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SCIENTIFIC COMMITTEE REPORT

Report by the Chairperson of the Scientific Review Panel

Prof Ilse Lubbe (University of Cape Town)

Of the 71 papers submitted to the refereed section (Track 1) of the SAAA/IAAER/AAFA International Conference (28-30 June 2017), hosted at the Champagne Sports Resort, Drakensberg, South Africa, 34 papers have been accepted for **conference proceedings** (representing 48%). The papers rejected for conference proceedings were transferred to Track 2, thereby giving these authors the opportunity to present their papers as non-refereed at the conference in order to gain valuable input from their peers to improve their papers. The result is that 57 papers are presented as 'work-in-progress', comprising of either papers not accepted for Track 1, or where authors have elected for their papers not to be included in the conference proceedings. This is in line with the SAAA's mission to foster a strong research culture in Southern African Accounting.

The collaboration with two journals, ***Meditari Accountancy Research*** and ***South African Journal of Accounting Research***, resulted in 16 papers being submitted to these journals. Some of these papers are presented at the conference. These papers have been submitted directly to these journals and are subject to the respective review processes of these journals. None of these papers have been considered for the SAAA conference proceedings.

Review process (Track 1, conference proceedings for refereed papers)

All papers submitted for the 'refereed category' were subjected to a rigorous process of blind peer review. The papers were submitted to two reviewers for blind review. Comments and suggested amendments from the reviewers were communicated to authors and the reviewers decided on the acceptance of the papers for inclusion in the conference proceedings. Reviewers also declined certain papers and these were not included in these conference proceedings. The accepted papers were contributed by academics representing a wide range of universities. The details are as follows:

SOUTH AFRICAN UNIVERSITIES / ENTITIES	**Track 1**
University of the Witwatersrand	13
University of South Africa	3
University of Cape Town	5
Nelson Mandela Metropolitan University	2
University of Pretoria	2
Cape Peninsula University of Technology	1
Monash South Africa	1
University of Free State	1
Central University of Technology	1
PWC	1
UNIVERSITIES OUTSIDE SOUTH AFRICA	
Universisdade do vale Rio dos Sinos, Brazil	2
Department of Accounting, University of Dar es Salaam, Tanzania	1
University of the West of Scotland, UK	1
TOTAL number of papers accepted for conference proceedings	**34**

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AUD004 **An Analysis of Audit Firm Tenure Disclosure in JSE Listed Companies by Those Charged with Governance**

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ABSTRACT:
In order to strengthen the auditor independence in South Africa and improve transparency of the auditor-client relationship, the Independent Regulatory Board for Auditors (IRBA) introduced the audit tenure disclosure rule in December 2015. This regulation requires the auditor to clearly disclose on the audit report the number of years that the audit firm has been appointed as auditor.

The objective of this research report is to investigate the nature and extent of the voluntary disclosure, if any, of audit firm tenure by management and those charged with governance in the annual reports of South African companies, prior to the introduction of this regulation by the regulator. Audit tenure disclosure is considered a proxy for the disclosure of the nature and the extent of accessible information for the users of the annual financial statements regarding auditor tenure and therefore the ability of the users to development an assessment of the threats to auditor independence based on long standing auditor-client relationships.

Using the annual reports of the one hundred largest companies (by market capitalisation) listed on the Johannesburg Stock Exchange, an analysis of audit firm tenure disclosure is performed. The findings show that that eighty five percent of the companies do not provide such disclosure prior to 31 December 2015 and as a result the information available for users of the audited financial statements for their consideration of the assessment of perceived auditor independence is very limited. The extent of the disclosure made by companies of the tenure of the auditor is very low and as a result the information available for users of the audited financial statements for their consideration of the assessment of perceived auditor independence is limited. Management and those charged with governance should be made aware of this lack of key disclosure.

Suggestions for the nature and extent of key information that would be useful for users of financial statements to understand the discharge of the audit committee’s duties during the period in regard to auditor independence, as well as to allow users to make their own informed assessment of auditor independence, is provided.

Key words: Auditor tenure; Auditor independence; Audit disclosure, Audit committee; Firm tenure

INTRODUCTION

It is commonly agreed that the provision of assurance services, most notably the external audit function, is an activity of public protection. In the eyes of the public, especially the investing public, but also all stakeholders of the company, the audit function provides the much needed stamp of credibility and assurance as to the fair presentation of the company's financial reporting.

As is clearly stated in international professional and ethics standards governing auditors, the auditor must act at all times with the required independence (both independence in mind and in appearance), objectivity and professional scepticism that is required for the purposes of providing an audit opinion on the fair presentation of the company's financial statements. Auditor independence is important because it has an impact on the quality of the audit. DeAngelo (1981), as quoted by many recent academic studies on audit quality, provides a useful definition of audit quality as the probability that:

(a) The auditor will uncover a breach of statutory or regulatory requirement; and

(b) Report the breach to the appropriate parties.

If auditors do not remain independent, they might be less likely to report irregularities or insist that financial statements be prepared to their satisfaction, thus, impairing audit quality (Carey and Simnett, 2006). This potentially lessens the credibility of the financial reporting process. If auditors do not remain independent, they might be less likely to report irregularities, through the various reporting channels available. The most notable reporting channel is via the auditor's opinion and the audit report in which that opinion is contained, and therefore a lack of independence could impair the quality of the audit report provided to the public and stakeholders of the company. Other reporting channels, to provide some South African examples, would be as a whistle blower to relevant regulatory authorities, such as the Independent Regulatory Board of Auditors (IRBA), the Financial Services Board (FSB), the JSE Ltd or the tax revenue authorities (SARS). The independence of the auditor encapsulates two dimensions of independence: independence in mind as well as independence in appearance to a reasonable third party (IFAC Code, 2006).

Often, as a result of corporate failures, regulators and the public cast doubt over the independence of assurance providers and auditors (Ye, Carson and Simnett, 2011). In an attempt to restore the confidence of the public and thus the credibility of assurance services, regulators implement direct measures to enhance the independence of the auditor (Ye, Carson and Simnett, 2011). Regulators introduce these measures to address the circumstances which may diminish the independence of the auditor (Tepalagul and Lin, 2015). One such circumstance is long tenure of the audit firm (Tepalagul and Lin, 2015).

Auditor independence in general and mandatory audit firm rotation (MAFR) in particular has received significant attention in recent years from regulators, academics and business practitioners (Fontaine, Khemakhem and Herda, 2016). This increased attention is due in part to the high-profile accounting scandals that have occurred in recent years such as Enron (2001), WorldCom (2001), Parmalat (2003), Bernard L. Madoff Investment Securities (2008) and Lehman Brothers (2008). Most national jurisdictions have had their own, albeit perhaps smaller, examples of financial fraud and associated accounting deceptions that have caused significant losses to many parties concerned. In South Africa, LeisureNet (2000), Regal Bank (2001), Randgold & Exploration (2005) and Fidentia (2007) are examples of corporate financial reporting fraud and irregularities. The global financial crisis during 2007-2009 again raised doubts regarding the ability of the auditor to detect and report financial irregularities, raising further concerns that financial reporting regulations needed to be strengthened. Sometimes the nature of the scandal is such that the responsibility for the fraud and negligence involved is shared by the auditors of the companies involved, the most famous example of this being the demise of largest accounting firm in the world at the time, Arthur Andersen, after the Enron collapse.

The South African audit industry regulator, the Independent Regulatory Board for Auditors (IRBA), expresses these concerns in recent correspondence as follows:
"High-profile cases associated with Enron, WorldCom, Parmalat, Tyco International, Royal Dutch Shell, Siemens, and locally with corporations such as Leisurenet, Randgold and Regal Bank have made auditors a focal point for governments and oversight structures. Coupled with the earlier comment that investors and the public are also demanding more information and transparency and have become more aware of their rights to be protected, these developments are resulting in global role players revisiting measures to address concerns around the independence of auditors." (IRBA, p.10, 2016d)

These are just a few examples among many whereby the quality of the audit function as a means to prevent or detect corporate fraud and gross mismanagement has been challenged (Laurion, Lawrence and Ryans, 2015). There has thus been an increased focus in the larger jurisdictions such as the United States and European Union where regulators have implemented regulations to improve auditor independence and audit quality. Mandatory audit firm rotation (MAFR), which refers to the legislated requirement for a limit on the number of years that an audit firm (not simply the audit practitioner) can be consecutively appointed, is one of the key regulations intended to improve auditor independence. Although the adoption of MAFR in the United States has not happened and is considered unlikely (Fontaine, Khemakhem and Herda, 2016), there have been significant other regulatory changes. MAFR has however, after much debate, been implemented in Europe as of 2014 (Hakwoon, Hyoik and Jong Eun, 2015; IRBA, 2016a), as well as other jurisdictions.

Mandating audit firm tenure disclosure

In an attempt to enhance the independence of auditors in South Africa and to afford users the ability to assess the potential threat that extended audit firm tenure may pose to the independence of the auditor, the IRBA has introduced a new regulation. IRBA has mandated a disclosure to be placed in the audit reports issued by audit firms on audits conducted on public interest entities. This disclosure must state clearly the number of years that the firm has audited the entity (IRBA, 2015).

LITERATURE REVIEW

The International Financial Reporting Standards (IFRS) state that the objective of financial statements is to provide information to users of the financial statements concerning the financial position and performance of an entity (International Financial Reporting Standards, 2007: IAS1). For primary users, such as investors, the financial statements of an entity form a foundation for the communication of this financial information. In terms of the International Standards on Auditing (ISA), it is the responsibility of the management of the entity to prepare the financial statements, not the auditor (International Auditing and Assurance Standards Board, ISA 210, 2009). This fact may result in the existence of information asymmetry between management and users of the financial statements (Johnson, Khurana and Reynolds, 2002). There is also the potential for conflicts of interest to occur between the users and management, which may arise due to conflicting incentives on the part of management to potentially misstate financial information (Antle, 1984; Johnson, Khurana and Reynolds, 2002).

As a result of the potential for conflicts of interest and information asymmetry, the role of an independent third party, the auditor, in providing assurance over the financial statements, may improve the quality of financial information communicated to users through the annual financial statements (Johnson, Khurana and Reynolds, 2002). The assurance provided by the auditor provides the users of the financial statements with a degree of confidence in the reliability of the financial information; in turn this allows the users an opportunity to engage in informed economic decision-making processes (Tepalagul and Lin, 2015; SAICA, 2016). The role of the auditor is therefore inextricably linked to the quality of the organisation's financial reporting.

The International Auditing and Assurance Standards Board (IAASB) acknowledges the observations of audit quality provided by academic literature and summates these findings into two components of the audit, which are "a technical component and a service component" (IAASB, p.3, 2012). The technical component of the audit encapsulates the considerations of auditor independence and auditor competence, whereas the service component of the audit considers the efficiency and the cost of the audit process (IAASB, 2012). The component of the audit which is considered of most importance is dependent on the relative stakeholder of the audit, and it is noted that the users of the financial statements consider the technical component of the audit to be of most significance (IAASB, 2012). The IAASB also acknowledges that different stakeholders within the audit will have different perceptions of the quality of the audit (IAASB, 2013).

Auditor independence

The IRBA requires all registered auditors to adhere to the IRBA Code of Professional Conduct, a code that conforms to the relevant international standards released by the International Ethics Standards Board for Accountants. Audit firms and members of audit teams involved in audits of financial statements and review engagements are required to be independent of audit clients, in order to protect the public's interest by providing independent audit opinions (IRBA, 2014). The code requires independence in mind, referring to the uninfluenced mind of the auditor, ensuring that the professional scepticism, professional judgement, and objectivity of the auditor remain unimpaired. The code also refers to independence in appearance, referring to a reasonable third party's perception of the auditor's independence (IRBA, 2014). Perception of audit quality is important, as described in the Code of Professional Conduct for auditors (IRBA, section 290:8, 2014), as the need for the auditor to have independence in both mind and in appearance to a third party. The audit opinion provides assurance to the market and the public of the credibility of the financial statements, as explained in the International Standards on Auditing, and therefore this independence of the auditor in the eyes of the market is necessary. According to the International Standards on Auditing ISA 200, the audit enhances the degree of confidence of intended users in the financial statements (International Auditing and Assurance Standards Board, ISA 200, 2009).

The two dimensions of independence are equally important constructs (Nieschwietz and Woolley, 2009). In accordance with the definition of audit quality proposed by DeAngelo (1981), independence in mind directly influences audit quality, as a lack of independence may lead the auditor to behave inappropriately if a misstatement or error has been detected. However, if the users of the financial statements on which the auditor is to provide an opinion have a poor perception of the independence of the auditor, the credibility of those financial statements is diminished (Kaplan and Mauldin, 2008; Daniels and Booker, 2011).

Tepalagul and Lin (2015) provided a framework with which to assess the circumstances that may have an effect on auditor independence and subsequently affect audit quality (refer to Figure 1 below). This framework is consistent with the Code of Professional Conduct framework for auditors to assess any potential threats to their independence, as well as the means to implement the appropriate measures to reduce the significance of an identified threat.

Regulation and laws in South Africa provide additional requirements for auditor independence, namely the Companies Act, 2008 of South Africa hereafter referred to as 'the Companies Act' and the King IV Report on Corporate Governance. The Companies Act requires the audit engagement partner of a statutory audit to rotate every five years (The Companies Act, No.71 of 2008:s92). Public companies and state owned companies are required to establish an audit committee (The Companies Act, 2008:s94). The committee is required to be appointed in terms of the King IV Report on Corporate Governance if the entity is listed, and accordingly all members of the committee should be considered sufficiently independent of the company (IoDSA, 2016). The audit committee then has the duty to nominate an independent auditor, define the level of non-assurance services allowed to be provided to the entity by the auditor, as well as to prepare a report for inclusion in the company's annual financial statements which includes a declaration by the committee that the committee has assessed the independence of the external auditor (The Companies Act, 2008:s94).

Audit firm tenure and independence

The focus of this paper is on the information available to the user of the financial statement regarding the threat to auditor independence based on long audit firm tenure. Audit tenure is the length of time in years that the audit firm has been appointed by the client. Regulators and researchers have over many years researched and debated audit firm rotation as a means for enhancing the independence of the auditor (Kaplan and Mauldin, 2008; Jenkins and Vermeer, 2013) as auditor rotation will, among other things, limit the tenure of the audit firm. Audit tenure has long been considered a significant threat to auditor independence. According to Casterella and Johnston (2013) the proponents of regulations that require shorter audit tenures would result in higher quality audits due to enhanced auditor independence. In contrast, opponents believe that audit quality would decline because the new auditor would lack experience with the client (Casterella and Johnston, 2013).

Tepalagul and Lin (2015), as can been seen represented in Figure 1 below, show a widely accepted theoretical framework for understanding auditor independence and its link to audit quality. The audit profession in most international jurisdictions is a for-profit and competitive enterprise as well as a public practice. Therefore, like any business, the auditors have profit incentives to yield to client pressure to retain their business, especially the business of their most significant clients, which in turn compromises auditor independence (Tepalagul and Lin, 2015). Added to this potential compromise of independence is the reality that many audit clients require non-assurance services from their auditors, which are often more lucrative than the audit fee (Tepalagul and Lin, 2015), possibly resulting again in compromised independence in the audit engagement (Tepalagul and Lin, 2015). These threats to independence are explained at length in the IFAC Code of Professional Conduct whereby numerous guidelines are provided to enable the auditor to manage these conflicts of interest. Long auditor-client tenure and client affiliation with audit firms create familiarity between the parties as relationships form (IFAC Code, 2006). The profits from non-audit services create self-interest threats to independence. These threats may threaten auditor independence and audit quality.

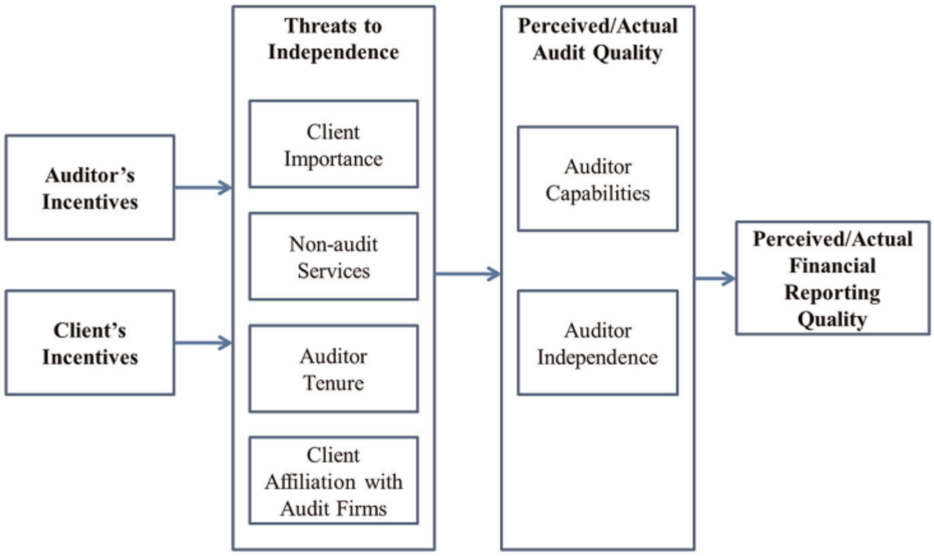

Figure 1. A framework for assessing the impact of auditor independence on audit quality.

Source: Tepalagul and Lin (2015)

Prior research has confirmed a positive association between auditor expertise and audit quality. For example, client-specific experience, a proxy for expertise, enhances auditors' ability to respond to fraud indicators (Brazel, Carpenter and Jenkins, 2010); and industry expertise has been found to be positively associated with financial reporting quality. Jackson, Moldrich and Roebuck (2008) found that audit quality increases with audit firm tenure, when proxied by the propensity to issue a going-concern opinion. This was also confirmed by the findings of Ruiz-Barbadillo, Gómez-Aguilar and Carrera (2009). Cameran et al. (2015) concluded that the quality of audited earnings declines in the first three years following rotation, relative to later years of auditor tenure.

In recognition of the possibility for long audit tenure to impair auditor independence, IRBA issued the regulation for audit firms to disclose audit tenure in the audit reports on the 4th of December 2015. The primary reason provided by the regulator was to raise transparency regarding the firm's tenure and not that of the individual auditor which is an objective in agreement with regulations in international jurisdictions (IRBA, 2015).

The disclosure of the tenure of the auditor will allow for a degree of transparency in regards to the audit firm-client relationship and allow for the users of the audited annual financial statements the necessary information to assess any threats that the length of the relationship might pose to auditor independence in their perception of auditor independence. Most would agree that it is important to provide the users of the financial statements with this information so that they are able to make their own assessment of whether the auditor is likely to be independent and whether perhaps they should lobby for shareholders to consider replacing them. This is the intent of the IRBA disclosure rule.

However, the academic literature is not clear on whether audit tenure really does impair auditor independence or audit quality. An important study by Tepalagul and Lin (2015) consisted of a comprehensive review of academic research pertaining to auditor independence and audit quality. Through a review of published articles during the period 1976-2013 in nine leading journals related to auditing, most studies concluded that long auditor tenure does not impair independence (Tepalagul and Lin, 2015).

A Belgian study by Knechel and Vanstraelen (2007) that used a sample of stressed bankrupt and non-bankrupt companies, found that auditors do not become less independent over time nor do they become better at predicting bankruptcy. According to Knechel and Vanstraelen (2007), the evidence for tenure either increasing or decreasing audit quality is weak.

Other researchers produce conflicting findings on the association between auditor tenure and auditor behaviour. In a study of audits of US public schools, Deis and Giroux (1992) report that quality-control findings decrease as auditor tenure lengthens. Using data for audit partner tenure in Australia for a period where partner rotation was not mandatory, the relationship between audit quality and long audit partner tenure was investigated by Carey and Simnett (2006). The three measures (proxies) of audit quality examined were 1) the auditor's propensity to issue a going concern opinion for distressed companies, 2) the direction and amount of abnormal working capital accruals, and 3) just beating (missing) earnings benchmarks. For long tenure observations the results showed a lower propensity to issue a going concern opinion and some evidence of just beating (missing) earnings benchmarks, consistent with deterioration in audit quality associated with long audit partner tenure (Carey and Simnett, 2006).

Further conflicting results were identified by Johnson, Khurana, and Kenneth Reynolds (2002) who examined whether the length of the relationship between a company and an audit firm (audit firm tenure) is associated with financial reporting quality. Johnson et al. (2002) categorised auditor-client relationships into periods of short, medium and long tenures. Using two proxies for financial reporting quality, based on accounting accruals, and a sample of large audit firm clients matched on industry and size, Johnson et al. (2002) found that relative to medium audit firm tenures of four to eight years, short audit firm tenures of two to three years are associated with lower-quality financial reporting. Again, in contrast to the shorter periods, Johnson et al. (2002) found no evidence of reduced financial reporting quality for longer audit firm tenures of nine or more years.

A US study on the raising of going concern (financial distress) uncertainties by auditors suggests that audit failures are more likely in the early years of the auditor-client relationship (Geiger and Raghunandan, 2002). The results were consistent with the position that auditors may be more influenced by their newly obtained clients in the earlier years of the engagement. Therefore this does not support that auditor rotation be made mandatory or that long tenure reduces audit quality.

Bamber and Iyer (2007) used a theory-based measure for the extent to which auditors identify with a client, which was then used to directly measure auditors' attachment to the client and consequently the threat of this attachment to auditors' objectivity. The responses of 252 practising auditors were obtained, providing support for the predictions of Bamber and Iyer (2007). Specifically, Bamber and Iyer (2007) found that auditors do identify with their clients and that auditors who identify more with a client are more likely to agree with the client preferred position on an audit and financial reporting matter. However, more experienced auditors and auditors who exhibit higher levels of professional identification are less likely to acquiesce to the client's position. Differing incentives were identified for the partner in comparison to the firm. The incentive of the individual audit partner may conflict with that of the audit firm so that long partner tenure increases the likelihood of the auditor acquiescing to the client's preferences, whereas audit firm tenure is associated with the decreased likelihood of auditor concessions (Bamber and Iyer, 2007). By looking at the differing incentives of the firm as a whole, compared to that of the individual partner in the firm, the results implies that, unlike an audit partner, an audit firm may have stronger reputational incentives to remain independent. Therefore, rotating the firm in a system of MAFR, as opposed to the partner, may not be the best means to achieve independence and audit quality.

An investigation into the effects of audit partner rotation among US publicly listed companies by Laurion et al. (2015) used a sample of US partner rotations and non-rotations, revealed that partner rotations result in substantial increases in material restatements (124.8%) and total valuation allowances and reserves (0.8% of assets). This suggests that US partner rotations do provide a fresh look at the audit engagement.

Researchers have also explored the impact of partner rotation on auditor effort and audit quality. There is empirical evidence that the effort provided by the auditor, or invested by the auditor into the engagement, increases following a rotation of the audit partner. Bedard and Johnstone (2010) showed evidence that planned engagement effort increases following partner rotation, suggesting that new partners apply themselves and their resources more to gain client knowledge in the first year on the engagement. This suggests that new partners work harder to reduce the information asymmetry that they face in directing a first-time audit (Bedard and Johnstone, 2010). In this way, a "fresh set of eyes" is a benefit to the audit and would be a positive aspect of partner or firm rotation (Bedard and Johnstone, 2010).

In conclusion, there are mixed results around the effect that partner rotation has on independence and audit quality. However, as noted by Tepalagul and Lin (2015), most studies conclude that audit tenure does not impair independence, even though there does appear to be benefits to partner rotation, such as a more conservative and diligent approach to the audit by the incoming partner.

Investor perception of audit quality

Moon and Ghosh (2005) attempted to examine investors' perspectives of audit quality as affected by audit firm tenure. The foundation of the study rests on the premise that audited financial statements will be less reliable if the users of those statements, specifically investors and information intermediaries, perceive audit quality to be reduced as a result of the effect of a long audit tenure on the independence of the auditor (Moon and Ghosh, 2005). To proxy investor's perception of earnings quality and thus audit quality, the authors make use of "earnings response coefficients from returns-earnings regressions" (Moon and Ghosh, p.587, 2005). Moon and Ghosh (2005) find that as audit tenure increases the magnitude of the earnings response coefficients increases, which leads the authors to conclude that investors perceive audit tenure as a means to impact audit quality positively.

Public perception of auditor independence

Studies have also attempted to isolate the effect of audit firm tenure on the independence of the auditor. However, researchers are unable to observe the state of mind of the auditor to assess the auditor's independence in mind, therefore research on the independence of the auditor focuses on specific users' perceptions of independence (Kaplan and Mauldin, 2008; Nieschwietz and Woolley, 2009).

In an experiment-based study, Kaplan and Mauldin (2008) used the responses of Master of Business Administration students to a given theoretical case, as a representation of non-professionals' perceptions of the auditor's independence as affected by either audit partner rotation or audit firm rotation. The perceptions of the participants in the study did not show significant differences between partner or firm rotation, leading the authors to conclude that mandatory audit firm rotation may not have a beneficial effect on the perceptions of non-professional investors of auditor independence (Kaplan and Mauldin, 2008).

A study examining the perceptions of private and institutional investors in the United Kingdom was conducted by means of a questionnaire, enquiring of the sample participants how they perceive certain audit firm and client relationships (Dart, 2011). A long audit firm-client relationship was a factor explored and a majority of the participants in the study disagreed that the length of the audit would impair the independence of the auditor. Upon further analysis, Dart (2011) found that institutional investors were less concerned by the impact of a long audit tenure on the independence of the auditor in comparison to private investors.

Practitioner perceptions of auditor independence

In a recent descriptive study conducted by Harber (2016), open-ended interviews were conducted with leading audit practitioners in South Africa. The purpose of the study was to gauge the perceptions of a small group of experienced registered auditors (audit partners) on the status of auditor independence in the audits of public interest entities in a South African context. The study did not aim to form a representative view of the auditing profession as a whole on the status of auditor independence, but rather to identify the breadth of the prevailing views, concerns and recommendations held by practitioners (Harber, 2016). Fourteen partners of audit firms in South Africa formed the selection (not a representative sample) in the study, from both large and mid-size audit firms. All the partners were considered senior and highly experienced, ranging between seven years as a practicing registered auditor and thirty-three years. The average number of years as a practicing registered auditor of all interviewees was twenty-two years. Seven of the partners were either regional or national managing partners in the firms and therefore in key leadership and strategic roles. The remainder were senior partners who also held significant leadership responsibilities and portfolios within their respective firms or network of firms (Harber, 2016).

Most audit partners interviewed did not believe that any changes to regulations are necessary to address auditor independence because the policies, regulations and structures in place currently are sufficient. They believe that the profession must be allowed the freedom to exercise its professional judgement and adherence to the ethical codes of conduct and that regulation restricts their ability to do that (Harber, 2016).

The partners expressed a strong belief that the public inspections process itself needs to be re-looked at by the regulator and moved in a direction that allows professional judgement and less compliance focus. The audit committee's role in appointing suitably independent auditors and continually assessing any factors such as tenure and non-assurance fees, that may compromise that independence, is crucial (Harber, 2016).

Most audit partners (11 of 14) expressed the view that there is no problem with auditor independence in reality, but rather that public perception and public misunderstanding of the audit function, was the issue. Rather than respond with more regulation (such a MAFR), they would have the regulator address public understanding of the role (and the limitations) of the audit function (Harber, 2016).

RESEARCH PROBLEM AND OBJECTIVE

There is a degree of mixed results in the literature regarding whether or not audit tenure impairs the quality of audits. However, the findings do favour the view that audit tenure does not impair independence and may even result in increased audit quality through gained institutional experience. There is also evidence that the perception of auditor independence (in the minds of the investing public) is important and according to audit practitioners, often misunderstood (Harber, 2016). This perception has been expressed as a reason why the regulator and many in the public are in favour of MAFR and further auditor regulation. The IRBA has responded by requiring auditors in South Africa to disclose audit tenure on the face of the audit reports to aid users of financial statements in making their own informed judgements. The new rule is to be implemented for audit reports issued on or after 31 December 2015.

In light of this new audit tenure regulation and due to the relevance of independence to the external audit function, there is a question as to whether audit committees and management are assisting users of financial statements in assessing auditor independence through adequate disclosure of tenure and other factors considered that impact on independence. Since the audit firm must disclose auditor tenure, what information is forthcoming from the other side of the engagement, i.e. the audit committee?

It is submitted that a simple disclosure of audit firm tenure by the board of a company is a proxy for the disclosure of further information from those charged with governance that allow users of financial statements in making their own informed judgements. There is uncertainty regarding whether those charged with governance have been providing this disclosure before it was mandatory for auditors themselves to provide it.

The objective of this study is to investigate the nature and extent of disclosure of audit tenure in annual reports, prior to the audit tenure disclosure rule issued by the IRBA. Disclosure in the annual report, outside of the auditor's report, is provided by management and/or those charged with governance. The audit committee and the board in a public-interest entity have a legal obligation in terms of section 94 of the Companies Act, 2008 to formally assess the independence of the auditor.

In terms of section 94(7)(f) of the Companies Act, an audit committee of a company has the duty to prepare a report, to be included in the annual financial statements for that financial year

- *describing how the audit committee carried out its functions;*
- *stating whether the audit committee is satisfied that the auditor was independent of the company; and*
- *commenting in any way the committee considers appropriate on the financial statements, the accounting practices and the internal financial control of the company*

(The Companies Act, 2008)

In terms of the King III Report on Corporate Governance, which was effective in the period to which the annual reports analysed were issued, principle 3.10 recommends the audit committee report to the board and shareholders on how it has discharged its duties (IoDSA, 2009). This is consistent with the principles in the recently released King IV Report (effective November 2016).

The perception of auditor independence is a very important aspect of the concept of independence, as explained by the Code of Professional Conduct's requirement to be "independent in mind" by considering the opinions that could be formed about auditor independence in the minds of reasonable third parties (IFAC Code, 2006). It stands to reason, and is explained clearly in the King Reports on Corporate Governance, that it is therefore the obligation of those charged with governance to provide users of financial statements with a sufficient degree of disclosure regarding matters of importance to the understanding of the financial statements. The board, in addition to the auditor, should disclosure audit tenure in the annual report, and provide the users of the financial statements reasoning as to why they assess the auditor to be sufficiently independent. Disclosure of this nature is an indication of good corporate governance disclosure. Audit firm disclosure and justification of auditor independence should come from those charged with governance and should not simply be an audit tenure disclosure by the auditor on the audit report only.

This study will therefore document which of South Africa's largest companies provide such disclosure and whether any auditors have proactively also done so in their audit reports, prior to the introduction of the IRBA audit firm tenure disclosure rule. This investigation will allow for an assessment of the extent to which information, regarding the tenure of the audit firm, was available to the users of the financial statements for use in their consideration of their perception of auditor independence.

RESEARCH METHODOLOGY

The primary purpose of this study is to determine the nature and extent of the disclosure relating to the tenure of the audit firm in South African companies' most recent annual reports and annual integrated reports, prior to the introduction of the new audit tenure disclosure rule.

Data Selection

Companies were selected based on sets of primary and secondary criteria.

Primary Criteria

The companies to be selected in the sample had to meet three primary criteria:

1. The company is required to have prepared annual financial statements for inclusion in an annual report published by the company.
2. The annual financial statements of the company are audited.
3. The company is subject to the new audit tenure disclosure rule as of 31 December 2015, as required by IRBA.

The primary criteria were selected for the following reasons:

Criteria 1: The annual financial statements, included in the annual report, are to be analysed to determine the nature and extent of any disclosure of the length of audit tenure, made to the users of those statements. Without an annual report no determination can be made.

Criteria 2: The study seeks to research a specified disclosure - audit firm tenure. If a company's annual financial statements are not audited then no audit firm is engaged in a relationship with the company and therefore there is no audit firm tenure.

Criteria 3: The study aims to determine the extent of audit tenure disclosure prior to the regulation mandating audit firm tenure disclosure. IRBA requires only certain companies to adhere to this audit tenure disclosure. Therefore only those companies that are subject to the new regulation were selected (IRBA, 2015). This selection was made as these are the companies which IRBA considers to have a high level of public interest as the regulation applies to public interest entities as defined in the IRBA code (IRBA, 2015).

Based on the above criteria, the companies selected for this research study were companies with a listing on the Johannesburg Stock Exchange. A listed company meets the definition of a public company as stated in the Companies Act 2008 in section 1, and as such the company is required to prepare annual financial statements, which are to be audited (The Companies Act, 2008:s30). The preparation of audited annual financial statements is also a listing requirement of the Johannesburg Stock Exchange (Johannesburg Stock Exchange Limited, 2015). A listed company also meets the definition of a public interest entity as defined in the IRBA code in section 290.25, and as such is required to adhere to the mandatory audit tenure disclosure rule.

Therefore, companies listed on the Johannesburg Stock Exchange meet all three of the primary criteria.

Secondary Criteria

Secondary criteria for selection in the sample was as follows:

1. The company had prepared audited financial statements for inclusion within an annual report for a financial year ending between 31 December 2014 and 30 December 2015.
2. The company had a market capitalisation, as of July 2016, greater than R10 billion.

The secondary criteria were selected for the following reasons:

Criteria 1: The audit tenure disclosure rule required by IRBA is to be applied for financial years ending on or after 31 December 2015. Therefore the annual reports that were to be analysed had to be prepared before this date in order to be able to document if the tenure of the audit firm was disclosed, prior to the introduction of the regulation.

Criteria 2: The Johannesburg Stock Exchange (JSE) defines market capitalisation as equating to the total value of a company listed on the exchange, which is calculated by multiplying the share price of the company by the number of shares that the company has in issue (Johannesburg Stock Exchange [JSE], 2013). The JSE categorises the market capitalisation of companies into either small, medium or large according to two different sets of criteria.

The first definition is made as follows:

- Large: Companies ranked in the Top 40 Index
- Medium: Companies ranked from number 41 to 100 based on market capitalisation
- Small: Companies not ranked in the top 100 by market capitalisation

The second definition is made as follows:

- Large: A market capitalisation of over R10 billion
- Medium: A market capitalisation of between R1 billion and R10 billion
- Small: A market capitalisation below R1 billion

This study has selected companies of which have a market capitalisation categorised as large. Under the provided definitions, the Top 40 Index represents approximately 85% of the market capitalisation of the entire exchange (as of July 2016), in comparison to the second definition, which represented approximately 97% (as of July 2016). This second definition was selected due to the larger representation of the stock exchange as a whole.

The Sample

As of July 2016, 101 companies had a market capitalisation exceeding R10 billion. 100 companies were selected for inclusion in the sample based on meeting the sets of primary and secondary criteria. One company, The Bid Corporation Limited, was removed from the sample as the company was recently formed in 2016 and as a result the company had published no annual report.

Sample Descriptive Statistics:

- The companies accounted for roughly 97% of the market capitalisation of the entire Johannesburg Stock Exchange
- The 100 companies constitute two Johannesburg Stock Exchange indices, namely the Top 40 Index and the MidCap Index
- In terms of the Industry Classification Benchmark (ICB) according to industry, seven of the nine industry classifications were represented
- Representation in the sample based on ICB industry classification:
    - Oil and Gas: 0%
    - Basic Materials: 21%
    - Industrials: 8%
    - Consumer Goods: 12%
    - Healthcare: 4%
    - Consumer services: 15%
    - Telecommunications: 4%
    - Utilities: 0%
    - Financials: 35%
    - Technology: 1%
- Representation in the sample based on sector analysis:
    - SA industrials: 44%
    - SA Resources: 21%
    - SA Financials: 35%
- 19% of the companies in the sample had a primary listing other than on the Johannesburg Stock Exchange
- The most significant primary listing on an exchange other than the Johannesburg Stock Exchange was a listing on the London Stock Exchange. 13% of the companies have a primary listing on the London stock exchange.
- 21% of companies have a secondary listing on other international exchanges.

Data Collection Process

The annual reports of the sampled companies for the specified period were obtained from each of the companies' websites. In some cases companies had separately published their full statutory annual financial statements from their annual report and in those cases both the annual report and the annual financial statements were obtained. Companies listed on the Johannesburg Stock Exchange are not required, in terms of the listing requirements, to issue an integrated report, but if the respective company had published an integrated report then this was obtained in addition to the annual report (Johannesburg Stock Exchange Limited, 2015).

A predefined list of attributes was developed, based on the purpose and aims of this research study, which would be used to search for the relevant information within the obtained reports. The list of attributes is as follows:

- Disclosure of audit firm tenure – a yes or no attribute.
- The section of the report where the tenure of the audit firm was disclosed, if such information was disclosed.
- Additional qualitative information disclosed surrounding the circumstances of audit firm tenure, in addition to the length of the tenure of the audit firm, if such information was disclosed. The documentation of this information will allow for comment and further analysis on the nature and context of the disclosure, if such disclosure was made.
- The audit firm that audited the company's financial statements.
- The primary exchange that the company is listed on. Stock exchanges in international jurisdictions have differing listing requirements to those of the Johannesburg Stock Exchange. International jurisdictions also have specific laws and regulations, which companies within those jurisdictions must adhere to. As discussed in the first section of this report, the international regulatory environment with regards to regulations addressing the tenure of audit firms is diverse and therefore it is relevant to document the primary exchange of the company so as to evaluate the laws and regulations that the company is subject to as a result of the place of the company's listing.
- Secondary exchange listing. The reasoning for the inclusion of this attribute is the same as that discussed under primary exchange above.

A text analysis was performed on the annual reports of the one hundred companies and the above attributes were entered into a spreadsheet using Microsoft Excel.

PRESENTATION AND DISCUSSION OF RESULTS

The new regulation mandating the disclosure of the tenure of the auditor (the audit tenure rule) is a mandatory disclosure requirement for inclusion in South African audit reports for financial years ending on or after 31 December 2015. Therefore where there was audit tenure disclosure in the audit report before this date (by the auditor) or in other parts of the annual report (by management or those charged with governance), it was provided either in the spirit of good corporate governance disclosure, or in accordance with international (not South African) regulations, which may apply to the reporting entity with operations in other jurisdictions.

Of the one hundred annual reports and annual financial statements that were reviewed and analysed, it was found that only fifteen companies had disclosed the number of years that the audit firm had been the auditor of the respective company (audit tenure). This is less than expected. All of these disclosures occurred outside of the audit report, which was expected, since the auditors had not yet applied the auditor tenure rule. Eighty-five companies therefore did not provide disclosure of audit tenure anywhere in the audit report. Of the fifteen instances of disclosure, this information was disclosed in either the Audit Committee Report for the year, or in a report covering corporate governance matters, produced by the board.

Refer to Table 1 below for more detail.

Table 1: The list of companies that provided audit tenure disclosure

Company	Primary Listing	Financial Year	Auditor	Section of the Annual Report
British American Tobacco plc	London Stock Exchange	31 December 2014	PricewaterhouseCoopers	Governance Section - Directors Report - Audit and Accountability
SABMiller plc	London Stock Exchange	31 March 2015	PricewaterhouseCoopers	Audit Committee Report
BHP Billiton plc	London Stock Exchange	30 June 2015	KPMG	Risk and Audit Committee Report
Compagnie Financiere Richemont SA	Swiss Exchange	31 March 2015	PricewaterhouseCoopers	Corporate Governance
Glencore plc	London Stock Exchange	31 December 2014	Deloitte	Corporate Governance Report - Audit Committee Report
Old Mutual plc	London Stock Exchange	31 December 2014	KPMG	Governance Section - Audit Arrangements
Aspen Pharmacare Holdings Ltd	Johannesburg Stock Exchange	30 June 2015	PricewaterhouseCoopers	Audit & Risk Committee Report
Mondi plc	London Stock Exchange	31 December 2014	Deloitte	Audit Committee Report
Mondi Ltd	Johannesburg Stock Exchange	31 December 2014	Deloitte	Audit Committee Report
Investec plc	London Stock Exchange	31 March 2015	Ernst & Young	Corporate governance and corporate responsibility Report
Intu Properties plc	London Stock Exchange	31 December 2014	PricewaterhouseCoopers	Governance - Audit Committee Report
New Europe Property Investments plc	London Stock Exchange	31 December 2014	PricewaterhouseCoopers	Corporate Governance
Capital & Counties Properties plc	London Stock Exchange	31 December 2014	PricewaterhouseCoopers	Audit Committee Report
Redefine International plc	London Stock Exchange	31 August 2015	KPMG	Audit & Risk Committee Report
Lonmin plc	London Stock Exchange	30 September 2015	KPMG	Governance - Audit & Risk Committee Report

As discussed in the research methodology section, it was necessary to document the company's primary listing. Stock exchanges require constituents to comply with their specific listing requirements, as well as the laws and regulations within the country of that exchange. A majority (13 of 15) of the companies that had disclosed the audit tenure have a primary listing on an international exchange, other than the Johannesburg Stock Exchange.

Companies with a primary listing on the London Stock Exchange comprised twelve of the fifteen companies who had provided disclosure in regards to audit tenure. Companies listed on the London Stock Exchange (LSE) are required to comply with the Listing Rules of this exchange. In terms of the Listing Rules of the LSE, companies with a premium listing on the LSE are required to report their compliance with the UK Corporate Governance code, amongst other regulations. The code is not prescriptive in terms of rules, but rather requires companies to apply the principles of the code on a "comply or explain" basis (Financial Conduct Authority, 2016:27), similar to the South African King III Report basis.

The UK Corporate Governance Code requires a section of a company's annual report to outline the duties performed by the audit committee. Within this section information regarding the tenure of the current audit firm should be disclosed. Of the twelve companies that have a primary listing on the LSE, eleven are said to have a premium listing on the exchange and therefore are subject to comply with the requirement to disclose the tenure of the audit firm.

New Europe Property Investments is listed on the Alternative Investment Market (AIM) sub-market of the LSE and therefore is not considered to have a premium listing. Companies listed on the AIM are not required to comply with the UK Corporate Governance Code, but may choose to apply the principles of the code or may choose to apply a different framework of corporate governance better suited to the needs of the company, as long as a declaration as such has been made by the company as to which code the company has chosen to apply. New Europe Property Investments has elected to apply the Quoted Companies Alliance Corporate Governance Guidelines for Smaller Quoted Companies.

Compagnie Financiere Richemont has a listing on the Swiss Exchange. In terms of the rules of the exchange, all listed companies are required to apply the Corporate Governance Directive. The Directive requires that the report issued by the company should disclose information as to when the current auditors of the company were formally elected for the first time. Compagnie Financiere Richemont is compliant with the directive in terms of the disclosure of audit firm tenure.

Considering the above, it is concluded that twelve of the fifteen companies, which had disclosed the tenure of the audit firm, had done so as a result of compliance with the respective listing requirements of their primary exchange.

The remaining three of the fifteen companies that provided disclosure, namely, New Europe Property Investments Plc., Mondi Limited, and Aspen Pharmacare Holdings Limited, are not required by regulation to disclose the tenure of the audit firm. Mondi Limited and Aspen Pharmacare Holdings limited have primary listings on the Johannesburg stock exchange and no other secondary listings. As such, these companies are not subject to other international regulations in regards to audit tenure disclosure. New Europe Property Investments Plc. is also not required by regulation to disclose audit tenure, as it is not listed on the main board of the LSE. Consequently, these three companies have provided auditor tenure disclosure voluntarily so as to allow the users of the financial statements to better assess the independence and suitability of the appointed audit firm.

Application to stakeholder perceptions

Perception of audit quality differs amongst different users of the audited financial statements. The different perceptions of audit quality arise as a result of the different stakeholder's degree of involvement within the audit. The perception of audit quality are also affected by the information that the users of the audited financial statements have access. In a survey conducted by the IAASB, it was found that users of the financial statements, specifically investors, consider that the perception of the independence of the auditor to be an important determinant in audit quality (IAASB, 2013).

Therefore, users of the financial statements in developing their perception of the independence of the auditor and by implication, audit quality, rely on information that is accessible in regards to the audit. The Public Company Accounting Oversight Board (PCAOB) states that the ability of the users of the audited financial statements to assess the quality of the audit is limited by the information regarding the audit that is provided. The PCAOB concluded and communicated to its stakeholders that there is value to be added through disclosure of such information that may be useful for users to form opinions in this regard (PCAOB, 2015).

The new audit tenure rule mandated by the IRBA to increase the degree of transparency in regards to auditor independence allows users the opportunity to assess auditor independence for themselves. Users of financial statements are now provided with important information, namely the tenure of the audit firm, to allow them to consider for themselves any threats that may arise and impact the independence of the auditor as a result of the length of the audit firm-client relationship. As can be clearly seen from the results of this study, this information was clearly not available for most of the large exchange listed companies before the IRBA introduced the rule.

The assessment of the extent of audit tenure disclosure prior to the introduction of the audit tenure rule sheds light on the extent of information that was available to the users of the financial statements in their assessment of the independence of the auditor. Eighty-five of the one hundred company annual reports analysed did not disclose information about the tenure of the audit firm. The public therefore had limited ability in their assessment of the potential threat of the long association between the auditor and the client. Management and those charged with governance in these companies clearly did not prioritise such disclosure, either because they were not aware of the importance of such disclosure to the users of the financial statements, or simply because such disclosure, not being a regulatory requirement in South Africa, was not in their best interests to disclose.

CONCLUSION AND AREAS FOR FURTHER RESEARCH

It is therefore submitted, considering the importance of auditor independence in the mind of the public, and the obligation of the board of a company to provide users of financial statements with a sufficient degree of disclosure regarding matters of importance to the understanding of the financial statements, that the board, in addition to the auditor, should disclosure audit tenure in the annual report, and provide the users of the financial statements reasoning as to why they assess the auditor to be sufficiently independent. Disclosure of this nature is an indication of good corporate governance disclosure. Audit firm disclosure and justification of auditor independence should come from those charged with governance and should not simply be an audit tenure disclosure by the auditor on the audit report only.

This study has reported which of South Africa's largest public interest companies provide such disclosure and whether any auditors have proactively also done so in their audit reports, prior to the introduction of the IRBA audit firm tenure disclosure rule. In light of the new regulation issued by the IRBA, this study set out to explore the nature and extent of disclosure made by companies of audit firm tenure prior to the introduction of the IRBA audit tenure disclosure rule in South Africa. The main finding of this study shows that the extent of the disclosure made by companies of the tenure of the auditor is low in a South African context and as a result the information available for users of the audited financial statements for their consideration of the assessment of perceived auditor independence is limited. Management and those charged with governance should be made aware of this lack of key disclosure.

The limited availability of information may be partly to blame for the findings by Harber (2016) that leading audit practitioners within South Africa believe that the public's supposed negative perception of auditor independence differs significantly to that of the independence of the auditor in reality. How can users of financials statements accurately assess for themselves the independence of the audit firm if those charged with governing the company do not provide sufficient detail in which they can base that judgement? Auditor tenure is just one (albeit a particularly important) piece of information that will both inform the users of the financial statements with regard to the duties and judgements made by the audit committee, as well allow the users to themselves form an opinion as to whether the audit committee should be considering placing the audit out for tender. It is submitted therefore, that audit tenure disclosure by the company (not by the auditor) is a useful proxy for the quality of an audit committee's disclosure and discussion in the annual report of the discharge of their duties in regard to the independence of the appointed auditor. The audit committee specifically, and the board in general, have an obligation to inform the users of the financial statements in this regard. The results of this study show clearly that very few audit committees are providing the information required by users of financial statements to understand auditor independence and how the audit committee has assessed this very important contributor to quality financial reporting. Audit committees must provide more disclosure than simply that which is required by regulation.

A suggestion of the nature such disclosures, although not exhaustive, are as follows:

- The audit fees payable, split between assurance and non-assurance services.
- The process followed and key factors considerations for the assessing of the suitability of the audit firm, as well as their independence from the company, especially in light of the common threats to auditor independence as illustrated by Tepalagul and Lin (2015) in Figure 1 above. The independence of the audit partner and the audit firm itself should be considered and disclosed separately.
- The nature and extent of non-assurance services provided by the audit firm should be considered and disclosed separately.
- The annual report of the audit committee is the document that should contain these disclosures for the benefit of the users of the financial statements.

Future research implications have emerged from this study. Research is required to understand the reasons why management and those charged with governance have not provided key disclosures to suit the needs of users in regard to auditor independence and suitability. Research is required to assess the effectiveness of the mandatory disclosure of audit firm tenure as a means of providing information to the users of the financial statements for their use in their assessment of perceived auditor independence. The usefulness of such disclosures, and the best format and nature for such disclosures, should be studied. Investors in particular may have information requirements that are different to those of regulators, those who enter into business contracts with the company, or the general public. Therefore the needs of various users of financial statements can be explored.

The findings of this study support the introduction of the regulation by IRBA, which mandated the disclosure of the audit firm's tenure with the objective of enhancing the degree of transparency in regards to the association between audit firms and their audit clients. However, it is clear that those charged with governance do not provide necessary disclosures and need to address this. The newly effective requirements of the King IV Report on Corporate Governance (superseding the King III Report) need to be understood by those charged with governance of listed companies and used to improve the current lack of auditor tenure and auditor independence disclosure in the annual reports that has been found in this study.

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AUD006 Do independent checks positively influence the perceived financial sustainability of South African SMMEs?

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ABSTRACT:
Since the late 1980s, many business entities around the globe have fortified their overall sustainability by making use of internal control systems. These systems are predominantly based on the COSO Integrated Internal Control Framework, and have the main responsibility to provide reasonable assurance to management that relevant business objectives will be attained in the foreseeable future. In a South African dispensation, previous studies show that Small, Medium and Micro Enterprises (SMMEs) – comprising 90% of all operational business entities in the country – make use of customised internal control systems which do not add substantial value in the mitigation of risks. Taking into account that 70% of South African SMMEs fail after being in operation for only four years, it becomes apparent why these business entities are believed to have one of the worst (financial) sustainability rates in the world. One manner in which business sustainability can be reasonably fortified is by enhancing internal control – by deploying a sound internal control system. A sound system of internal control comprises five elements, one of which is internal control activities. For this study empirical research was conducted to determine whether independent checks, as a component of internal control activities, evident in South African SMMEs had a positive influence on these business entities' perceived financial sustainability. Stemming from the results it was found that there was an association between the two phenomena, but they were not statistically significant.

Key words: Internal control activities, independent checks, sustainability, financial sustainability, SMMEs

INTRODUCTION

The adequacy and effectiveness of internal control systems have a direct influence on the overall sustainability of any business entity (Zhou et al., 2016; Rendon & Rendon, 2016). Essentially an adequate and effective internal control system should provide reasonable assurance to management on the attainment of relevant business objectives in the foreseeable future (Spira & Page, 2003; McNally, 2013), by placing emphasis on: 1) the effectiveness, efficiency and economy of business operations, 2) a business entity's compliance with applicable legislation, rules, policies and procedures, 3) the safeguarding of a business entity's assets, and 4) the integrity of financial and non-financial information of a business entity (Adeniyi & Aramide, 2014). Across the globe, internal control systems are usually implemented in business entities based on at least one formal internal control framework[1]. One of these internal control frameworks is that of the COSO Integrated Internal Control Framework of 1992, as revised in 2013 (Baker Tilly, 2014). This particular internal control framework is regarded as the most popular and reliable as it is used by an array of business entities worldwide, including that of small businesses (Dickins et al., 2011; Akoka & Wattiau, 2010). The COSO framework comprises five elements, namely that of *control environment* (holistic attitude of management towards internal control), *risk management* (identification, evaluation and treatment of risks), *internal control activities* (preventive and/or detective actions to mitigate risks), *information and communication* (sharing of information to empower stakeholders to help attain business objectives), and *monitoring* (evaluating the adequacy and/or effectiveness of the entire internal control system) (COSO, 2012; Martin et al., 2014).

In a South African dispensation, approximately 90% of all business entities are regarded as SMMEs (Mouloungui, 2012); responsible for adding substantial socio-economic value[2] to the country. Albeit the aforementioned, South African SMMEs have one of the worst sustainability rates[3] in the world as approximately 70% of these business entities fail after being in existence for only four years (Cant & Ligthelm, 2002; Mutezo, 2013; Wiese, 2014; SAICA, 2015; Van Der Walt et al., 2016). A probable reason for the latter dispensation is that most of these business entities make use of customised internal control systems which only partially relate to the COSO Integrated Internal Control Framework. Unsurprisingly, these customised internal control systems have been found to be inadequate and/or ineffective in relation to the mitigation of risks (Siwangaza, 2013; Bruwer, 2016). This view is supported by previous studies (Byington & Christensen, 2005; Christ et al., 2012) where it was found that although customised internal control systems can add value to business entities from a corporate governance point of view at most, it does not necessarily add as much value in relation to the mitigation of risks.

[1] Other internal control frameworks include, *inter alia*, the CoCo Framework (1995) and the CoBIT Framework (1996, 2005, and 2012).
[2] These business entities contribute at least 50% to the South African Gross Domestic Product, while providing employment opportunities to at least 60% of the national workforce (Naidoo & Urban, 2010; Swart, 2011; Koens & Thomas, 2015).
[3] Since the overall existence of South African SMMEs are largely dependent on their achievement of financial objectives (Jeon et al., 2010), for this study, the SMME sustainability is synonymous with their "financial sustainability".

A major part of any system of internal control is that of internal control activities[4] (Heise et al., 2013). These activities can be manual and/or automatic in nature, and should assist management with the prevention and/or detection of risks, with the main intent to provide reasonable assurance surrounding the attainment of a business entity's objectives in the foreseeable future (Agebejule & Jokipii, 2009). Notwithstanding the aforementioned, a recent study (Bruwer, 2016) found that internal control activities had only an average presence in South African SMMEs. Two probable reasons for this phenomenon include, *inter alia*, that these business entities have limited financial resources at their disposal to implement sound internal control activities (Janse Van Vuuren, 2011; Jere et al., 2015), and management often views internal control activities as too much effort to implement and/or enhance due to non-guaranteed returns on such investments (Campbell & Hartcher, 2003).

One of the five categories of internal control activities which can be used to economically mitigate risks is that of independent checks – used mostly for quality control purposes (Messier & Austen, 2000; O'Leary et al., 2006; Jorion, 2012). Independent checks pertain to autonomous scrutiny of applicable phenomena (e.g. employees, goods and/or services, cash, accounts receivable, accounts payable, etc.) which need to adhere to a set standard(s), as they may directly influence the attainment of a business entity's strategic objectives, operational objectives, reporting objectives and/or compliance objectives (Kamaruddin & Ramli, 2015). Albeit the latter, previous studies (Siwangaza, 2013; Bruwer, 2016) found that internal control activities have a below average presence in South African SMMEs, of which independent checks (a component of the latter) only has an average presence. Probable reasons for this include that SMME management do not only have to wear many hats[5], but should also take on array of managerial responsibilities and non-managerial responsibilities at any given time (Luiz & Gaspari, 2007; Katsioloudes & Jabeen, 2013).

Using the above as basis, it becomes apparent that customised internal control systems in South African SMMEs may not necessarily have a positive influence on their overall sustainability. This is especially the case since internal control activities have only an average presence in South African SMMEs, while their adequacy and/or effectiveness to manage risks are questionable. Notwithstanding the aforementioned, it is highly probable that the independent checks that are implemented in South African SMMEs may have a positive influence over their overall sustainability, especially since these control activities are the most economical to implement and/or maintain. Therefore, this research study focused on testing the relationship which existed between implemented independent checks and the perceived financial sustainability of South African SMMEs. The study aimed to provide insight to SMME management and policymakers surrounding the potential and/or actual value which independent checks have in relation to the financial sustainability of South African SMMEs.

For the remainder of this paper, relevant discussion takes place under the following headings: 1) conceptual frameworks and development of hypothesis, 2) research design,

[4] Internal control activities can be demarcated into five categories, namely: 1) adequate source document usage and design, 2) proper authorisation activities, 3) safeguarding of assets, 4) segregation of duties, and 5) independent checks (COSO, 2012; McNally, 2013).
[5] South African SMME management has a customised managerial conduct (Bruwer & Coetzee, 2016).

methodology and methods, 3) results and discussion, 4) conclusion, and 5) avenues for further research.

CONCEPTUAL FRAMEWORKS AND DEVELOPMENT OF HYPOTHESIS

In this research study, emphasis was placed on one dependent variable, namely “financial sustainability”, and 12 independent variables relating to “independent checks”. For the remainder of this section, these variables are first conceptualised and then discussed separately.

Financial sustainability

In a business dispensation, the attainment of financial objectives (financial sustainability) pertains to a business entity’s achievement of a favourable financial performance[6] and/or favourable financial position[7] which, in turn, should allow for it to remain in existence (operation) for the foreseeable future (Lebacq et al., 2013). Without the attainment of financial sustainability, it is impossible for any business entity to remain in operation for the foreseeable future.

Globally, the financial sustainability of SMMEs tends to be better in developed countries than in developing countries, particularly since developed countries’ economic landscapes[8] are more conducive for these business entities to operate in (Monk, 2000). For example, in Australia 23% of SMMEs fail after being in existence for five years, in Canada 48% of SMMEs fail after being in existence for five years, while in Brazil 43% of SMMEs fail after being in existence for three years (Ahmad & Seet, 2009; Oduyoye et al., 2013; Rao & Omnamasivayya, 2013). When focus is shifted to South African SMMEs however, 70% fail after being in existence for only four years (Tustin, 2015).

Notwithstanding the fact that South African SMMEs have one of the worst sustainability rates in the world (Houghton, 2016) the South African economic landscape is often described as “toxic” (Hlahla, 2013). Otherwise stated, the South African economic landscape is unconducive for these business entities to operate in and/or to become sustainable in as it serves as a breeding ground for risks to cultivate in (Adam et al., 2005; Kabiawu, 2013; SAICA, 2015). For this reason, the mitigation of risks in these business entities is of paramount importance.

Independent checks

Due to the rapid advancement in technology, many business entities around the globe have been reported to mitigate risks reactively as opposed to proactively, mainly as more business transactions are taking place via technology (Sahd & Rudman, 2016). One manner in which this can be done is through the implementation of internal control activities – those activities which exist across all hierarchical levels in a business entity, which either prevent or detect risks, with the main intent to provide reasonable assurance regarding the

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[6] Financial performance has to do with a business entity’s ability to make an income, in the shortest amount of time to, in turn, make a profit (Sowden-Service, 2006).
[7] Financial position has to do with a business entity’s ability to have more assets when compared to its liabilities which, in turn, can generate income which is greater than expenses (Sowden-Service, 2006).
[8] The economic landscape refers to the overall well-being of an economy (Guilhoto et al., 2002).

attainment of business objectives in the foreseeable future (Frazer, 2012; Halonen, 2014). Regardless of the aforementioned, not all control activities are proactive in nature. Internal control activities are generally demarcated into five categories (see Footnote 4). For this study however, emphasis was placed on the category of *independent checks.*

Independent checks have to do with the meticulous inspection of assets (inventory, cash, trade receivables), employees and liabilities (overdrafts, trade payables) in the sense that they conform to relevant compliance procedures which, in turn, should assist a business entity to achieve its relevant objectives in the foreseeable future (Chorafas, 2001; Kamaruddin & Ramli, 2015). According to previous research studies (Kubitscheck, 2000; Marrow et al., 2003; Jorion, 2012), independent checks are more robust, more adaptable (less static) and more cost effective to deploy than other internal control activity. This is specifically the case since most independent checks are physically performed by human beings who, in turn, should be adaptable to change (Van der Schaaf & Kanse, 2007).

Therefore, the inference can be made that independent checks, if correctly performed, should have a positive influence on the overall sustainability of a business entity, leading to the formulation of the following hypothesis:

> H_1: There exists a positive statistically significant relationship between implemented independent checks and the perceived financial sustainability of South African SMMEs.

RESEARCH DESIGN

For the remainder of this section, discussion takes place under the following sub-headings: 1) data and participants, and 2) model specifications.

Data and participants

Survey research was conducted and primary quantitative data were collected from 119 members of management in South African SMMEs (owners and/or managers) through the deployment of a questionnaire. The questionnaire comprised mostly of 5-point Likert scale questions (1 = “strongly disagree”, 2 = “disagree”, 3 = “neither agree nor disagree”, 4 = “agree”, 5 = “strongly agree”), with some questions taking on the form of multiple choice questions and ratio questions. The targeted population was 150 members of management who had to have decision making power in their respective SMMEs. The sample was chosen based on applicable delineation criteria, namely that all SMMEs had to be non-franchised, fast moving consumer goods[9] (FMCG) SMMEs, which employed less than 50 full-time employees, while also operating in the Cape Metropole.

Stemming from the descriptive statistics, the following demographical characteristics were evident for respondents:

[9] Fast moving consumer goods industry is characterised by high levels of competition, which forms part of the wholesale and retail industry, where necessity and/or non-necessity products are sold, on which marginal mark-ups are placed (Housgard et al., 2010; Ashraf, 2014; South African Reserve Bank, 2011).

- Position in SMMEs: 40.34% were owners; 32.77% were managers; 26.89% were owner-managers.
- Nationality: 96.64% were South African; 3.36% were non-South African.
- Managerial experience: 48.74% had less than 6 years' managerial experience; 51.26% had at least 6 years' managerial experience.
- Highest qualification: 18.49% had a qualification below Grade 12; 48.74% had a Grade 12 qualification; 32.77% had a tertiary qualification.

In relation to the sampled SMMEs which respondents were responsible for managing, the following demographical characteristics were evident based on descriptive statistics:

- Non-franchised: 100% were non-franchised.
- Type of business: 77.30% were sole traders; 9.2% were partnerships; 10.1% were close corporations; 3.4% were private companies.
- Modus operandi: 80.67% operated on a "cash only" basis; 19.33% operated on a "cash and credit" basis.
- Number of outlets: 83.19% had one outlet; 16.81% had more than one outlet.
- FMCG type: 43.70% were retailers/wholesalers; 21.85% were restaurants/caterers; 31.93% were convenience stores/cafés; 2.52% were pharmacies.
- Employees employed: 87.40% employed 10 or less full-time employees; 12.6% employed between 11 and 50 full-time employees.
- Existence: 24.37% existed for less than four years; 75.63% existed for at least four years.

The questionnaire measured both the dependent variable and independent variable through a total of 15 items. In order to reduce the number of items for measurement, principle axis factoring was used.

For the dependent variable, a total of four items were reduced to one factor, namely "financial sustainability". The tested reliability of this factor was calculated at a Cronbach's Alpha of 0.722[10] with a KMO test score of 0.749. In turn, for the independent variables, a total of 11 items were used to ascertain the independent checks which SMMEs made use of. Through means of principle axis factoring, these 11 items were reduced to three factors and two items. A summary of the reliability tests, along with relevant KMO test scores are provided in Table 1.

Table 1: Summary of reliability tests on items measuring internal control activities

Factor tested	No of items tested	Cronbach's Alpha	KMO test score
Independent checks on staff *	3	0.628	0.596[a]
Independent checks on inventory	2	0.453	0.500
Independent checks on cash*	3	0.758	0.678
Reconciliations*	3	0.806	0.700

*Suitable for factoring

[10] A Cronbach's Alpha score of 0.600 or higher is regarded as appropriate; a calculated KMO test score of 0.600 or higher is regarded as appropriate to factor items (Field, 2009; Cohen & Sayag, 2010; Hair et al., 2010).

[a] the KMO test score for the tested factor was rounded to 0.600

Since the two items for *independent checks on inventory* had a weak Cronbach's Alpha and KMO test score, it was decided to keep these two items separately (see Table 2). Hence for this study, four factors and two items were identified for all variables. For all four factors, relevant average-scores were calculated for their respective items which, in turn, were used for linear regression analyses.

Model specification

Stemming from the factor analysis conducted on collected data, a linear regression model was developed in order to analyse the relationship which exist between the internal control activities evident in sampled SMMEs and their perceived financial sustainability. The following model[11] was used:

$$FINSUS = \alpha + \beta_1 INDEPSTAFF + \beta_2 QUALCINV + \beta_3 INVCT + \beta_4 INDEPCASH + \beta_5 RECON + \varepsilon.$$

All variables that were applied in the model above, including their measurements are described in Table 2.

Table 2: Description and measurement of variables

Variable	Description	Measurement
Dependent		
FINSUS	Financial sustainability (factor)	It measures the perceived financial performance and financial position of SMMEs. It assumes a value between 1 and 5, where 1 indicates "strongly disagree" and 5 indicates "strongly agree".
Independent		
INDEPSTAFF	Independent checks are performed on staff (factor)	It shows whether employees were independently checked by management. It assumes a value between 1 and 5, where 1 indicates "strongly disagree" and 5 indicates "strongly agree".
QUALCINV	Quality checks are performed on inventory received (item)	It shows whether quality checks were performed by management on inventory received. It assumes a value between 1 and 5, where 1 indicates "strongly disagree" and 5 indicates "strongly agree".
INVCT	Inventory is periodically counted (item)	It shows whether inventory was counted periodically by management. It assumes a value between 1 and 5, where 1 indicates "strongly disagree" and 5 indicates "strongly agree".

[11] The symbols "α" and "ε" represent the constant(s) and error(s) in each model.

Variable	Description	Measurement
INDEPCASH	Independent checks are performed on cash (factor)	It shows whether independent checks were performed by management on cash. It assumes a value between 1 and 5, where 1 indicates “strongly disagree” and 5 indicates “strongly agree”.
RECON	Periodic reconciliations (factor)	It shows whether relevant reconciliations (bank, accounts receivable and/or accounts payable) were performed by management on a periodic basis. It assumes a value between 1 and 5, where 1 indicates “strongly disagree” and 5 indicates “strongly agree”.

RESULTS AND DISCUSSION

In order to determine statistically significant relationships between the dependent variable and independent variables, relevant linear analyses were performed. A summary of the results are shown in Table 4, followed by a brief interpretation thereof.

Table 4: Summary of linear regression analyses

		FINSUS
Independent variables	R^2	0.050
	F	1.188
	Sig.	0.319
INDEPSTAFF	Std β	0.060
	Sig.	0.544
QUALCGO	Std β	-0.092
	Sig.	0.356
INVCNT	Std β	0.033
	Sig.	0.739
INDEPCASH	Std β	0.199
	Sig.	0.319
RECON	Std β	0.106
	Sig.	0.357

The R^2 was calculated at 5% which serves as an indication of a very weak explanation of the variances among relevant variables. This translates to the fact that there existed very few, if any, statistically significant relationships where independent variables could predict the dependent variable. Though this phenomena is concerning, it does however shed light on the true value of independent checks on the financial sustainability of sampled South African SMMEs.

When placing emphasis on the results in Table 4, of the five tested relationships, one tested negative while the remaining four tested positive. Albeit the latter, and as previously stated, all five tested relationships were not statistically significant at the 1% level, 5% level or the 10% level (as supported by a very weak R^2). In layperson’s terms, although four out of the five relationships were positive, none of them were statistically significant – meaning that no statistically significant predictions could be made in relation to the latter phenomena. These results allow for the rejection of H_1.

Notwithstanding the above, clear tangent planes emerge that the independent checks may have been implemented by sampled South African SMMEs were mostly implemented as “nice to haves” as opposed to “must haves”. This observation is supported by Bruwer (2016) where it was found that South African SMMEs make use of internal controls activities not necessarily because it help provides reasonable assurance surrounding the attainment of business objectives in the foreseeable future, but rather because it is regarded as popular.

CONCLUSION

Previous studies show that South African SMMEs face an array of risks which are predominantly attributable to the economic environment in which they operate. These risks can be mitigated through the implementation of sound system of internal control however popular literature suggests that these business entities make use of customised internal control systems which are not adequate and/or effective in providing reasonable assurance surrounding the attainment of business objectives in the foreseeable future. Although a system of internal control comprises five elements, this study placed focus on understanding relationship which exists between independent checks (as a component of internal control activities) and the financial sustainability of South African SMMEs.

Stemming from the research conducted the results show that although there were mostly positive associations between the independent checks implemented by South African SMMEs, none of the tested relationships were statistically significant in nature. The latter means that the independent checks in South African SMMEs do not add significant value to the attainment of these business entities’ financial sustainability, despite the fact that these control initiatives are more robust, more adaptable and more cost effective to deploy than other internal control activity.

The above is quite concerning when taking into account that these business entities predominantly make use of independent checks in order to mitigate risks to achieve financial sustainability however these independent checks may probably only be deployed due to their popularity.

AVENUES FOR FURTHER RESEARCH

Using the results of the study as basis, the following avenues for further research are suggested, among other:

- What is the relationship between *adequate document usage and design* and the financial sustainability of South African SMMEs?
- What is the relationship between *proper authorisation activities* and the financial sustainability of South African SMMEs?
- What is the relationship between *safeguarding of assets* and the financial sustainability of South African SMMEs?
- What is the relationship between *segregation of duties* and the financial sustainability of South African SMMEs?

- What is the relationship between the *control environment* and the financial sustainability of South African SMMEs?
- What is the relationship between *risk management* and the financial sustainability of South African SMMEs?
- What is the relationship between *information and communication* and the financial sustainability of South African SMMEs?
- What is the relationship between *monitoring* and the financial sustainability of South African SMMEs?

The studies above should help clarify whether the (customised) internal control systems deployed in South African SMMEs do in fact add empirical value in their attainment of financial sustainability.

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AUD007 A comparison of first and third generation sectional title legislation – an accountancy perspective

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ABSTRACT:
After being in effect since the late 1970s, first generation sectional title legislation in South Africa was recently completely overhauled into what is now commonly referred to as "third generation sectional title legislation". The original Sectional Titles Act was split into three separate statutes, namely the Sectional Titles Schemes Management Act No. 8 of 2011, the Sectional Titles Amendment Act No. 33 of 2013 and the Community Schemes Ombud Service Act No. 9 of 2011, with various Regulations detailing how the different acts should be applied in practice. Even though some of the changes effected by the new legislation is simply technical adjustments and replications of the original first generation legislation, the new acts introduce a number of significant changes that will have an effect on accountancy, financial management and risk aspects of sectional title schemes in future. No academic research has been undertaken on a comparison of first and third generation sectional title legislation in South Africa from an accountancy perspective as yet. This paper, therefore, contributes to the current body of literature in an attempt to start addressing this shortcoming. The aim of this paper is to discuss the findings of a literature review comparing first and third generation sectional title legislation, with specific reference to accountancy-related aspects. Practical recommendations will be made on how role players in the sectional title industry can prepare for the new legislative aspects specifically regarding accountancy aspects, and further research opportunities in this regard will be discussed.

Key words: accountancy, body corporate, sectional title, third generation sectional title legislation

INTRODUCTION

The research results contained in this paper form part of the findings of two extensive studies (Steenkamp 2017; Lubbe 2013) that were done on the sectional title industry in South Africa from an accounting and auditing perspective, performed in fulfilment of the degree Philosophiae Doctor in Auditing. This paper will commence by giving a brief overview of the South African sectional title property industry. Thereafter, the problem statement and aim of the paper will be discussed, together with the research methodology. A discussion of the literature review will then be done and the paper will be concluded with possible recommendations and a concluding section.

A brief overview of the sectional title industry in South Africa

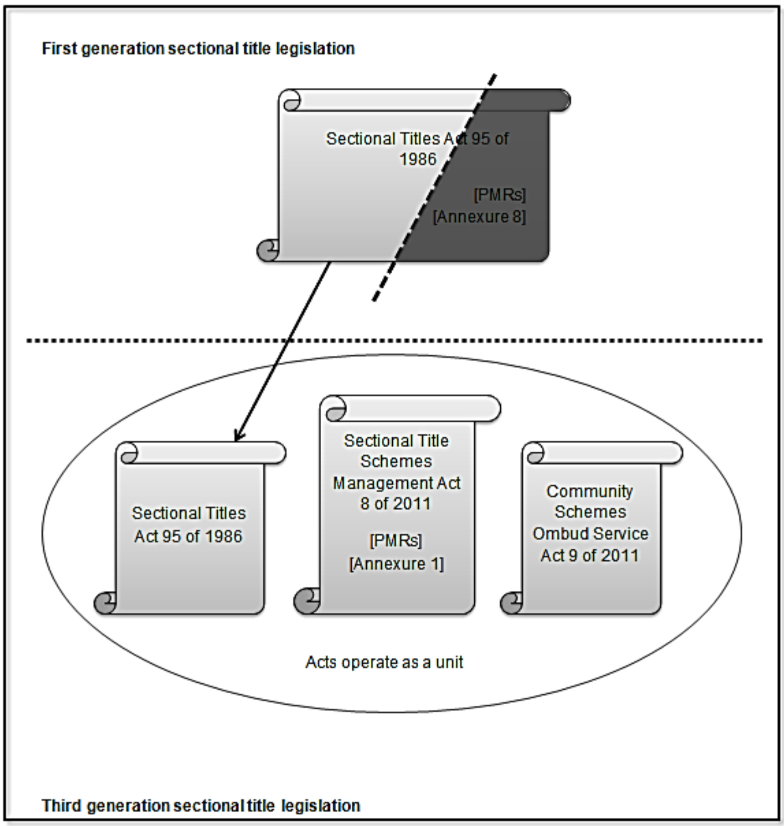
In 1971, the Sectional Titles Act ushered in a new era in home-ownership in South Africa. The Sectional Titles Act was assented to on 19 June 1971 and promulgated on 30 June 1971. The Act was finally proclaimed to come into operation almost two years later on 30 March 1973. For the first time in the history of South African law, home owners were able to purchase a section of a building, such as an apartment, with full ownership rights on that section (Van der Merwe 2014, pp.1–9; Woudberg 1999, p.3; Nel 1999, p.1; Shrand 1972, p.1; Paddock 2008, pp.1–3).

During 2010, it was estimated that the South African sectional title industry consists of almost 60 000 schemes (also known as complexes), comprising over 800 000 individual units (Van der Merwe 2014, p.1–30(17); Editorial 2010, p.1; Muller 2009, p.42). (See also Editorial (2008, p.2).) According a recent general household survey issued by Statistics South Africa, there are currently around 714 000 households living in flats or apartments and roughly a further 233 000 households living in town house complexes, adding up to approximately 947 000 households living in sectional title schemes (Statistics South Africa 2015, p.122;125).

The Sectional Titles Amendment Act No. 11 of 2010 contained the final amendments to the 1986 Sectional Titles Act before the split thereof into three separate statutes (Van der Merwe 2014, pp.1–35; Van der Merwe 2012, pp.611–612). Maree (2015e, p.1) explains that the original 1986 Act contained a number of problems regarding the examination, approval and filing of scheme rules and dispute resolution. Durham (2015, p.1) and Van der Merwe (2012, p.611) refer to the three new pieces of legislation as “third generation sectional titles legislation”. The Sectional Titles Schemes Management Act No. 8 of 2011 (also referred to as the STSMA), incorporates all governance and management provisions regarding sectional titles. These sections were taken out of the 1986 Act and amended and adapted to create the STSMA. The remainder of the Sectional Titles Act No. 95 of 1986 (STA) was amended by the Sectional Titles Amendment Act No. 33 of 2013. The 1986 Act now contains only technical registrations and survey provisions. The Community Schemes Ombud Service Act No. 9 of 2011 (also referred to as the CSOSA) henceforth provides a dispute resolution mechanism for sectional title and other community schemes. As mentioned in section 1.1, in October 2015 the Department of Human Settlements published in the Government Gazette draft regulations that flesh out how the STSMA and the CSOSA will be applied. The amended management rules as per the old Annexure 8 of the STA were extensively revised and published for comment in the Regulations to the STSMA as Annexure 1 during October 2015 (Maree 2015a, p.1; Maree 2015f, p.1). The final revised Regulations were published on 7 October 2016.

Paddock (2011, p.1) explains that some of the changes effected by the new legislation are simply 'technical adjustments', such as updated descriptions, removing superfluous provisions and adding cross-references. Van der Merwe (2011, p.134; 2014, pp.1–43), Maree (2015c, p.1) and Bechard (2015a, p.1) concur that the three new sets of legislation have gone a long way to tidy up loose ends and clarify points of uncertainty. However, the authors point out that there are still numerous shortcomings in the legislation and that many of the new amendments are ambiguous. According to Van der Merwe (2013, p.707) some of the most interesting and controversial changes were the amendments to Annexure 8 of the Regulations, better known as the prescribed management rules (PMR) of a sectional titles scheme. Bechard (2015a, p.1) points out that many of the provisions of the STSMA replicate those of the Sectional Titles Act. However, the STSMA does introduce some significant changes. Furthermore, in October 2015 the Department of Human Settlements published in the Government Gazette draft regulations that flesh out how the STSMA and the CSOSA will be applied. The amended management rules as per the old Annexure 8 of the STA were extensively revised and published for comment in the Regulations to the STSMA as Annexure 1 during October 2015 (Maree 2015a, p.1; Maree 2015f, p.1). The final revised Regulations were published on 7 October 2016. Figure 1 below illustrates the changes to the legislation from first to third generation sectional title legislation.

Figure 1: First generation versus third generation sectional title legislation



(Own diagram)

PROBLEM STATEMENT AND AIM OF THE PAPER

From the aforementioned, it follows that almost a million households in South Africa live in sectional title property schemes. Also, the industry has recently seen a complete legislative overhaul, which will have an impact on all sectional title schemes in South Africa. Very little academic research has so far been done on sectional titles in South Africa, specifically from an accountancy perspective. Further, no research studies have yet been undertaken comparing first generation and the new third generation sectional title legislation on bodies corporate from an accounting and auditing perspective. It is, therefore, clear that research in this area is imperative, and should be performed to start addressing the shortfall of academic research on a very topical phenomenon found in South Africa specifically. The paper aims to present the findings of a literature review comparing first generation the new third generation sectional title legislation. Specific reference will be made to accountancy-related aspects. The way forward for bodies corporate will be discussed, focusing on practical recommendations regarding the implementation of the new legislative aspects. Further research opportunities in this regard will be also be discussed.

RESEARCH METHODOLOGY

An extensive literature review emphasizes the importance of the research problem as the foundation on which to build an empirical study. It can either be a study on its own (i.e. a literature study) or the first phase of an empirical study. Mouton (2001, p. 86) views the literature review as an essential component of any study and states that every research project should begin with a review of existing literature available. (See also De Vos, Strydom, Fouché & Delport (2002, p. 67).) Pellissier (2007, p. 55) and Mouton (2001, p. 87) state that the literature review entails deeply reviewing the current status of the research in the traditional field you are planning to use, presenting the current state of major ideas right up to, but not including, the researcher's own study. A thorough background is also considered to be of importance, especially if the research spans two or more traditional fields. (See also Anderson & Poole (2009, p. 21).) Henning, Van Rensburg and Smit (2004, p. 27) is of the opinion that the main purpose of a literature review is to synthesise the available literature and to engage critically with the literature. It is also used to identify a niche to be occupied by the research. Coldwell & Herbst (2004, p. 31) view the purpose of a literature review as conveying what knowledge and ideas have been established on a topic together with the strengths and weaknesses thereof. (See also Creswell et al. (2014, p. 26) and Olivier (Olivier, 2009, pp. 41–44).) Coldwell & Herbst (2004, pp. 35–35), Welman, Kruger & Mitchell (2005, pp. 39–40), and Mouton (1996, pp. 119–120) provide criteria for a good literature review. It is agreed that the literature review should cover a wide range of resources; the sources should be current and relevant; and the sources should fall within the parameters of the study.

The literature study in this paper commenced with detailed searches by research specialists at the academic libraries at the University of the Free State and Central University of Technology, Free State as well as the Archive for Contemporary Affairs at the University of the Free State. In-depth searches were also done at the libraries of local auditing and accounting professional bodies such as the South African Institute of Chartered Accountants (SAICA) and the South African Institute of Professional Accountants (SAIPA), as well as international professional bodies such as the American Institute of Certified Public Accountants (AICPA), and the Independent Regulatory Board for Auditors (IRBA) and the Financial Accounting Standards Board (FASB). There were also a vast number of resources in the libraries of the so-called 'big 4' audit firms and large legal firms and the Institute of Directors in Southern Africa (IoD) which were utilised in the process. These searches identified various possible literature sources, including books, articles, theses, dissertations, internet sources and professional and institutional publications.

The literature review in this paper is discursive prose which proceeds to a conclusion by reason and argument, and not merely summarising and listing various sources. The literature review covers the main themes of the research, namely comparing first generation and third generation sectional title legislation from an accountancy perspective, making practical recommendations regarding the implementation of the new legislative aspects and identifying research opportunities in this regard.

LITERATURE REVIEW

The literature review addresses the accountancy-related aspects as identified in the first and third generation sectional title legislation. The aspects being addressed include functions of bodies corporate, funds and reserves, contributions and charges, bank accounts, the onus of financial management, financial year ends, books of account, annual financial statements, small schemes, accounting officers, and various aspects related to sectional title audits.

Functions of bodies corporate

Van der Merwe (2014, pp.14–5) writes that the effective management of a sectional title scheme is vitally important, especially to unit owners and the financial institutions with an interest in the scheme. Therefore, as Pienaar (2010, p.150) points out, the functions of the body corporate as prescribed by the Acts (STA, STSMA and CSOSA) are not voluntary, but compulsory, as indicated by the wording in the new Annexure 1 of the STSMA "*the body corporate must…*". In the original STA, before amendment, the wording was "*the body corporate shall…*". Both the word 'shall' and the word 'must' mean 'has a duty to', but the use of the word 'must' is the clearest way to indicate that the functions are mandatory. The change in wording can be seen as an improvement in the legislation. Failure to perform the functions as prescribed constitutes a breach of the Act (Van der Merwe 2014, pp.14–14). The most important functions of the body corporate are set out in sections 2 and 3 of the STSMA (previously section 37 of the STA), with additional management and conduct rules contained in Annexures 1 and 2 of the STSMA. The main functions can be broadly categorised as the establishment of funds, levying contributions, the operating of accounts, procuring insurance, and maintaining the common property (Van der Merwe 2014, pp.14-15-14–16; Pienaar 2010, pp.152–162). These functions will be discussed below.

Funds and reserves

The term 'fund' is referred to several times in the STSMA and STSMA Regulations. However, despite the numerous references to the term, as well as the fact that the STSMA now specifically requires two different funds to be maintained, the term 'fund' is not defined in the definitions section of either the STSMA or the STSMA Regulations. Moreover, regarding accounting, International Financial Reporting Standards (IFRS) also has no distinct definition of the term 'fund'. Neither the *Conceptual Framework for Financial Reporting*, nor IAS 1 *Presentation of Financial Statements* make mention of or define the term 'fund' (Service 2015, pp.38–101; Koppeschaar et al. 2014, pp.7–54). IFRS 9 *Financial*

Instruments is the only standard which makes mention of the term ‘funds’, stating items such as mutual funds and investment funds. These items are, however, not applicable to the sectional title industry.

PwC (2014, p.1) points out that according to International Accounting Standard (IAS) 1, reserves, together with equity share capital and other own equity instruments, make up the shareholders’ equity section of an entity’s balance sheet (currently called the statement of financial position). It is added that the term ‘reserves’ are not specifically defined in IFRS and are frequently referred to as components of equity. Reserves may include reserves such as fair value reserves, cash flow hedge reserves, asset revaluation reserve and foreign currency translation reserve and other statutory reserves. Most reserves result from accounting requirements to reflect certain measurement changes in equity rather than profit or loss (currently the statement of comprehensive income). Of all the types of reserves mentioned, statutory reserves are probably the most relevant to the sectional titles act requirements. Statutory reserves are defined as reserves that are created based on the requirements of the law or the statute under which the company is incorporated (Mackenzie et al. 2014, p.85; Service 2015, p.78). For instance, many corporate statutes in Middle Eastern countries require that companies set aside 10% of their net income for the year as a ‘statutory reserve’, with such appropriations to continue until the balance in this reserve account equals 50% of the company's equity capital. The intent is to provide an extra ‘cushion’ of protection to creditors, such that even significant losses incurred in later periods will not reduce the entity's actual net worth below zero, which would, if it occurred, threaten creditors’ ability for repayment of liabilities (Editorial 2013, p.1). IAS 1 requires that movements in reserves during the reporting period be disclosed, along with the nature and purpose of each reserve presented within owners’ equity. Since bodies corporate are now required by law (the STSMA and STSMA Regulations) to maintain a reserve fund, these funds can be seen as statutory reserves in terms of IFRS. The STSMA differentiates between two types of funds, namely the administrative fund and the reserve fund. The two funds will be discussed below.

Administrative fund

Section 3(1)(a) of the STSMA and rule 24(1) of the STSMA Regulations state that a body corporate must establish and maintain an administrative fund, reasonably sufficient for covering the estimated annual operating costs of the body corporate. These operating costs include items such as repair and maintenance of the common property, payment of municipal charges and insurance premiums (See also Van der Merwe (2014, pp.14–15) and Pienaar (2010, pp.155–156).) In other words, the reserve fund should be maintained according to the body corporate budget, and enough money should be contributed (through levies) to cover the operations of the body corporate for the ensuing year. Rule 24(1) should be read together with rule 9(c), which deals with the duties of the trustees; rule 17(6)(j)(iv), which deals with matters to be discussed at the AGM; rule 25, which deals with contributions and charges; as well as rule 26(1)(e), which deals with budgets. Rule 24(4) further stipulates that money may be paid out of the administrative fund in accordance with trustee resolutions and the approved budget for the administrative fund.

The new rule 24 in the STSMA Regulations is similar to the old prescribed management rule (PMR) 37(1)(a) which stated that the body corporate should establish a fund for administrative expenses sufficient for the repair, upkeep, control, management and administration of the common property (including reasonable provision for future maintenance and repairs), for the payment of rates and taxes and other local authority charges for the supply of electric current, gas, water, fuel and sanitary and other services to the building or buildings and land, and any premiums of insurance, and for the discharge of any duty or fulfilment of any other obligation of the body corporate. There has, therefore, been no significant change in the legislation regarding administrative funds.

Reserve fund

Probably the most significant and most controversial change brought about by the third generation sectional title legislation is the requirement by section 3(1)(b) of the STSMA to establish and maintain a reserve fund. Section 3(1)(b) of the STSMA requires the fund to be reasonably sufficient to cover the cost of future maintenance and repair of common property, but not less than such amounts as may be prescribed by the Minister. The reasoning behind this change in legislation was to force bodies corporate to move away from the practice of charging special levies and to assist bodies corporate to make proper provision for future maintenance and repair projects (Maree 2015d, p.1; Maree 2015a, p.1). It is widely believed that bodies corporate that do not currently have a reserve fund in place will be granted a period of two years from enactment of the new STSMA Regulations (Prince 2015a, p.1; Prince 2015b, p.1).

Rule 2 of the STSMA Regulations prescribes a formula for calculating the minimum amount of the annual contribution to the reserve fund for a financial year being budgeted for. The formula is based on the amount in the reserve fund at the end of a financial year and the total contributions collected in that year. In simple terms, the formula works as follows:

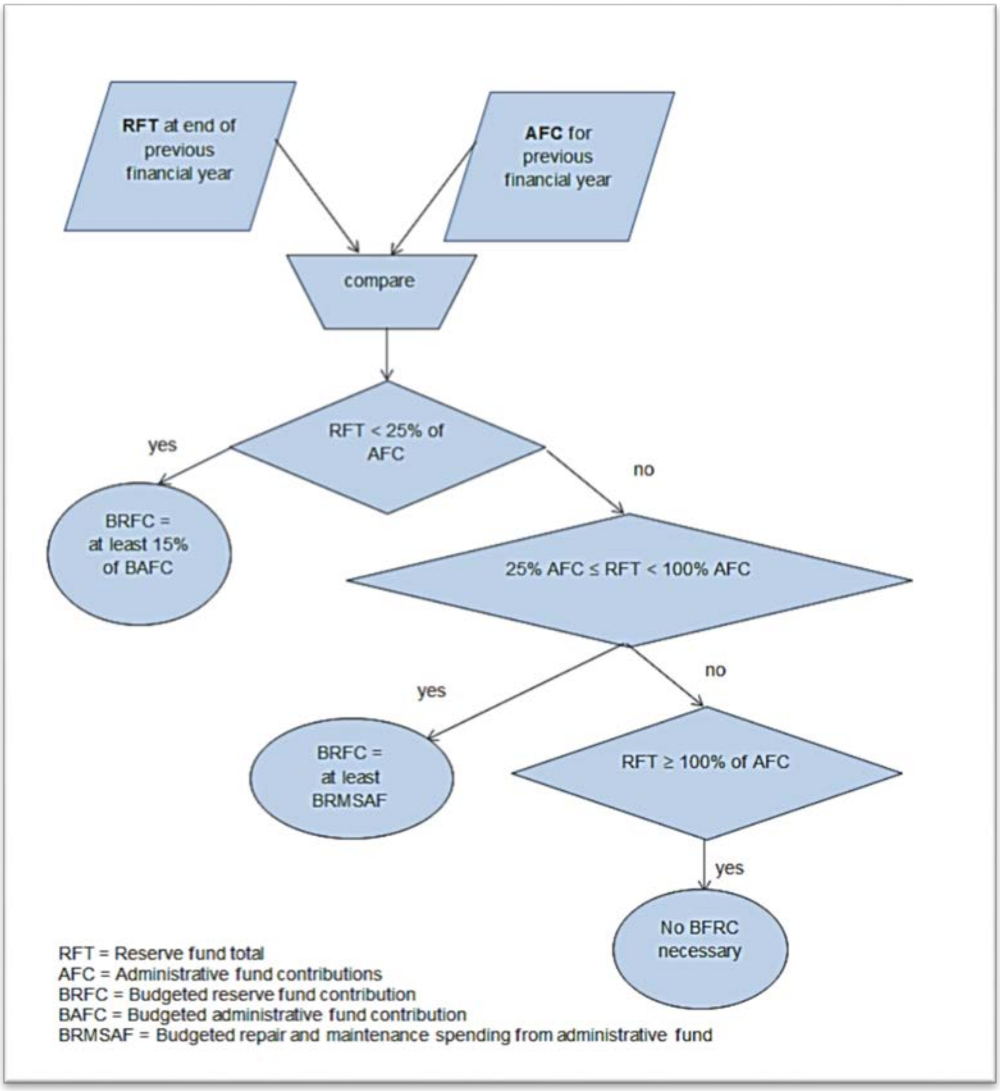
- If, at the end of the financial year, the money in the reserve fund is less than 25% of the total contributions to the administrative fund for that year, then, in the following financial year the minimum allocation to the reserve must be 15% of the total contributions to the administrative fund.

- If, at the end of the financial year, the money in the reserve fund is equal to, or more than 100% of the total contributions to the administrative fund for that year, the body corporate does not have to top up its reserve fund.

- If, at the end of the financial year, the money in the reserve fund is more than 25% but less than 100% of the total contributions to the administrative fund for that year, the contribution to the reserve fund must at least equal the amount the body corporate budgeted to be spent from the administrative fund on repairs and maintenance in the following year.

Figure 2 below illustrates on a basic level how a body corporate should go about determining its contribution to the reserve fund for a financial year being budgeted for.

Figure 2: Calculation of budgeted reserve fund contribution



(Own diagram)

Bechard (2015c, p.1) emphasises that although the original Sectional Titles Act required all bodies corporate to take account of future expenditure when budgeting, the first generation legislation did not prescribe a minimum amount that must be set aside specifically to pay for future maintenance and repairs. In order to keep levies low, many schemes made no or little provision in their annual budgets for future expenditure (J. Paddock 2014, p.1). Instead, schemes raised special levies whenever they were faced with a major expense. Sectional title legal specialist Maree (2015d, p.1; 2015a, p.1) is of the opinion that provision for sectional title reserve funds are crucial and even goes as far as stating that "*special levies is a symptom of poor management*". Even though reactions to the prescribed reserve fund contributions were largely positive, Prince (2015a, p.1; 2015b, p.1) warns that numerous sectional title specialists are concerned that many sectional title owners will not be able to contribute to the reserve funds of their schemes. In the study done by Lubbe (2013, p.22;193;219;226), as well as the study by Steenkamp (2017, pp.344–346) it was pointed out that one of the biggest problems for bodies corporate is the approval of budgets. Many trustee chairpersons reported that increases in budgets and the resulting levies are always met with negativity. (See also Steenkamp & Lubbe (2015b, p.568).) Prince (2015a, p.1; 2015b, p.1) states that in certain lower income sectional title schemes, the current owners can hardly afford to pay their regular levies; hence, the concern over the affordability of an additional 25% contribution spread only over a two year period. It is argued that due to the new regulation, it may become increasingly difficult for the lower to middle income group to gain entry into the sectional title market.

STSMA Regulation rule 24(2) stipulates that a body corporate's reserve fund must be used specifically for the implementation of the maintenance, repair and replacement plan of the body corporate. According to rule 24(5), money may be paid out of the body corporate's reserve fund at any time in accordance with trustee resolutions and the aforementioned approved maintenance, repair and replacement plan. Money may also be paid out of the reserve fund if the trustees resolve that such a payment is necessary for the purpose of an urgent maintenance, repair or replacement expense. There are also a number of sub-rules set out in rule 24(5)(b)(i) to 5(b)(iv) setting out the purposes and circumstances that constitute 'urgency'. All urgent payments made under sub-rule 5(b) from the body corporate reserve fund should fall within the limits and restrictions imposed by the body corporate members and must not exceed the amount necessary for the purpose for which it is expended.

The STSMA Regulation rule 26(5) deals with the audit of the financial statements of bodies corporate. Sub-section (c) brings about a significant change to the scope of work to be performed by auditors. Rule 26(5)(c)(ii) places a very specific burden on the auditor, stipulating that the audit of a body corporate's financial statements "*must include opinions as to whether or not the body corporate has complied with the accounting requirements set out in rules 21, 24 and section 26, with a specific description of any failure to comply with such requirements*". Since rule 24 deals with administrative and reserve funds, the new regulations regarding reserve funds will probably have a significant impact on the scope of work performed by auditing and assurance practitioners, as well as the audit fees that will have to be charged to do the additional work.

Contributions and charges

Most sectional title residents want to stay in a well-maintained complex, but very few want to contribute financially. In many cases, levy increase discussions at annual general meetings are met with negativity (Lubbe 2013, p.193; Steenkamp & Lubbe 2015b, p.568; Steenkamp 2017, pp.306–309) and owners want to put impossible cost restrictions on budgeted expenses (Lubbe 2013, p.203; Steenkamp & Lubbe 2015a, p.555; Steenkamp 2017, pp.331–333). This leaves trustees and managing agents in a very difficult situation. As a result, reactions to changes in legislation relating to levies and contributions will vary greatly among sectional title stakeholders.

Rule 25(1) of the STSMA Regulations deals with contributions and charges, also known as levies. The rule contains a number of new prescriptions regarding notifications, specific charges, interest on arrear accounts and how non-payment should be dealt with. Maree (2015f, p.1) warns that not adhering to the prescriptions of rule 25(1) may lead to levies becoming unrecoverable.

Rule 25(1) sets out a number of requirements regarding communication to members regarding amounts payable. The rule states the body corporate must give each member written notice of the contributions and charges due and payable by that member to the body corporate. This should be done as soon as possible but not later than 14 days after the approval of the body corporate budget by a general meeting. The written notice should state that the member has an obligation to pay the specified levy. The notice should also specify the due date for each payment and, if applicable, state that interest at a rate specified in the notice will be payable on any overdue levies. Furthermore, the notice must include details of the dispute resolution process that applies in respect of disputed contributions and charges.

Rule 25(2) stipulates that if money owing is not paid on the dates specified in the above-mentioned notice, a final notice must be sent to the member. This notice must state that the member has an obligation to pay the overdue contributions and charges and any applicable interest immediately. The final notice should also state that the body corporate intends to take action to recover the amount due if the overdue contributions and charges and interest owing are not paid within 14 days after the date the final notice is given.

According to rule 25(3), members automatically become liable for contributions in respect of the next financial year in the same amounts and payable in the same instalments as were due and payable by them during the past financial year. In addition, rule 21(3)(b) stipulates that the body corporate may, on the authority of a written trustee resolution, increase the contributions due by the members by a maximum of 10% at the end of a financial year to take account of the anticipated increased liabilities of the body corporate. This allowed 10% increase will then remain effective until members receive notice of the contributions due by them for the next financial year; provided that it is done in terms of rule 25.

In the past, there was no part of the STA or any prescribed management rule that set the rate of interest the trustees could charge on such overdue amounts (G. Paddock 2014, p.1). In Annexure 8 of the original STA (before the amendments as discussed in section 3.1 above), prescribed management rule (PMR) 31(6) simply stated that the trustees shall be entitled to charge interest on arrear amounts at such rate as they may from time to time determine. The new STSMA stipulates in rule 21(3)(c) of the Regulations that the body corporate may, on the authority of a written trustee resolution, charge interest on any overdue amount payable by a member to the body corporate. However, the provision is that the interest rate must not exceed the maximum rate of interest payable per annum under the National Credit Act (2005) (Act No 34 of 2005) (also referred to as the NCA) compounded monthly in arrears.

Although interest rate limits in rule 21(3)(c) will protect debtors and other members of the body corporate in future, many sectional title experts expressed their concern regarding the new restrictions (Prince 2015a, p.1; Maree 2015f, p.1; Prince 2015b, p.1). Levy collection is currently one of the greatest problems in bodies corporate (Kloppers 2013, p.6; Prince 2015a, p.1; Lubbe 2013, p.219;226; Steenkamp 2017, pp.358–360). Bechard (2015c, p.1) highlights that, currently, about 20% of owners of sectional title property do not pay their levies on time. The only way for a body corporate to recover money from persistent non-payers is to obtain a sequestration order; a process that can take up to four years. A high interest rate generally acts as a deterrent to defaulters, and cash-strapped individuals would in all likelihood pay an account with the higher interest rate first (such as clothing accounts, short term loans, furniture accounts, bank overdrafts, etc.). It is, therefore, believed that an interest rate cap will make it more affordable for defaulting owners to remain in arrears with levies than to borrow money to pay their debt (Prince 2015b, p.1). The paying members of the body corporate will, in all likelihood, end up financing shortfalls, making it harder to maintain common property (Bechard 2015c, p.1).

From the above it is evident that the new regulations regarding the capping of interest on arrear accounts can have a serious impact on the cash flow and debt collection of bodies corporate. The aspects mentioned in this section is likely to have a significant impact on the scope of work performed by auditing and assurance practitioners, as well as the audit fees that will have to be charged to do the additional work. (See also section 3.5 below for further discussions.)

Bank accounts

According to STSMA Regulation rule 21(4)(a), the body corporate must ensure that all money received by the body corporate is deposited to the credit of an interest-bearing bank account held in the name of the body corporate. Alternatively, rule 21(4)(b) allows for money being deposited in a trust account opened in terms of either the Estate Agency Affairs Act No. 112 of 1976, or the Attorneys Act No. 53 of 1979.

A further requirement is stipulated in rule 26(1)(b) requiring the body corporate to keep separate books of account as well as separate bank accounts for its administrative and reserve funds referred to in sections 3(1)(a) and (b) of the Act. (See also Maree (2015b, p.1).)

Rule 21(3)(d) states that the body corporate *may*, on the authority of a written trustee resolution, invest any moneys in the reserve fund referred to in sections 3(1)(b) of the STSMA in a secure investment. This secure investment may be made with any institution referred to in the definition of 'financial institution' in section 1 of the Financial Services Board Act, 1990 (Act No. 97 of 1990). Lubbe (2013, pp.213–214) found that, in practice, quite a number of irregularities occur regarding body corporate bank accounts, especially where managing agents are involved.

Onus of financial management

Rule 9(1)(c) of the new Sectional Title Schemes Management Act (STSMA) Regulations stipulates that the trustees must apply the funds of the body corporate in accordance with the budgets approved by the members in the general meeting. This rule is the only one under the section dealing with general powers and duties of trustees that speaks specifically to the role of the trustees in the financial management of bodies corporate. Regarding other financial functions, the new STSMA Regulations introduces quite a significant change in wording. Previously, Prescribed Management Rules (PMR) 35, 36 and 37 of the original STA put the onus of preparing accounting records, financial statements, budgets, etc., on the trustees with the wording "*the trustees shall…*" The new STSMA Regulations rule 26 however contains the wording "*the body corporate must…*"

It can perhaps be argued that the new wording is more accurate, since preparing accounting records, financial statements, budgets, etc., ultimately remains the responsibility of the body corporate. It can also be argued that since it is already a difficult task to attract trustees

(Lubbe 2013, p.19), the ‘toned-down’ wording might just make the responsibility seem less daunting to prospective trustees.

Financial year end

Rule 21(1) in the STSMA Regulations brings about an interesting change to the legislation. The rule stipulates that the financial year of a body corporate established after the new Act came into operation must run from the first day of October of each year to the last day of September of the following year unless otherwise resolved by the body corporate in a general meeting. Prescribed Management Rule 51(2) in the original STA stipulated that unless otherwise decided at a general meeting or by the trustees, the financial year of the body corporate shall run from the first day of March in each year to the least day of February in the following year (Riddin 2011, p.1). As a result, many bodies corporate have February financial year-ends. This is usually a very busy time for accounting practitioners and, as the fiscal year-end of the government is also 28 February, bottle-neck situations sometimes occur during audit engagements (Lubbe 2013, p.122; Van der Merwe 2014, pp.14–81). Although the financial year-ends of existing bodies corporate will not be altered by the change in legislation, the fact that new bodies corporate will by default have October year-ends may bring about future relief in terms of time pressures regarding drafting of financial statements and the audit thereof.

Books of account

Regarding the requirements for the books of account, the content of the new STSMA Regulations is similar to the old STA Prescribed Management Rules. However, as mentioned earlier in this paper, the wording now puts the onus on the body corporate (previously on the trustees) to prepare accounting records, financial statements, budgets, etc. Rule 26(1)(a) explains what a body corporate should do in terms of its books of account. Bodies corporate must keep proper books of account that record all its income, expenditure, assets and liabilities (rule 26(1)(a)(i)). Furthermore, all amounts recovered from members by the body corporate or any managing agent or other service provider acting on its behalf should be disclosed (rule 26(1)(a)(ii)). The books of account should include individual accounts for each member (rule 26(1)(a)(iii)). From the information contained in the books of account, members should be able to assess the body corporate's financial situation and their financial situation in regard to the body corporate.

Rule 26(2) stipulates that on the application of any member, registered bondholder or of the managing agent, the body corporate must make all or any of the books of account and records available for inspection and copying. Furthermore, as per rule 26(3), the body corporate must ensure that all its books of account and financial records are retained for a period of six years after completion of the transactions, acts or operations to which they relate. (See also Van der Merwe (2014, pp.14–145).)

Annual financial statements

According to rule 26(c) of the STSMA Regulations, the body corporate should prepare annual financial statements for presentation at the annual general meeting. It is stipulated that the financial statements should include an analysis of:

(i) "***amounts due to** the body corporate in respect of contributions, special contributions and other charges, **classified by member** and the **periods** for which such amounts were owed…*" (Own emphasis.)

In the original STA, prescribed management rule (PMR) 37(2)(a) required the trustees to prepare an "*age analysis of debts in respect of levies, special levies and other contributions…*". (See also Van der Merwe (2014, pp.14-146-14–147). Regarding the wording in the original STA, Lubbe (2013, p.132) commented that the Act did not specify the format, content or level of detail of the age analysis of debts. The Act also did not indicate whether the age analysis should include all debtors, or perhaps just those over 30 days. In the past, many owners of sectional title units did not want amounts outstanding by them to be disclosed on an individual basis in the financial statements, claiming that the information was of a private and confidential nature. Van der Merwe (2014, pp.14-148-14–149), however, clarifies that section 32 of the Bill of Rights (as incorporated into the Constitution of the Republic of South Africa) and supplemented by the Publication of Information Act guarantee the making available of information. The author explains that the principle is that a person is entitled to be furnished with all available information which affects his interest whether from the state, private persons or organisations. So-called 'sensitive information' may not be excluded. He adds that not only owners, but also prospective owners need bona fide information regarding all aspects of the scheme in which they live or into which they want to purchase. It is therefore evident that the concerns of Lubbe and Van der Merwe were addressed in the new STSMA Regulations.

As per rule 26(c) of the STSMA Regulations, the body corporate financial statements should include an analysis of:

(ii) "***amounts due by** the body corporate to its creditors generally and prominently disclosing amounts due to any public authority, local municipality or other entity for services including, without limitation, water, electricity, gas, sewerage and refuse removal, **classified by creditor** and the **periods** for which such amounts were owed*…" (Own emphasis.)

Prescribed management rule (PMR) 37(2)(b) of the original STA required the trustees to prepare an "*age analysis of amounts owing by the body corporate to the creditors and in particular to any public or local authority in respect of rates and taxes and charges for consumption or services, including but not limited to, water, electricity, gas, sewerage and refuse removal…*". As was the case with the age analysis of debt, Lubbe (2013, p.133) commented that the Act did not specify the format, content or level of detail of the age analysis of amounts owing, whether the age analysis should include all creditors, or perhaps just those over 30 days. Once again Lubbe's concern was addressed in the new STSMA Regulations with the wording now being less vague.

Rule 26(c) of the STSMA Regulations states that the body corporate financial statements should include an analysis of:

(iii) "***amounts advanced** to the body corporate by way of levy finance, a loan, in terms of a guarantee insurance policy or otherwise, setting out the **actual or contingent liability** of the body corporate and the **amounts paid** by the body corporate and by any member in terms of such arrangement…*" (Own emphasis.)

This is an entirely new requirement that will have to be disclosed as part of the financial statements of bodies corporate. One can possibly argue that the above will, as a rule, form part of the disclosure of liabilities in the statement of financial position and accompanying notes to the financial statements.

According to rule 26(c) of the STSMA Regulations, the body corporate financial statements should include an analysis of:

> *(iv)* *"amounts in the* ***reserve fund*** *showing the* ***amount available*** *for maintenance, repair and replacement of* ***each major capital item*** *as a* ***percentage of the accrued estimated cost*** *and the* ***rand value of any shortfall****…*" (Own emphasis.)

As mentioned earlier, the new STSMA requires all bodies corporate to establish and maintain a reserve fund. The disclosure requirement mentioned above will entail identification of individual capital items together with estimates and calculations of varying complexity depending on the body corporate. Furthermore, the reserve fund contribution calculation also entails using a prescribed formula as per the Act. Since it is a new requirement, it is still uncertain whether trustees will feel capable and comfortable doing these estimates and calculations themselves. Lubbe (2013, p.204) pointed out that a great number of bodies corporate do not even prepare 'normal' financial statements themselves.

As per rule 26(c) of the STSMA Regulations, the body corporate financial statements should include an analysis of:

> (v) "*premiums and other amounts* ***paid*** *and payments* ***received*** *by the body corporate and any member in terms of the* ***insurance policies*** *of the body corporate and the* ***expiry date of each policy****…*" (Own emphasis.)

In the original STA, prescribed management rule (PMR) 37(2)(c) only required the trustees to indicate "*the expiry dates of all insurance policies*". Lubbe (2013, p.134) commented that including the expiry dates of insurance policies is an important aspect to include in the financial statements, so that the members of the body corporate can know that their property is properly insured against possible damage for the foreseeable future. Sectional title legal experts have not yet commented on the above additions to the insurance disclosure. However, it is possible that the new STSMA requirements will provide stakeholders with a clearer picture of the state of a body corporate's insurance, whether payments are actually being made, as well as the extent to which claims have been paid out. This may also enable stakeholders to ask informed questions relating to insurance at the body corporate's AGM.

From the above it is clear that in addition to the standard content of annual financial statements, the new STSMA Regulations commands quite a considerable amount of additional disclosure requirements from bodies corporate. These aspects will, however not be dealt with in further detail, since it falls outside the scope of this study.

Under the section in the STSMA Regulations dealing with financial records, budgets, reports and audit (rule 26), it is also stated that the body corporate must prepare the following:

> Subsection (d) "…*prepare a **maintenance, repair and replacement plan** in accordance with rule 22 for presentation at the annual general meeting…"* (Own emphasis.)

As mentioned above, this task may prove to be quite onerous and most trustees will probably need expert help from people with experience or qualifications in construction and property maintenance to provide services in drafting maintenance plans and advising trustees on the matter.

> Subsection (e) "…*prepare **budgets** for the **administrative and reserve funds** comprising itemised estimates of the anticipated income and expenses during the next financial year for presentation at the annual general meeting; provided that such budgets may include **discounts** not exceeding 10 per cent of members' annual contributions applicable if all those contributions are paid on or before the due dates…"* (Own emphasis.)

Prescribed management rule (PMR) 36 of the original STA only required the trustees to prepare "*an itemized estimate of the anticipated income and expenses of the body corporate during the ensuing financial year*". No mention was made of any discounts allowed to members. The possibility of discounts may in future prove to act as an incentive to members to pay their annual contributions upfront.

Small schemes and accounting officers

In the original STA, Prescribed Management Rule (PMR) 40 allowed bodies corporate with fewer than 10 units to appoint what was called an 'accounting officer' to review the financial statements. Lubbe (2013, pp.75–76) pointed out that Prescribed Management Rule 50 in the old STA Regulations defined an 'accounting officer' by referring to the definition in the Close Corporations Act No.69 of 1984. This definition as per the Close Corporations Act is quite wide, and includes members of professional bodies such as The South African Institute of Business Accountants (SAIBA), The South African Institute of Chartered Accountants (SAICA), the Chartered Institute of Management Accountants (CIMA) and The South African Institute of Professional Accountants (SAIPA). In practice, it was found that small bodies corporate of fewer than 10 units did not make extensive use of the services of accounting officers, but rather used the services of auditors (Lubbe 2013, pp.78–79).

In the updated STA, the new STSMA and Regulations thereto, the option for small bodies corporate to appoint accounting officers were scrapped from the legislation. Therefore, the legislation does not contain any definition of or reference to 'accounting officers' anymore. Rule 17(6)(j)(vi) stipulates that an auditor should be appointed to audit the financial statements, unless all sections in the scheme are registered in the name of one person. Rule 26(4) adds to rule 17(6)(j)(vi), stating that unless all the sections in the scheme are registered in the name of one person, the body corporate must present audited financial statements to a general meeting for consideration within four months after the end of the financial year.

The reason for the change in legislation is due to the fact that many banks require audited financial statements of a body corporate as one of the prerequisites in granting a home loan to a prospective buyer of a sectional title unit (Editorial 2016, p.1). Even though the change in legislation is positive from the perspective of prospective buyers of sectional title property, it may negatively impact on the practices of some members of the above-mentioned professional bodies who used to act as accounting officers for bodies corporate.

Audit

Rule 26(5) of the STSMA Regulations introduces a number of new developments regarding what is required during an audit of a body corporate's annual financial statements. These include matters such as the definition of an auditor, segregation of duties, frameworks, opinions and time frames.

Definition of an auditor

In PMR 2(c) of the old STA, an 'auditor' was defined as an auditor qualified to act as such under the Public Accountants' and Auditors' Act No. 1951. As pointed out by Lubbe (2013, pp.66–67) this definition referred to obsolete and outdated legislation.

The new STSMA Regulations defines an auditor in rule 2(1)(c) of the section dealing with interpretations. An auditor is now defined as "*a person accredited to perform an audit in terms of the Auditing Professions Act, 2005 (Act No.26 of 2005)*" (sic). The Auditing Profession Act (APA) defines a registered auditor as an individual or firm registered as an auditor with the Independent Regulatory Board for Auditors (IRBA) (Parliament of the Republic of South Africa 2005, pp.1–7). In turn, IRBA prescribes the minimum qualifications and competency standards of auditors. IRBA also performs various functions with regard to the education, training and professional development of auditors (IRBA 2015, pp.1-16-6-9), and regulates the registration of individuals and firms as registered auditors (IRBA 2015, pp.1–32). The change from the outdated reference to 'auditor' in the old STA to the current definition in the STSMA Regulations is a positive improvement in the new legislation.

Segregation of duties

Probably the most profound change regarding auditing in the new STSMA Regulations is contained in rule 26(5)(a) which reads as follows:

> "…*the* ***audit*** *of a body corporate's annual financial statements must be carried out by an independent auditor who has* ***not*** *participated in the* ***preparation of the annual financial statements*** *or* ***advised on any aspect*** *of the* ***accounts*** *of the body corporate during the period being reported on*…" (Own emphasis.)

In practice, the majority of audit practitioners currently involved in sectional title audits prepare the annual financial statements for the body corporate, as well as carry out the audit work (Steenkamp & Lubbe 2017, pp.1–2). Some practitioners also complete tax returns, prepare budgets and provide business advice for their sectional title clients (Lubbe 2013, p.194;206; Steenkamp & Lubbe 2015a, p.554).

Auditors of sectional title schemes should read this change in legislation in conjunction with section 290.167 of the Code of Professional Conduct for Registered Auditors, which deals with auditor independence regarding the preparation of accounting records and financial statements (International Federation of Accountants 2009, p.78). The Code stipulates that management (in the case of sectional title, the body corporate) is responsible for the preparation and fair presentation of the financial statements in accordance with the applicable financial reporting framework. These responsibilities include preparing source documents, originating or changing journal entries, etc. Should the auditor assume responsibility for these activities, a self-review threat may arise, and consequently safeguards should be put in place (Jackson & Stent 2014, p.2/35; Marx et al. 2011, pp.3–39).

There are three possible safeguards that an auditor can put in place to address this self-review threat (Steenkamp & Lubbe 2017, pp.1–2). Firstly, it can be arranged that the accounting services be performed by an individual who is not on the audit team. If such services are performed by a member of the audit team, using a partner or senior staff member with appropriate expertise who is not a member of the audit team to review the work performed. Secondly, the audit team should be notified that they may not make any management decisions. Thirdly, it should be made perfectly clear for management (the body corporate) that they are responsible for the source data, transaction approval, journal entries etc., and clarify what the audit team is permitted to do (Jackson & Stent 2014, p.2/35; The South African Institute of Chartered Accountants 2015c, p.1; Marx et al. 2011, pp.3–39).

Recognised framework

The legislator made a number of profound errors in the wording of STSMA Regulation rule 26(5)(b), which states the following:

> "…*the **audit** of a body corporate's annual financial statements **need not be carried out** in accordance with **any recognised financial reporting framework of guidelines** for **financial accounting***…" (Own emphasis.)

R.D.C. Jackson & Stent (2014, p.1/4) explains that in the context of the auditing and accounting profession, the term audit is defined in the Auditing Profession Act No. 26 of 2005 (APA). The term 'audit' means "…*the examination of … financial statements, financial and other information … in accordance with prescribed or applicable **auditing standards***." (Own emphasis.) The authority to conduct an audit of financial statements or financial information is restricted to auditors registered with the Independent Regulatory Board for Auditors (IRBA), who must, according to law, perform their work as prescribed by the APA. It is indeed strange that the legislator refers to the APA when defining an 'auditor' (as mentioned above), but attempts to bypass the requirements of the APA when addressing how the work should be carried out.

The 'applicable auditing standards' as prescribed by the APA is the International Audit Standards (ISAs). The ISAs provide the standards to which the auditor must attain and provide guidance on how this should be done, covering the entire audit process (Jackson & Stent 2014, p.1/17). It is therefore not up to the Department of Human Settlements to prescribe that the audit "…***need not be carried out** in accordance with **any recognised framework of guidelines** for **financial accounting***…" (Own emphasis.) In practice, not performing an audit according to the ISAs will constitute a legal offence for which an audit practitioner may face disciplinary action, suspension or removal from the register of auditors (The South African Institute of Chartered Accountants 2015a, p.1).

The wording "*in accordance with any recognised framework of guidelines for **financial accounting***…" (own emphasis) used to describe how an **audit** should be performed is very ambiguous and confusing. As mentioned above, an audit is performed in accordance with audit (not accounting) standards.

Opinions

STSMA Regulation rule 26(5)(c) states the following:

> "…*the* ***audit*** *of a body corporate's annual financial statements must include* ***opinions*** *as to whether or not*
>
> *(i) the annual* ***financial statements accurately reflect*** *the* ***financial position*** *of the body corporate for the financial year under review, with such* ***qualifications and reservations*** *as the auditor considers necessary;*
>
> *(ii) the body corporate has* ***complied with the accounting requirements*** *set out in* ***rules 21, 24 and this rule 26****, with a specific* ***description of any failure*** *to comply with such requirements;*
>
> *(iii) the* ***books of account of*** *the body corporate have been* ***kept*** *and its* ***funds*** *have been* ***managed*** *so as to provide a* ***reasonable level of protection against theft or fraud****; and*
>
> *(iv) the* ***financial affairs*** *of the body corporate appear to be* ***effectively managed****…"* (Own emphasis)

As was the case in the previous section, it seems as though the legislator is finding himself in somewhat unfamiliar territory, attempting to prescribe to auditing practitioners how they should go about conducting their audits and what they should give opinions on.

Firstly, the auditor is required by the STSMA rule to give an opinion as to whether the financial statements **accurately** reflect the **financial position** of the body corporate. Regarding this requirement, it should be noted that the objective of financial statements, according to International Financial Reporting Standards (IFRS), is to provide information on the financial position, financial performance as well as the cash flows of an entity (Koppeschaar et al. 2014, p.26), and not just the financial position of an entity. Furthermore, an auditor forms an opinion on **fair presentation** (not accurate reflection) (Jackson & Stent 2014, p.1/7-1/8). It is important to note that an audit engagement provides **reasonable assurance** (not absolute assurance). ISA200 dealing with overall objectives of the Independent Auditor, defines reasonable assurance as a 'high but not absolute' assurance. The practitioner will reduce engagement risk to an acceptably low level in the circumstances of the engagement as the basis for the practitioner's conclusion (The South African Institute of Chartered Accountants 2015b, p.75; Jackson & Stent 2014, p.1/8). Moreover, the drafting and issuing of the audit report is the final stage in the audit process, in terms of ISA700. R.D.C Jackson & Stent (2014, p.18/2) explains that, to be in a position to form the opinion, the auditor must draw his conclusion taking into consideration a great number of factors. The auditor will, based on his opinion, issue either an unmodified or a modified audit report and may add information to the report for the benefit of users, in terms of South African Auditing Practice Statement 3 (SAAPS3) (Revised) (The South African Institute of Chartered Accountants 2015b, p.SAAPS3(REVISED)-1; Jackson & Stent 2014, p.18/2-18/14). It is therefore not simply a case of adding *"qualifications and reservations as the auditor considers necessary*" as the wording in the STSMA suggests.

Secondly, there is a requirement for an **opinion** on whether the body corporate has **complied** with the **accounting requirements** set out in **rule 21** (dealing with financial management, financial year, functions and powers), **rule 24** (dealing with administrative and reserve funds) and **rule 26** (dealing with financial records, budgets, reports and audits) with a specific **description of any failure** to comply with such requirements. The wording is not clear as to what exactly is expected when the auditor should test for this "*compliance with accounting requirements*" in the mentioned rules and sections. Many of the mentioned rules were discussed in the above sections of this paper. Therefore, it can be argued that audit practitioners may perhaps in future become even more reluctant to take on assurance engagements of sectional title clients.

Thirdly, an opinion is required as to whether the **books of account of** the body corporate have been **kept** and its **funds** have been **managed** so as to provide a **reasonable level of protection against theft or fraud**. ISA240 deals with the auditor's responsibilities relating to fraud in an audit of financial statements (International Auditing and Assurance Standards Board 2013, p.157). R.D.C. Jackson & Stent (2014, p.7/32) comment that in terms of ISA240, the objectives of the auditor are to:

- identify and **assess the risk** of material misstatement of the financial statements **due to fraud**;
- **obtain** sufficient, appropriate **audit evidence** regarding the **assessed risk** of material misstatement through designing and implementing appropriate responses; and
- **respond** appropriately to fraud or suspected fraud identified during the audit. (Own emphasis.)

The authors also make it clear that the responsibility for the prevention as well as detection of fraud and error lies with management and those charged with governance, not with the auditors (Jackson & Stent 2014, p.7/34; Marx et al. 2011, pp.6–4). ISA240 stipulates that there are five requirements of the auditor in respect of fraud. Firstly, the auditor should maintain an attitude of professional scepticism throughout the audit. Secondly, the audit team should be made aware of 'what to look out for' during the audit. Thirdly, the auditor should conduct relevant risk assessment procedures and related activities. Fourthly, the risk of material misstatement due to fraud should be identified and assessed at both the financial statement level and at the assertion level. Finally, an overall audit response should be determined to address the risk of material misstatement at the two mentioned levels (SAICA & IAASB 2016, pp.169–171; Marx et al. 2011, pp.6-4-6–7).

SAAPS3, which contains illustrative audit reports, also addresses the auditor's responsibility clearly. The wording of a standard Independent Auditor's Report is as follows:

> "…*An audit involves performing **procedures** to obtain audit **evidence** about the **amounts and disclosures in the financial statements**. The procedures selected depend on the auditor's judgement, including the **assessment of the risks of material misstatement** of the financial statements, whether due to fraud or error. In making those risk assessments, **the auditor considers internal control** relevant to the entity's **preparation of the financial statements** in order to design audit procedures that are appropriate in the circumstances, but **not for***

the purpose of expressing an opinion on the effectiveness of the entity's internal control. *An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements*…" (Own emphasis.)

In light of ISA240 and SAAPS3 it is therefore clear that the auditor cannot be expected to express an opinion as to whether the body corporate is protected against theft or fraud.

Fourthly, an opinion is expected as to whether the "***financial affairs*** *of the body corporate appear to be* ***effectively managed****…*" As was mentioned above, in performing the audit, the auditor will **consider internal control** relevant to the entity's preparation of the financial statements in order to design audit procedures that are appropriate in the circumstances, **but not for the purpose of expressing an opinion** on the effectiveness of the entity's internal control (Jackson & Stent 2014, p.7/34).

Opting out of being audited

Technically, a body corporate can opt not to be audited. This can be done by means of amending the rules of a body corporate. The following is stipulated in Section 35 of the original Sectional Titles Act:

> *"(1) A scheme shall as from the date of the establishment of the body corporate be controlled and managed, subject to the provisions of this Act, by means of* ***rules***
>
> *(2) The rules shall provide for the control, management, administration, use and enjoyment of the sections and the common property, and shall comprise*
>
> *(a) management rules, prescribed by regulation, which rules may be substituted, added to, amended or repealed by the developer when submitting an application for the opening of a sectional title register, to the extent prescribed by regulation,* ***and which rules may be substituted, added to, amended or repealed from time to time by unanimous resolution of the body corporate as prescribed by regulation****…"* (Own emphasis.)

Paddock (2010, p.8) explains that the Sectional Titles Act makes provision for rules to be altered, but that the necessary procedures should be followed. The auditing of sectional titles schemes was previously governed by Prescribed Management Rules (PMR) 2, 40 and 56. As a result, one could interpret Section 35 in such a way that a unanimous resolution may be passed, removing those PMRs from the rules of the scheme. This was especially helpful in cases such as, for example, self-managed schemes with a limited number of owners who did not want to incur the extra expense and administration involved in having the financial statements of the complex audited.

The above option is still available for schemes in terms of the amended STA. Section 30 states the following:

> "*(4) The management rules set out in Annexure 8 may be* ***added to, amended or repealed by unanimous resolution of the body corporate****: Provided that no such addition, amendment or repeal shall be made until such time as there are owners, other than the developer, of at least 30 per cent of the units in the scheme save in*

the case of a body corporate which is established in a scheme which was approved in terms of the Sectional Titles Act, 1971." (Own emphasis.)

Since the auditing of sectional title schemes is now governed by Rule 26 of the Regulations to the STSMA, the option is technically still available, but not advisable in cases where the units in the scheme are registered in the name of more than one person. As mentioned above, banks often require audited financial statements of a body corporate as one of the preconditions before granting a home loan to a prospective buyer of a sectional title unit. The intention of the legislator regarding this is quite clear, as stated in Rule 17(6)(j)(vi) of the STSMA Regulations. It stipulates that an auditor should be appointed to audit the financial statements, unless all sections in the scheme are registered in the name of one person. As mentioned earlier in this paper, it should also be noted that the auditing of the annual financial statements is perceived to add great value to schemes (Steenkamp 2017, pp.365–367).

Time frame

STSMA Regulation rule 26(5)(d) stipulates that the audit of the body corporate's annual financial statements must be completed within four months of the end of the body corporate's financial year. Rules 17(1) and 17(2) of the STSMA Regulations specify that the body corporate must hold an annual general meeting (AGM) within four months of the end of each financial year. This is still in line with PMR 51 of the old STA.

General

According to Riddin (2011, p.1) the practitioners who draft financial statements often fail to see that the financial statements must comply with specific requirements of sectional title legislation. He also mentions a few other specific aspects that need to be checked, complied with or reported on, such as

- whether his or her firm's appointment is reflected in the minutes of the annual general meeting;
- that any added, amended or deleted management or conduct rule has been submitted to the Registrar of Deeds for filing;
- that any restrictions imposed on or directions given to trustees at a general meeting have been complied with;
- that all contracts have been properly signed and supported by a resolution formerly and correctly minuted;
- that levies have been determined correctly;
- that all the required minutes have been kept that the minutes record the transactions that form the basis for the accounting entries, for example approval of the budget at the AGM and the raising of levies by the trustees; and
- that the accounting complies with the Act and the rules of the scheme.

Van der Merwe (2014, p.147) and Riddin (2011, p.1) point out that these matters must be kept in mind when professionals are appointed to prepare the annual financial statements on behalf of the trustees. Due to the fact that the ultimate responsibility rests with the body corporate, it is vital that the trustees work closely with the appointed professional firms who specialise in sectional title matters.

It is worth noting that Van der Merwe (2014, pp.14–81) holds the same view as Lubbe (2013, p.31) that body corporate audits are not auditors' most profitable work. Riddin (2011, p.1) adds that trustees should realise that to meet all accounting, auditing and sectional title needs, higher accounting and auditing fees may have to be expended.

Comparative summary

The table below indicates the extent to which the various aspects above changed from first to third generation legislation.

	Extent of change from first to third generation legislation			
Aspect	**New**	**No changes**	**Minor changes**	**Major changes**
Functions of bodies corporate				X
Funds and reserves	X			
Administrative fund	X			
Reserve fund	X			
Contributions and charges			X	
Bank accounts			X	
Onus of financial management			X	
Financial year end			X	
Books of account			X	
Annual financial statements				X
Small schemes and accounting officers				X
Audit				X
Definition of an auditor				X
Segregation of duties				X
Recognised framework				X
Opinions				X
Opting out of being audited			X	
Time frame		X		

Table 1: Extent of change from first to third generation legislation

RECOMMENDATIONS AND FURTHER RESEARCH OPPORTUNITIES

The literature review addressed the accountancy-related aspects as identified in the first and third generation sectional title legislation. Role players in the sectional title industry, namely body corporate trustee chairpersons, managing agents of bodies corporate, sectional title accounting and auditing practitioners should take note of the legislative changes and its effects. Persons responsible for the accounting functions of bodies corporate should take specific note of the new disclosures required by the legislation, and take it into consideration in future accounting work. Auditing practitioners should also take note of the new auditing requirements and the possible increases in risks flowing from the new legislation. Specific attention should be paid to matters relating to trust money, and possible occurrences of non-compliance with sectional title laws and regulations. Furthermore, the accountancy professional bodies involved in sectional title accounting and auditing, such as the South African Institute of Chartered Accountants (SAICA) and the South African Institute of Professional Accountants (SAIPA) should also consider issuing guidelines specifically for practitioners involved in sectional title accounting and auditing, in order to assist them in addressing the new legislative changes. The professional bodies should also consider engaging with the legislator in terms of the various new legislative aspects that are not in line with internationally accepted accounting and auditing practices and standards.

Regarding further research opportunities, a future research study can be undertaken once third generation sectional title has been in effect for a certain time period. The implementation by bodies corporate of the new legal aspects can be researched, and the effect of legislative changes on the finances of bodies corporate can also be analysed.

CONCLUSION

No academic research has been undertaken as yet on third generation sectional title legislation from an accounting and auditing perspective. Therefore, this was the first study of its kind undertaken in South Africa. In this paper the findings of a literature review comparing first generation and the new third generation sectional title legislation was discussed, and specific reference was made to accountancy-related aspects. Recommendations were made on how sectional title role players can prepare for the new legislative aspects, and further research opportunities in this regard were also discussed.

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AUD009 **EXPLORING VARIOUS BUSINESS RESCUE PRACTICES IN SOUTH AFRICA**

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ABSTRACT:
Business rescue proceedings attempt to rehabilitate businesses that are in financial distress and provide them with an alternative to liquidation (Companies Act No. 71 of 2008). Despite its importance, there is a seemingly low rate of success of the current business rescue regime (at just 13.6% as at June 2015 and 15% as at 30 June 2016 (Companies and Intellectual Property Commission, 2016). This article seeks to build on our current understanding of some of the key issues that may be hindering the current rate of success of business rescue practices and thereby aims to assist practicing accountants (in their capacity as business rescue practitioners). This will allow them to better perform their duties and also gives corporates in need of rescue a fighting chance.

Through the use of qualitative interviews, this study provides detail on five key insights to business rescue practices in South Africa, namely: the effect of the change in the regime (from judicial management to business rescue), the effect of financial distress and the possibility of voluntary applications for business rescue, the effect of inconsistent court judgements on business rescue proceedings, the congruence of the South African business rescue regime with that of other jurisdictions and lastly the effect of creditors and the ability to source funding in business rescue proceedings.

Key words:
Business Rescue; Success; Rescue; Companies Act; South Africa; Rescue practice.

INTRODUCTION, SIGNIFICANCE AND BACKGROUND:

Business rescue proceedings attempt to rehabilitate businesses that are in financial distress and provide them with an alternative to liquidation (Companies Act No. 71 of 2008). Successful business rescue proceedings are in the interests of South African society; the successful rescue of financially distressed companies will limit job losses and this is extremely relevant in South Africa where unemployment figures are high (Loubser, 2010). Loubser (2010) also explains that a increasing number of South Africans hold shares in listed companies indirectly and that individual shareholding has increased in South Africa. In particular, 95% of the shareholders in South Africa’s publicly traded, broad-based black economic empowerment (BBBEE) share-purchase schemes are individuals (van Zyl, 2015). This emphasises the fact that companies are part of the community and that their failure will impact the community, placing greater importance on their rescue (if needed).

There are two requirements for the use of business rescue provisions: the company must be ‘financially distressed’, and there must be a reasonable prospect of rescuing the company (Companies Act No. 71 of 2008). ‘Financial distress’ refers to the appearance that the company will not be able to pay its debts as they fall due in the following six months or that the company will become insolvent in the following six months (Companies Act No. 71 of 2008). Business rescue can be entered voluntarily by the company, or applied for by creditors, shareholders and employees (Companies Act No. 71 of 2008). The Association of Chartered Certified Accountants states:

> “The primary objective with business rescue provisions is to save the company as a going concern. If this is not possible, then the secondary object or goal is to restructure the company in such a way that shareholders and creditors will still get a return on their investments, which is better than the return that they would have received should the company be liquidated.” (ACCA, 2014)

Judicial management, which is often viewed as a precursor to liquidation, was used prior to the implementation of business rescue, for a similar purpose (Levenstein, 2008; Naidoo, Patel & Padia, 2016). The business rescue provisions introduced in 2008 ensured the correlation of South African company law with international provisions for corporate turnarounds (Levenstein, 2008) and aimed to address the shortcomings inherent in judicial management (Loubser, 2010; Naidoo, et al., 2016). Despite the provisions made in the Act to rehabilitate businesses, business rescue proceedings do not always succeed in rehabilitating the company as reflected by the current low rate of success (the Commission, 2014; the Commission, 2015). (It is noted that this rate of success is measured on the basis of a successful implementation of the business rescue plan constituting success.) The Minister of Trade and Industry acknowledges that the regime has several shortcomings such as “sanctions applied to business [rescue] practitioners and the regulation of their activities” (the Commission, 2014, p. 6).

The purpose of this paper is to elicit key insights on the current practice of business rescue to understand the regime better, through the use of the views elicited from experienced business rescue practitioners, and thereby improve on its success. The study is explorative in nature with key focus areas being: the effect of the change in the regime (from judicial management to business rescue), the effect of financial distress and the possibility of voluntary applications for business rescue, the effect of inconsistent court judgements, the congruence of the South African business rescue regime with that of other jurisdictions and lastly the effect of creditors and the ability to source funding in business rescue proceedings. Business rescue provisions were inserted into the Companies Act (2008) in order to improve on the previous regime – judicial management – which was not considered to be very successful. Business rescue has a greater chance of success when the warning signs of financial distress are acted upon. Court judgements have an important role to play in the development and clarification of legislation and thus have the ability to influence the impact of the regime. There are similar corporate rescue regimes internationally which have some similar characteristics and which may provide further guidance. Lastly, the availability of funding and the support of creditors may have a key role to play in business rescues and the overall success of the regime. These key factors are examined.

LITERATURE REVIEW:

1. Judicial management:

The business rescue regime legislated in the Companies Act No. 71 of 2008 replaces judicial management which has been perceived by the market as a step toward liquidation (Levenstein, 2008). Under the Companies Act of 1973, a company which was financially distressed and could not meet its obligations had two alternatives to liquidation: judicial management or reaching a compromise with creditors (Claasens, 2012). Judicial management thus served as a formal corporate rescue procedure, although it was not seen to be an effective means of rescuing companies in financial distress because of its low rate of success and instances of abuse. Judicial management was also only available to companies and not to close corporations (Lamprecht, 2008), and was also considered to be "cumbersome and was not accessible enough" (Alberts, 2004, p. 81). Further, it was considered to be a "special and extraordinary privilege that should be granted only in very special circumstances" (Loubser, 2008, p. 373). Bradstreet (2011) explains that of the companies that made use of the judicial management provisions, less than 20% avoided being wound up (i.e. an 80% failure rate) after being placed into judicial management.

Claasens (2012) cites that this failure arose due to the high level of probability of success required for the rescue proceedings to be initiated and the requirement that the company wholly settles its debt with its creditors, as part of the judicial management proceedings. Thus, judicial management could only be invoked if the company was already insolvent (The Centre for Advanced Corporate and Insolvency Law, 2004; Lamprecht, 2008). There was also a great level of court involvement which was "self-defeating" (Rajak & Henning, 1999, p. 268) which also made it unsuitable for smaller businesses (Rajak & Henning, 1999; Lamprecht, 2008). Further, there was an onerous burden of proof placed on the applicant (for judicial management) to show that it is probable that the company will be rescued (as opposed to the possibility of being rescued) (Lamprecht, 2008).

The Centre for Advanced Corporate and Insolvency Law (2004) quotes Harmer (1997) as saying that a business rescue regime has a better chance of achieving the intended objective if the insolvency provisions are debtor-friendly. Judicial management also had a negative impact on the credit rating of the company and made it difficult for the company to obtain financial assistance (Claasens, 2012) with which to rehabilitate itself. Due to the low success rate under judicial management, creditors would often resort to "cutting their losses" (Bradstreet, 2011, p. 356) through supporting the immediate liquidation of the company.

The business rescue provisions legislated in the Companies Act attempt to improve on and address the above flaws of judicial management. The current business rescue regime recognises the value of the entity as a going concern and considers all affected parties (not only the interests of the creditors) (Bradstreet, 2011). Furthermore, business rescue provisions in the Companies Act can be applied when the company is financially distressed and need not be invoked only when the company is already insolvent (Companies Act No. 71 of 2008). The business rescue provisions in the Companies Act bring about several improvements and address some of the flaws inherent in judicial management - whether business rescue provisions suitably compensate for the inadequacies in judicial management is what this study partly endeavours to explore by interviewing South African practitioners and obtaining their views in this regard.

2. Financial distress and voluntary business rescue:

For business rescue to succeed, it is imperative that prompt action and decisions are taken (Finch, 2005). Olivier (2014) states that delaying the process of requesting assistance when needed is the worst thing a business can do. It is, therefore, imperative to recognise the warning signs and ask for help earlier (Olivier, 2014). Warning signs exist in several different categories, including management, finances, operations, strategy and banking (Pretorius & Holtzhauzen, 2013). An earlier start of a rescue procedure increases the chances of its success (Loubser, 2010).

The board of a company may delay in initiating business rescue because of its belief that there is not a reasonable prospect of rescuing the company, or it believes it can continue and trade its way back to good financial health or it may wish to reward itself (the members of the board) (Loubser, 2010). This reward would come in the form of stripping some of the assets of the entity before it is closed down (Loubser, 2010). In both: the case of attempting to trade the company out of financial distress or attempting to strip the company’s assets for personal benefit, the directors may want to keep this information away from creditors to enhance their own ability to achieve their goal (Loubser, 2010). An entrance into business rescue would require informing creditors and this action will, therefore, be avoided.

The Companies Act does, however, provide that if the requirements for voluntary entrance into business rescue are met and the directors decide not to place the company into business rescue proceedings, a notice must still be issued to affected persons disclosing this fact (Companies Act No. 71 of 2008). Finch (2005) and Loubser (2010) both note, however, that the onerous requirements for notifications to be sent may act as a deterrent because this is a costly exercise. This paper will thus explore whether there are any practical issues that are standing in the way of the success of the regime at present which can contribute to the above literature.

3. Court judgements:

As an alternative to entering into business rescue voluntarily, a shareholder, creditor, trade union representing employees of the company or employees not represented by the trade union (an “affected person”) can apply to the court at any time for an order to place the company in business rescue (Companies Act No. 71 of 2008). Upon application, the court has discretion either to dismiss the application or to place the company under business rescue (Claasens, 2012). Claasens further states that, if there is a “reasonable possibility” of being rescued (2012, p. 11), the court should place the company under business rescue.

The lack of a specialist court has been blamed for the lack of success of business rescue as the lack thereof has resulted in contradictory judgements (Ensor, 2014). This refers to the fact that not all judgements are made in support/in precedent with other judgements previously made. This impedes the success of business rescue as it leaves practitioners with uncertainty about what are acceptable actions in the context of business rescue. Certain provisions in the Companies Act seem to lack clarity, such as the meaning of "reasonable prospect." Case law would ordinarily clarify this meaning but the conflicting judgements in this area do not allow for the establishment of clear criteria (Ensor, 2014). This paper partly aims to explore the importance and effect of court judgements (both quantitatively and qualitatively) on the business rescue process.

4. International provisions:

Although South Africa was one of the first countries to introduce a form of corporate rescue through judicial management, prior to the Companies Act No. 71 of 2008, it lagged behind other countries in terms of its business rescue regime (The Centre for Advanced Corporate and Insolvency Law, 2004). This was due to a few progressions in other corporate rescue regimes abroad that South Africa did not keep abreast of (as judicial management had not changed substantially since its enactment) (Kloppers, 1999). The trend in other modern corporate rescue regimes was to rescue the company and the business carried on by it (Bradstreet, 2011), while judicial management in South Africa was perceived simply to precede liquidation (Levenstein, 2008), which would not allow such a rescue to take place. It seemed that business rescue regimes worldwide were popular and judicial management was traditionally perceived as unsuccessful (The Centre for Advanced Corporate and Insolvency Law, 2004). That is, judicial management was seen as an extraordinary measure, while other jurisdictions saw business rescue as a necessary and natural predecessor for insolvency (The Centre for Advanced Corporate and Insolvency Law, 2004).

In establishing its own business rescue regime, South Africa had the opportunity to learn from those of the United States of America (U.S.A.), Germany, Canada, the United Kingdom (U.K.) and Australia (Claasens, 2012; Cawood, 2014) because these countries had already instituted such practices.

In the U.S.A., the goal of filing a *Chapter 11 petition* for corporate rescue (as opposed to filing for liquidation under Chapter 7) is to become profitable (U.S. Securities and Exchange Commission, 2009). This is similar to one of the objectives of the Companies Act in terms of business rescue – to rehabilitate the company. However, the U.S.A.'s corporate rescue regime allows the company itself an opportunity to propose a rescue plan within 120 days of a petition being filed (Pont & Griggs, 1995). This allows the board to propose a rescue regime and does not call for the appointment of an external person (such as a business rescue practitioner). This is because it is believed that the board has the "requisite hands-on knowledge of a company's immediate state of affairs" (Finch, 2005, p. 391) and may be better able to develop a feasible rescue plan than an external person who is not familiar with the business.

Further, the 120 days allowed by U.S.A. legislation (Pont & Griggs, 1995) to develop a rescue plan is significantly longer than the 25 days currently allowed by South African legislation (Companies Act No. 71 of 2008). The additional time may allow for a more comprehensive investigation and the preparation of a better, more feasible plan. In turnaround situations, there is often dependence on financial reports, which are often inadequate and are found to be “after the fact” (Pretorius & Holtzhauzen, 2013, p. 468).

Unlike the corporate rescue regime in the U.S.A., the German business rescue regime does not provide for a debtor in possession (where the company itself has an opportunity to rescue itself and is in control of its own affairs) and does not place priority on reorganisations (Loubser, 2010). German law provides that rescue should only be an option if the value of the business as a going concern exceeds the liquidation value (Loubser, 2010) and there is no difference in the procedure, under German law, regardless of whether it is expected that the company be liquidated or rescued (Loubser, 2010). The Canadian business rescue regime on the other hand has three main goals (similarly to those of the U.S.A., Australia and the U.K.) – the impact on all stakeholders should be beneficial and an economically viable company should emerge from the rescue or there should be a better return for creditors than that achieved under liquidation (Conradie & Lamprecht, 2015). The latter two objectives are similar to those of the South African business rescue regime.

The U.K.’s corporate rescue provisions are similar to that of South Africa and aim to preserve the continuation of the business as a going concern and to preserve some jobs as a result (Loubser, 2010). The U.K.’s Insolvency Act provides that financially distressed companies will have an administrator appointed to assist and that this administrator will have a wide range of management powers (Loubser, 2010). Administration is only available if a company satisfies two conditions: the company is or is likely to be unable to pay its debts and administration is reasonably likely to satisfy the intended objective of administration proceedings (Loubser, 2010). The intended objective of administration proceedings is to rescue the company as a going concern and, if this is not possible, to achieve a better return for creditors than that which would have been achieved had the company been wound up (Loubser, 2010).

Administration grants the company a moratorium on the enforcement of claims and repossession of security (Armour, 2004). This is in line with the South African business rescue regime. It was however found that the main cause of financial difficulty for the companies that entered into the U.K.’s corporate rescue procedure was poor management and poor economic conditions and that the breathing space afforded by the moratorium has a significant effect (Pandit, Cook, Milman, & Chittenden, 2000).

The Australian approach was guided by the approach of the U.K. and the U.S.A. (Routledge & Gadenne, 2004). The objective of the Australian corporate rescue regime is to maximise the possibility of the company continuing or, if this is not possible, to provide a better return than immediate winding up (Anderson, 2001). Australia’s business rescue provisions call for the appointment of an independent, external ‘company administrator’ who is appointed by the board of directors (Pont & Griggs, 1995). This is similar to the appointment of the business rescue practitioner under the current South African regime. However, in contrast to South Africa, the company administrator must also be qualified as a liquidator (Anderson, 2001). When the company administrator is appointed and the company effectively enters into voluntary administration, there is a short moratorium on the enforcement of debts against the company but there are certain exceptions[12] (there are no exceptions of this

[12] These exceptions apply when the holder of a charge over the whole or substantial amount of company assets acts before or during the decision period and enforces that charge; when a secured creditor holding a charge has assumed possession or control over that property or has made arrangements for its sale; when a secured creditor holds a charge over perishable property; and when, prior to the

nature to the moratorium in the South African business rescue regime) (Museta, 2011). This regime, however, accepts that rescue need not necessarily rule out liquidation but should provide a better return to creditors than winding up (liquidation) (Oakdene Square Properties (Pty) Ltd v Farm Bothasfontein (Kyalami) (Pty) Ltd (609/2012) [2013] ZASCA 68, 27 May 2013).

The provisions for business rescue inserted into the Companies Act bring South African company law in line with international provisions for corporate turnarounds (Levenstein, 2008). However, it is important that a business rescue regime is specifically tailored for the economic and social conditions of a country (Claasens, 2012), which may/ may not be the case for South Africa and is what this paper partly aims to explore.

5. Creditors and funding:

Olivier (2014) states that not every business is a candidate for business rescue and that business rescue will only succeed if shareholders are willing to provide some form of working capital. A lack of available funding could seriously impede the success of business rescue as, without it, the company is unable to sustain its operations (Thomas, 2014). The delivery of any notice stating that the company is in financial distress could severely impede the ability of the company to secure funding and could potentially result in the cancellation of credit facilities and in demands by suppliers to be paid immediately (Loubser, 2010). Vriesendorp & Gramatikov (2010) cite that a large majority of insolvency practitioners find that it is more difficult to find funding for companies that are in financial distress, especially when the company needs the funding most (when it is in financial distress).

Finch (2005) points out that in times of financial distress, banks (and other creditors) can demand certain terms and these terms may give them the ability to influence the strategy of the company. New funding from shareholders also increases the equity these shareholders hold in the company and will allow these shareholders greater control over the company (Finch, 2005). Despite this, the fact that the Companies Act provides post-commencement financiers with superior priority may make it easier for the company to obtain funding (Companies Act No. 71 of 2008). Finch (2005) points out that a flaw in the U.K. Corporate rescue regime is that it does not place the superior priority status on post-commencement financiers. However, despite this and the recognition by the World Bank and UNCITRAL[13] that post-commencement financing is of importance, South Africa seems to lack significant available post-commencement finance (du Preez, 2012). There is also a lack of understanding by creditors of the business rescue process, which may greatly hinder their ability to participate meaningfully in business rescue (le Roux & Duncan, 2013). The importance of the commitment by creditors and shareholders, particularly in their role as providers of finance, is an area that is explored by this research paper.

METHODOLOGY[14]:

The results in this paper are formulated based on the insights and experiences of business rescue practitioners (with more than ten years of experience) using interviews. Thus, this paper is qualitative and exploratory in nature. The literature reviewed pointed out some of the potential shortcomings of the regime from which themes were developed, which then

appointment of the administrator, owners or lessors of property used by or in possession of the company enforce a right to take possession of that property (Museta, 2011).

[13] United Nations Commission of International Trade Law

[14] The methodology has been adapted from Naidoo et al. (2016)

formed the basis for an interview agenda. The transcripts from these interviews were coded (with reference to common themes) in order to formulate results. The results presented in the next section are, in certain cases, described by quoting the words of the interviewee. However, interviewees are not identified in order to protect their confidentiality.

Business rescue practitioners have been selected as constituents of the population as they were anticipated to have the most pertinent insight for the study, as they facilitate business rescue proceedings in South Africa (Companies Act No. 71 of 2008). From the 85 experienced and senior registered business rescue practitioners based in Gauteng (as at 31 March 2014), a total sample of thirteen were selected (Chen, Danbolt & Holland, 2014; O'Dwyer, Owen & Unerman, 2011; Rowley, 2012) from the Companies and Intellectual Properties Commission's (CIPC) database, as data saturation was expected to occur at this point. Interviews were conducted in Gauteng between June 2015 and November 2015. Interviewees comprised business rescue practitioner of different experiences (based on information available from the CIPC (the Commission, 2015): interviewees comprised six practitioners from an accounting background, one member of the Institute of Directors, two business consultants, two attorneys, one financial advisor and one other professional.

Due to the use of purposive sampling, interviews were deemed to be the most appropriate method. The use of the standardised interview agenda allowed for comparisons between responses of different participants to be made. In addition, the research was performed using semi-structured interviews, which allowed interviewees to talk freely about the topic, which, in turn, allowed for a deeper understanding of the interviewees' practice and perceptions of business rescue (Holland, 1998).

Data gathering and examination made use of an iterative process of interview responses being analysed in terms of the literature and responses of other participants (Willig, 2008). The authors alternated between evaluating interview data and reviewing literature based on the emerging themes (Willig, 2008). The data was processed using a methodical set of procedures to derive results (O'Dwyer, et al., 2011).

The transcripts of the interviews were analysed through a formal process of data reduction and data verification (O'Dwyer, et al., 2011). In order to facilitate data reduction and establish key themes (O'Dwyer, et al., 2011), a detailed reading of transcripts and rereading of the literature was undertaken. Themes were then individually coded to assist with analysis (Rowley, 2012). Consideration of any apparent inconsistencies within a specific transcript or between interviewees was also completed (O'Dwyer, et al., 2011). In addition, the responses were considered in conjunction with the literature to identify resemblances and dissimilarities. Once theoretical saturation occurred, concepts were then developed from the coded data.

To ensure that the findings of the research are more reliable, interviewees were asked to make any additions/corrections to interview transcripts (Leedy & Omrod, 2013). External validity was also established through a peer review process wherein the classification and coding was assessed (Rowley, 2012).

RESEARCH FINDINGS:

1. Judicial management:

When asked about judicial management, twelve of the thirteen participants believed that judicial management was not an appropriate and effective corporate rescue procedure, while one did not provide a clear answer. Many participants remarked that there were very few cases of judicial management achieving success. These views iterate that the current business rescue regime is an improvement on its predecessor. A participant stated that it was simply “a waste of everyone’s time”. Another commented that it was “tainted too early” and was “perceived to be a step prior to liquidation”. Accordingly, judicial management required paying all debts in full and, under this regime, the company would have to “find a way to live with all the shackles on going forward”. This shows that this regime was not debtor-focused. One participant used the analogy of a glass of water to explain:

> “Judicial management looks at saving the glass (the vessel; the juristic person), [whilst] business rescue says saves the water”

Another participant pointed out that judicial management was the “first of its kind” and was likely effective in its aims initially but “didn’t keep pace with the changing business environment”. This reiterates that although South Africa was initially at the forefront of corporate rescue, it lagged other countries for a while after the enactment of judicial management. One participant noted that judicial managers were liquidators and approached their duties with the intention to liquidate. This highlights the lack of debtor friendliness of this regime. It was also stated that judicial management was an “organised liquidation” and a process which “allowed an abusive approach”.

Overall, all participants agreed that business rescue was more beneficial than judicial management and a variety of reasons were provided. The ‘flexibility’ provided by business rescue (as an advantage over judicial management) was common to many of the responses. One participant explained this ‘flexibility’ as the business rescue regime being more tailored and being applicable to both small and large companies. This shows that business rescue is aimed to be more wide-reaching and accessible than judicial management. The immediate protection (from claims of creditors) offered to companies under business rescue was also considered to be a reason why business rescue is more advantageous than judicial management.

Another reason was that business rescue proceedings seem to be more user-friendly and easier than judicial management, which was “legally top heavy” and not “focused on commercially rehabilitating a company”. However, the fact that the practitioner is an agent of the court and can bind people to a plan is a reason that business rescue is preferable to judicial management. This allows for change to be effected efficiently. Lastly, it was noted that business rescue (and the protection it offers the company) affords the company, management team and practitioner an opportunity to look inwards, while, judicial management compelled the company to have an external focus (forcing the company to focus on the claims of creditors and other claimants). This reflects the business rescue regime’s focus on rehabilitation and rescue of the company as the main objective.

2. Financial distress and voluntary business rescue:

The majority of participants felt that the assessment of six months for the consideration of whether the company is in financial distress is adequate. Only one participant disagreed with this and felt that, in the specific circumstances in South Africa, the time allocated was inadequate. One of the participants who felt that six months was adequate, stated that this period was often too long and that this period should not be longer because it required looking forward and trying to anticipate the circumstances the company may face in the future. Some practitioners observed that, practically, boards do not make such an assessment and, if they did, there would be greater rates of success for business rescue as the process would start sooner and the practitioner "would have more options available". It was also noted that boards do not act on indications of financial distress and "live in denial" and that the requirement that the company notify its creditors as to why it has not entered into business rescue when it is in financial distress has never been adhered to. This shows that, despite the intentions of the Companies Act and the provisions put in place to meet the objectives, it is (in part) these practical issues that are standing in the way of the success of the regime.

When asked why directors might delay applying for a voluntary business rescue, practitioners cited many reasons: some practitioners remarked that the management, who had driven the company into financial distress, felt they had the ability to rescue it from this distress. Others cited that management may be uninformed, uneducated or "don't know unless the lawyer mentions it". This shows that management lack appropriate knowledge and this may be an obstacle to the success of the regime at times. This may be a result of a lack of awareness, which if increased, will enhance the success rate. A greater awareness of the availability of business rescue to companies may increase the number of cases of successful business rescue. Practitioners also explained that management may delay the initiation of business rescue because it is not in their interests to lose control and be governed by a practitioner.

Another practitioner pointed out that filing for business rescue may trigger personal liabilities for members of management, particularly those who had signed surety. Other practitioners noted that management may be in denial or may be fearful of the unknown. The potential negative effect on management's reputation and potential negative publicity was also cited by some practitioners as a potential reason which indicates the perception that the company would be tainted forever. A practitioner, however, commented that stigmatisation was a result of lack of knowledge, while another explained that there is still a culture of business rescue being akin to liquidation and that it was still seen in a negative light. In this regard, another practitioner suggested that education would be helpful in rectifying the problem.

A few practitioners explained that, if companies came into business rescue earlier, it would be easier and would lead to a greater chance of saving these companies. One practitioner commented that business rescue "may have the unintended consequence of getting companies to work on problems earlier", which, considering an earlier start to a rescue increasing its chances of success, will improve the rate of success of the regime.

3. Court judgements:

Consistent court judgements as a factor influencing the success of business rescue were generally considered to be of importance by practitioners. One practitioner stated, as a reason, that “you have to know all the rules”. Another practitioner commented that there are “too few” court judgements and that there would be a significant influence “but there isn’t enough precedent”.

Generally, practitioners felt that there have been some good judgements and some bad ones, where some provide clarity and some have negative influences. Courts clear up the grey areas which arise as a result of the legislation being difficult to interpret. The view of one practitioner was that the court itself had not correctly interpreted the consideration of the requirement that the business rescue should not leave creditors worse off than liquidation, while another practitioner observed that different courts have reached different conclusions (regarding the interpretation of the Act) and that this has created uncertainty. However, one practitioner explained that, despite some judgements currently having a detrimental effect, as time goes by, there will be more consistent judgements. This will help to “shape and form otherwise ambiguous or conflicting aspects”.

It is believed that court judgements are already becoming “more robust” and that some of these judgements have been “a big help”. However, another practitioner noted that the judgements had not had a huge influence to date but that there would be increasing influence of legal precedent going forward. One practitioner explained that the Companies Act “envisages dedicated business rescue courts and that hasn’t happened”. However, another practitioner expressed the view that the courts are currently supportive of business rescue and they do a “good job of preventing unfounded attempts”. This shows the importance and effect of court judgements and the expectation that they will play an increasing role in the business rescue regime.

4. International provisions:

Practitioners did not consider the alignment of South African business rescue provisions with provisions of other jurisdictions to be of high importance. This suggests that the cohesion between South African business rescue provisions and international provisions has a minimal bearing on the success of the regime.

When asked whether a rescue regime that allows management to develop the plan without the appointment of a practitioner (such as is the case in the U.S.A.) will function effectively in South Africa, some practitioners pointed out that this depended on the company and its management, while one practitioner said that this will not function effectively in South Africa. One practitioner (who believed the effective functioning of such a regime is dependent on the quality of management) stated that “if you make that a blanket-availability in South Africa, it will fail”. A few practitioners felt that it will not function effectively because management are sometimes the problem, while one stated that “there has to be an external perspective because management is so sucked into the business”. It was also stated that “generally, the same people that got the business into trouble are seldom the people to get it out of trouble.”

Some practitioners commented on the current corporate rescue regime in the U.S.A. citing that the U.S.A courts “only allow the company [itself] to resolve its issues until the creditors complain”, while another explained that it is “difficult for management to develop a plan without an external, independent perspective” and that, in the U.S.A., the external perspective comes from the court. This shows that there was generally little support for a regime that allows management to develop the business rescue plan. One practitioner pointed out that it may be a misconception to think that management develop the plan themselves and said that they actually outsource this at great expense.

5. Creditors and funding:

The majority of participants stated that, in their experience, creditors were generally willing to accept a business rescue plan and cooperate with its implementation. Only one participant felt that this was not the case. This participant stated that the practitioner has to prove to the creditors that the business rescue can work and that the practitioner must work with them to win them over. Another participant specified that creditors with no security and creditors who were not reinsured were willing, while banks that have credit guarantees are generally less willing. A different participant who had experienced willingness by creditors to cooperate, also explained that there was “a lot of negotiation” and believed that the only way to encourage creditor cooperation is “through education and making them a part of the process”.

Creditors generally seem to be supportive of business rescue. One other participant pointed out the difference in behaviour of different creditors. This participant stated that creditors with security are “inclined to liquidate and cut their losses” but that trade creditors and employees were “more willing to speculate because they have nothing to lose”. Creditors are believed to be more cooperative when there is communication and transparency. Another practitioner also emphasised the importance of the relationship of trust between the practitioner and creditors.

Some practitioners noted that while funding is important, it is rarely available from shareholders. Participants pointed out the lack of the post-commencement funding market in South Africa. One interviewee stated that “distressed companies can’t find money for good reason. Our capital markets are too thin. We are not creative enough in our working capital structure.” In the experience of the participants of this paper, it was established that there is a difficulty in obtaining funding during and after the business rescue because the business being rescued is “perceived as a huge risk for funders” because of its financial distress and potential inability for the lender to recover all funds and because there is a lack of a post-commencement finance market in South Africa. A participant stated that “finding post-commencement funding is a key determinant of success”. One interviewee commented that “the U.S.A. has a very deep market and South Africans should study this market”.

The problem created by the difficulty and delay in obtaining funding was summarised by a participant who stated that “by the time you get the funding, you might sit with a dead patient”. It was also stated that obtaining funding is easier where there are assets which can be used as security. If a company were to go into business rescue without consultation, all funding would dry up and security-ships would be triggered. This would be because of the perception of additional risk, due to the lack of involvement and understanding by creditors. Other financing solutions could be explored but, while it may be easier to obtain funding after business rescue, the company may still be “tainted forever”. Funding thus has a key role to play in the success of the rescue, although is difficult to obtain.

CONCLUSION:

Given the important role that a well-functioning business rescue regime plays in a healthy economy, the state of the South African economy currently (low growth and high unemployment) and the current low level of success (as identified by the CIPC), this paper has highlighted that it is absolutely imperative, now more than ever before, to understand some of the key issues that may be hindering the current rate of success of business rescue practices in South Africa. Further, it is vital that we understand the key issues that may be encumbering the current rate of success of the regime, to provide companies in need of rescue a fighting chance. This paper has provided key insight into the practice of business rescue from the point of view of practitioners and has thereby provided an understanding of some of the shortcomings in the current practice, which can then be used as areas for potential improvement in this regard.

There are several practical issues impeding the success of the current business rescue regime which need to be explored. This paper shows that while business rescue seems to be an improvement on its precursor, judicial management, there are practical issues that may impede its ability to succeed. The first item considered by this paper was that companies, through their directors, do not always apply (voluntarily) for business rescue timeously and at the first sign of distress. An earlier start to the rescue would improve its chances of success. This paper has also shown that, for business rescue to succeed, it is imperative that the warning signs of financial distress are recognised and that these are acted upon promptly. The lack of prompt action currently may be an obstruction to the regime.

Court judgements have an important role to play in business rescue but seemingly this paper establishes that inconsistent court judgements have hindered the regime. The need for a dedicated, specialist court for business rescue may address this current hindrance and would facilitate a sound legal precedent in business rescue cases going forward. Interestingly, it is also found that the cohesion between the South African business rescue provisions and the provisions of corporate rescue regimes in other jurisdictions are not considered to be important by practitioners (and are thus not considered to be a limitation to the regime). However, when probed, practitioners cited that the provisions of other regimes would not function effectively in South Africa due to the lack of this specialist court needed.

Lastly, there seems to be a lack of availability of post-commencement financing in South Africa, which, despite the superior priority given to post-commencement financiers by the Act, makes it difficult for a distressed company to find the financing it needs to rescue itself. Funding is imperative to the success of a corporate rescue and the lack thereof is a significant stumbling block for any business rescue. The findings also establish that creditors are generally supportive of business rescue plans when they are involved in the process. While times of distress may allow creditors to make additional demands, the availability of financing is imperative to the success of the rescue.

FURTHER RESEARCH:

This paper is limited to the success of the South African business regime, as legislated by the Companies Act and practitioners involved in facilitating this process. While many studies have been undertaken comparing the South African business rescue regime to corporate rescue regimes of other jurisdictions, this study (and those studies) could be expanded to include the views of practitioners from these other jurisdictions, in light of the differences noted between the various regimes. Comparisons could also be made of practical difficulties faced in different jurisdictions and an analysis can be undertaken to evaluate whether certain difficulties are more prevalent in developing countries. This paper is further limited to business rescue proceedings that have commenced before 30 June 2015. A future study could be conducted to evaluate whether the difficulties and issues identified above (as impediments to the current business rescue regime) persist as the regime matures, especially as the post-commencement funding market in South Africa is given a chance to develop. Lastly, this paper also does not extensively examine the difference between business rescue and liquidation. The ability of the company to choose business rescue or liquidation when it is in financial distress could be examined further by future research, as well as the impact of business rescue in different industries.

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APPENDIX 1: INTERVIEW AGENDA

The following is a list of the questions that were asked of practitioners participating in the study. Participants were informed of the purpose of the study at the start of each interview and were informed that they did not need to answer questions they did not wish to answer.

Short questions

Please answer with Yes/No and elaborate wherever possible.

1. The objective of business rescue is to rehabilitate businesses that are in financial distress. Do you believe that these proceedings in fact meet this intended objective?
2. Do you think that the assessment of six months for the consideration of whether the company is in 'financial distress' is adequate?
3. In your experience, has business rescue truly adequately balanced the rights and interests of all stakeholders?
4. In your opinion, is the power granted to employees and a single shareholder too great?
5. Do you think that business rescues are generally successful?
6. Do you think that judicial management was an appropriate and effective corporate rescue procedure?
7. Without business rescue, do you believe there would be unnecessary liquidations?
8. In your experience, have creditors generally been willing to accept a business rescue plan and cooperate with its implementation?
9. The Companies Act (2008) only allows 25 days for the development of a business rescue plan. Do you think that there should be a longer period available in which to develop a business rescue plan?

Ranking question

10. Please rank each of the following factors influencing the success of business rescue proceedings on a scale of 1 to 5 (where 1 is barely influential and 5 is highly influential):

Potentially influencing factor	Rank from 1 – 5
Experience of the practitioner in conducting business rescue proceedings	
Qualification of the practitioner as the director of business rescue proceedings	
Relationship of trust between practitioner and management as a means of facilitating actions aimed at rescuing the company	
A comprehensive business rescue plan which will be used to rescue the company	
Creative strategies through which to rescue the business	
Funding from shareholders to support the company and assist with its rehabilitation	

Consistent court judgements on matters relating to business rescue	
Ability to source external funding (other than from shareholders) to be used to rehabilitate the company	
Cohesion between South African business rescue provisions and international provisions	
An extended time for the preparation of a business rescue plan	
Support of trade unions and employees in developing a business rescue plan	

Longer answer questions

11. What, in your opinion, constitutes success as far as business rescue proceedings are concerned?

12. Comparing the current business rescue regime to judicial management, which one do you think is more beneficial and why?

13. What are your views on the preparation of a business rescue plan?

14. In your experience, what are some of the difficulties you have come across in developing business rescue plans?

15. How does the relationship between the practitioner and management affect the prospects of the company's rescue?

16. Do you think that business rescue practitioners are generally adequately qualified to conduct business rescue proceedings? If not, are there any requirements you would like to have introduced into the criteria for qualifying as a business rescue practitioner?

17. What influence have court judgements on matters relating to business rescue had on the success of the regime?

18. Do you expect the success rate of business rescue proceedings to improve? What motivates this opinion?

19. In your experience, how easily have companies placed under business rescue been able to obtain funding, during or after the business rescue proceedings?

20. In your opinion, why might directors of a company delay applying for voluntary business rescue?

21. Certain other jurisdictions allow management to develop a rescue plan without appointing a practitioner. In your opinion, would this practice function effectively in South Africa? Please elaborate.

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AUD010 **BEST CORPORATE GOVERNANCE PRACTICES OF SELECTED CONGREGATIONS IN THE FREE STATE**

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ABSTRACT:
A decline in church membership, secularisation as well as wide-ranging scandals that plague the church, are to name but a few of the challenges that threaten the financial sustainability of some churches in South Africa. The root of many of these challenges can be traced back to the lack of implementing sound corporate governance principles. The nature, size and form of incorporation are often preserved by churches to substantiate their lack of implementing sound corporate governance principles. There is however increased demand for *all types of organisations*, irrespective of the history, role, nature and size to illustrate sound corporate governance principles.

The purpose of this paper is to investigate the extent to which a selected sample of churches from the Dutch Reformed Church (DRC) and the Apostolic Faith Mission Church (AFM) in the Free State province, in South Africa, implement *sound corporate governance principles.* The data was gathered by means of semi-structured interviews that have been developed based on the principles of the King reports.

Key words: Corporate Governance, King Report, Principles, Dutch Reformed Church, Apostolic Faith Mission

INTRODUCTION

There is an unprecedented interest in the declining membership of churches (Erasmus et al., 2009; Oosthuizen, 2014: 7; Hofmeyr, 2013: 17; Niemandt, 2013: 9). One of the mainstream churches in South Africa is reportedly losing a significant number of members, allegedly more than 20 000 members per year (Janse van Rensburg, 2013: 17; De Villiers, 2012: 10; Vlok, 2013: 22,24; Mailovich, 2015: 7). The decline in membership is increasingly ascribed to the negative impact of secularisation (Hodgkinson,1990: 290; Venter, 2011: 10). Scholars affirm that secularisation is conceived as an erosion in the level of religious commitment, which causes the church to lose its meaning and power to influence a society and that the effect thereof is evident in the decline of churches' members (Watson et al., 2008: 174; Snyman, 2009: 5). As church membership is often regarded as the quantitative measure of "success" for churches, the decline in membership alleviate the concerns in respect of the financial sustainability of some churches (Strauss, 2013: 6; Hanekom, 2014: 3; Oosthuizen, 2014: 7; Joubert, 2011: 2; Hugo, 2007: 11; Snyman, 2009: 5).

Many scholars are of the viewpoint that the church will play an extraordinary role in South Africa in the future, despite the unremitting prognosis of fading into insignificance due to the abovementioned challenges (Inauen et al., 2010: 39; Hanekom, 2014: 3). There is widespread evidence in media reports, as well as in studies undertaken by scholars, that the church is providing a vast portion of social services and is playing an indispensable role in the social development of South Africa (Koegelenberg, 2003: 10 ; Krige, 2007: 2; Hendriks et al., 2004: 380; Jonker-Bryce, 2011: 2; Claassen, 2009: 16; Mancotywa, 2010: 14; De Gruchy et al., 2008: 209; Swart, 2005: 22). The recognition of the continued relevance of religion has reawakened interest in this subject and the dynamics of churches and the interplay of religion within the larger society reasserts itself as a prime topic for scholarly research (Inauen et al., 2010: 39).

PROBLEM STATEMENT AND AIM

As soon as churches have a significant presence and influence in their community, stakeholders may take on a role of encouraging and demanding the illustration of sound corporate governance principles (Hall, 2002; Floch, 2004: 4; Greenlee et al., 2007: 691; Waddock, 2004: 3; Rossouw and Van Vuuren, 2010: 37).

There have been evidence in media reports and by scholars on the lack of churches to implement sound corporate governance principles (Jansen, 2010: 12; Venter, 2012: 13; Prince, 2008: 5; Feni, 2007: 6; Jansen van Rensburg, 2015: 1; Elson et al., 2007: 122).

The purpose of this paper is to investigate the extent to which selected churches implement sound corporate governance principles. The results of this study could be used as building blocks by churches to improve on their implementation of corporate governance principles. The implementation of sound corporate governance principles will ensure the sustainability of churches, as well as the sustainable involvement in social services.

CORPORATE GOVERNANCE

The recurring views from scholars that corporate governance was developed mainly for the corporate sector (Warren, 2003: 54; Clarke, 2007: 11; Claessens, 2003) ignited a debate on the relevance of corporate governance for other types of organisations, for example non-profit organisations and churches (Bradshaw et al., 2007: 3; Hendricks and Wyngaard, 2010: 104; Nordberg, 2011: 216; Claessens, 2003; Alexander and Weiner, 1998: 223; Nezhina and Brudney, 2009: 275; Barber, 2007: 753). While the argument of the development of corporate governance specifically for the corporate sector is certainly legitimate, Nordberg (2011: 191) states that the implementation of corporate governance principles should be beyond organisations. Jordan (2008: 7) attests to this argument and states that governance was not created exclusively for any organisation. The corporate governance guidelines that have developed internationally and in South Africa target all types of organisations. The new King IV report underline the importance of corporate governance principles to other entities as it is made more accessible to “other types” of organisations, where specific supplements are included in the report to make the recommendations more accessible to organisations. Corporate governance relate to principles which are recommended *to be adopted by all organisations*, irrespective of size and form and whether it is a corporate entity or a non-profit organisation (Jordan, 2008: 7; IoDSA, 2002: 2; Le Roux, 2010: 9).

RESEARCH METHODOLOGY

Population and sampling

The focus of the study was on the two largest Afrikaans Christian denominations in South Africa, namely the Dutch Reformed Church (hereafter DRC) and the Apostolic Faith Mission (hereafter AFM). Congregations from these two denominations were selected with a specific focus on the geographical area of one of the nine provinces in South Africa, namely the Free State province.

Several challenges were encountered to determine the population, and subsequently a representative sample of congregations. One of these challenges related to the available statistics on the size of the church in South Africa. Churches are included in the scope of the non-profit sector. The statistics are more readily available for the sector as a whole, opposed to specific information available on churches. In order to address some of the practical problems, extensive consultation was undertaken by the author among leaders, various role-players as well as the chairpersons from the regional offices of the two selected denominations, namely from the Free State Synod office of the DRC and the Free State Regional Forum of the AFM. In addition, information obtained from the official websites of the two respective denominations was used to determine a population of the congregations.

After the mentioned consultation processes, a joint decision was made to include *five churches* from each denomination. In order to ensure that a representative sample was selected, the decision was taken to include two large, two medium and one small congregation from each denomination. There is no measure for what constitute a large or small congregation and the selection was made based on the relative size of these congregations when compared to other congregations within the Free State region, as well as after the consultation with the chairpersons of the regional offices, leaders and role-players from the two denominations.

Data collection method: interviews

The semi-structured interview contained some open-ended and closed ended questions. The King Reports are generally accepted as the source document in South Africa of what constitutes sound governance (IoDSA, 2013: 3). The King reports have put South Africa on the map and sent a strong message to the world about the manner in which South Africa does business (Business Ethics Direct, 2002: 1 as cited by Marx, 2009: 186).The recommendations in King III about best practices in corporate governance are applicable *to all entities*, regardless of the manner and form of incorporation or establishment and whether in the public, private or non-profit sectors (KPMG, 2012: 17; Crous, 2012: 111; IoDSA, 2009b: 16). Therefore the corporate governance principles from the King III report have been used as the applicable governance framework in this study. As the study was completed before the release of the King IV report (towards the latter part of 2016) the principles from the King III report have been used in the interview schedules.

In the preparation of the interview schedule, extensive consultation was undertaken by the author among role-players at the DRC Synod office and the AFM Free State Region. The DRC *Church Order* and the AFM *Constitution*, that contain guidelines for the governance structures, as well the governing of the two respective denominations, have been incorporated into the interview schedules. The interview schedules were also peer-reviewed by scholars, academics, the head of the Synod office of the DRC, the chairperson of the Regional leadership Forum of the AFM, as well as several church leaders from the denominations, to ensure that it reflects the most important elements from the King III Report, taking cognisance of the governance structures of the selected denominations.

Interviewees

In the selection of the interviewees, preference was given to key informants who, on account of their position or experience, have more information than the regular group members and are better able to articulate this information (Welman and Kruger, 1999: 197). The following interviewees were selected from each of the congregations:

1. Minister/pastor;
2. Chairperson of the governing board, if not the same person as the minister/pastor; and
3. Scribe/Treasurer.

Depending on the established governing structures of a selected congregation, there have not always been conformity with regards to the number of interviewees selected per congregation. The reason is that in some congregations, the minister or pastor also serves as the chairperson of the governing board. In these congregations, only two interviewees were interviewed – namely, the minister or pastor (which is also the chairperson) and the scribe or treasurer. A total of 23 interviewees have been interviewed.

EMPIRICAL FINDINGS

The interview schedule consisted of several divisions of which many are consistent with the governance elements of the King III report. The empirical results are presented under these respective divisions.

DIVISION A: GOVERNING BOARD

The King III Report states that the governing board is the focal point and custodian of corporate governance (principle 2.1) (IoDSA, 2009a: 21). Several aspects with regards to the governing board have been addressed:

Size of the Governing Board

King III states that when determining the number of directors to serve on the board, the collective knowledge, skills, experience and resources should be considered (principle 2.18, subsection 70). It, however, states as a minimum that there should be two executive directors serving on the board, one being the chief executive officer and one being a board member that is responsible for the finances (IoDSA, 2009b: 39). The "chief executive officer" for the purposes of this study would be the minister or pastor of the congregation.

As presented in table 1 below, all the governing boards consist of more than two members. All the congregations have a member on the governing board that takes responsibility for the finances. This is in line with the recommendations from King III about the minimum required directors that should serve on the governing board.

The size of the governing boards for the five respective congregations, not presented in any specific order, are as follows (C1 represent the first congregation, C2 the second congregation etc.):

Table 1: Average size of the governing board

	Congregations					
	C 1	**C2**	**C3**	**C4**	**C5**	**Average size**
Denomination	**Number of board members**					
DRC	12	29	17	38	13	**22**
AFM	10	8	12	10	9	**9**
Total average size of governing board						**16**

Based on the results presented in the table, the size of the governing board for the DRC is notably higher than for AFM. One of the reasons is that the Church Order of the DRC suggests that the traditional governing board should consist of all the elders and deacons of the respective church wards (or blocks) in the congregation. The congregations are, however, allowed to amend this. Two of the five DRC congregations (40%) have governing boards based on this recommendation from the Church Order. These are the two congregations indicated as C2 and C4, which have the largest governing boards compared to the other DRC congregations. The remaining three DRC congregations (60%), indicated as C1, C3 and C 5, do not follow this guideline and appoint governing board members based on responsibilities and specific, allocated portfolios.

The two congregations with the traditional governing boards (C2 and C4) both indicated that the size of this governing board is not an effective means for decision-making. They stated that the governing boards function strongly as a means of communication to the members of the congregation rather than to be engaged in the direction, strategy and decision-making of the congregation.

The interviewees were asked to comment on whether they regard the current size of their governing board to be the optimal size and whether they would prefer either a smaller or larger governing board. Eight interviewees (35%) are of the opinion that the current size of their governing board is the optimal size for a governing board to function effectively. Seven of the interviewees (30%) stated that a larger board size than the existing board size will be optimal where the remaining eight interviewees (35%) stated that they would prefer a smaller board size. Overall, it therefore appears that the size of the governing boards is effective for decision-making.

Composition of the Governing Board

King III recommends that the governing board should comprise a balance of power, with a majority of non-executive members (principle 2.18) (IoDSA, 2009a: 25). It further states that the majority of non-executive members should be independent. The explanation on a non-executive and independent director falls outside the scope of this paper.

For purposes of this part of the analysis, it should be noted that a pre-requisite for a person to serve on the governing board is that he/she should be a member of the congregation. Church membership cannot be expressed in terms of a percentage influence or shareholding, which poses some challenges in applying the criteria of “independence” to governing board members. To determine whether governing board members are independent or not was not practically feasible. The focus was therefore placed on the balance of executive and non-executive members.

The following is a summary of the total average composition of the governing boards of the two denominations, split only between executive and non-executive board members, based on the above explanation:

Table 2: Composition of the governing boards per denomination

	Average composition of governing board		**Total composition**
	Non-executive members	**Executive members**	
Denomination	**Percentage**		
DRC	84%	16%	100%
AFM	72%	28%	100%

From the abovementioned, it is evident that the *average* governing board for both denominations consist of a majority of “non-executive” members as explained above. The following is a summary of the non-executive and executive members serving on the governing board for the respective congregations:

Table 3: Composition of governing boards per congregation

	Actual composition of governing board		Total congregations
	Majority (>50%) non-executive members	(<=50%) non-executive members	
Denomination	**Number of congregations**		
DRC	5	0	5
AFM	3	2	5
Total	**8**	**2**	**10**

Eight of the ten congregations (80%) have a majority of non-executive members serving on the governing board. Two of the congregations (20%) do not have a majority of non-executive members serving on the governing board. It should be noted that these two congregations have an equal balance, exactly 50%, of both executive and non-executive members serving on the governing board. Both these two congregations are from the AFM. These two congregations indicated that the presence of executive members contribute to more effective and efficient decision making. All the DRC congregations have a majority of non-executive members. This, therefore, appears to be in line with the recommendations from King III that boards should consist of a majority of non-executive members.

Chairperson of the Governing Board

King III recommends that the governing board should elect an independent, non-executive chairperson (principle 2.16) (IoDSA, 2009a: 24). Based on the discussion in the preceding section, governing board members would not necessarily qualify as “independent” board members. The following is a summary of chairpersons:

Table 4: Summary of individuals serving as chairpersons

	Chairperson of the board		Total
	Minister or pastor	Main elder	
Denomination	**Number of congregations**		
DRC	3	2	**5**
AFM	4	1	**5**
Total	**7**	**3**	**10**
Total %	**70%**	**30%**	**100%**

As presented above, 70% of the congregations have the minister or pastor serving as the chairperson of the board. Therefore, an executive person is the chairperson of the board. 30% of the congregations have a non-executive chairperson. This is an area of improvement for congregations. The minister or pastor is in a management position; responsible for driving operations and having a combined role results in monitoring oneself, opening the door for abuse of position.

The interviewees were asked an open-ended question as to what they regard as the three most important functions of the chairperson of the governing board:

Table 5: Important functions of the chairperson

	Interviewees	
Three most important functions of the chairperson	**Number**	**%**
1. The vision and strategic direction of the congregation;	17	74%
2. To facilitate a meaningful meeting where responsible decisions are made with the engagement of all the members during the meeting; and	17	74%
3. To ensure spiritual development take place in the congregation, incorporating the well-being of the board, the minister or pastor and the personnel.	8	35%

The chairpersons were asked to give their opinions to which extent governing board members share the responsibility with the chairperson in respect of the functions listed above in table 5. Two of the ten chairpersons (20%) of the governing boards raised the concern that the board members do not necessarily share the responsibility of management of the congregation and they revert it back to the chairperson of the governing board.

Period Serving as Board Members

King III recommends that at least one third of non-executive members should rotate on an annual basis (principle 2.18 nr 75) (IoDSA, 2009b: 40). The Church Order and the Constitution for the DRC and the AFM respectively provide broad guidelines to congregations with regards to the period that a board member should serve on the governing board. Congregations can amend these guidelines and follow practises that suit their specific needs. The responses in this section, therefore, reflect the current practises followed by congregations.

Table 6: Prescribed period established

	Prescribed period	
	Yes	**No**
Denomination	**Number of congregations**	
DRC	5	0
AFM	2	3
Total responses	**7**	**3**
Total in population	**10**	**10**
Total percentage	**70%**	**30%**

The congregations that have a prescribed period however indicated that even though they do have these prescribed periods, that the governing board members *do not have to rotate* after this period. The lapse of the prescribed period merely serves as an opportunity for governing board members to either make themselves available for re-election or to voluntary step back as a board member. The discussion in Division B highlight the challenges of congregations to attract (and retain) governing board members. The establishment of a minimum or maximum period for serving of the governing board is regarded by the interviewees as not feasible (or always practical) in the church environment. The challenge to attract governing board members is confirmed later in the paper where the limited involvement of church members has been raised as one of the most significant risks that congregations face.

Meetings of the Governing Board

King III requires that the governing board should at least meet once a quarter (principle 2.1) (IoDSA, 2009b: 29). Nine out of the ten congregations (90%) indicated that their governing board meet once a quarter. The remaining congregation indicated that they meet on a two-monthly basis.

Functions of the Governing Board

The King III Report states that the governing board is responsible for the direction and strategy and should be in effective control of the organisation (principle 2.1) (IoDSA, 2009b: 29,30). The interviewees were asked an open-ended question to identify what they regard as the three most important functions of the governing board. The results of the responses were grouped together and are as follows:

Table 7: Three most important functions of the governing board

	Interviewees	
	Number	**%**
1. Maintaining the spiritual wellbeing of the members of the congregation and the seeking of God's will for the congregation;	15	65%
2. Taking significant financial decisions; and	**9**	39%
3. The casting of the vision for the congregation.	**8**	35%

The most important function of the governing board listed by the interviewees reveals that the church is committed to its religious purpose, as opposed to being focussed on profit.

In this part of the interview, the interviewees were asked to provide their opinion whether the existing governance structures function effectively. Twenty interviewees (87%) indicated that the existing governance structures are effective and three (13%) indicated that the existing governance structures are not working effectively in the congregation. There were two reasons cited by the interviewees on why they deem the governing boards not to be effective. Firstly, two of the interviewees indicated that the large size of the board makes decision-making ineffective. Both these interviewees are from the DRC and added that the congregation are planning to move away from the traditional governing board where deacons and elders automatically serve on the governing board to a smaller structure of board members. Secondly, all three these interviewees indicated that the governing board members, in many instances, do not take up their responsibility of governing the congregation.

In order to ensure an effective functioning board, the governing board members must have an understanding of their responsibilities. King III states that every governing board should have a charter setting out its responsibilities (IoDSA, 2009b: 29). The interviewees were asked to indicate whether the congregation have documented “policies and procedures” that sets out the “modus operandi” of the specific congregation. This would also include the authority levels and the type of decisions that are required that would serve as a “board charter” to assist governing board members in understanding their role and responsibilities.

Four of the congregations (40%) indicated that they have formal, documented policies. One congregation (10%) indicated that they have partially documented policies and procedures. Five of the congregations (50%) indicated that they do not have such policies. This finding supports the lack of the induction process provided to new governing board members where board members’ responsibilities should be communicated. The congregations that do not have formal policies or partially documented policies indicated that the minutes of governing board meeting serve as guidance and a reference for levels of authority and decision-making that would be required.

Many of the congregations do not have a formal “charter” that set out the responsibilities of the governing board members. Some of the congregations indicated that they have certain areas of responsibilities or portfolio’s that they allocate to governing board members. The interviewees indicated that the governing board members are informed on their responsibilities during the induction process of new governing board members. However, as illustrated later in the paper, there are not sufficient induction processes to new governing board members.

The congregations stated that they are compensating for the lack of formal policies by relying on the Church Order and the Constitution for guidance on the responsibilities of the elders and deacons respectively. The five DRC congregations indicated that the new board members will be issued a copy of the Church Order. The five AFM congregations indicated that each congregation should have their own Constitution. This document is, however, general in nature and contain mostly the general guidelines from the AFM Constitution adding on amendments or additional clauses accepted by the specific congregation.

The abovementioned suggest some areas for improvement to congregations in respect of communicating responsibilities and functions to governing board members. Congregations should engage in formal procedures that include, but are not limited to formal induction processes and documented policies.

Finance Function

Governing boards should have an executive member on the board that takes responsibility for the finance function. All ten congregations (100%) have a treasurer or scribe or congregational manager that is taking responsibility for the financial aspects of the congregation. The interviewees indicated that there are no formal qualifications required for this position, but that prior experience in finances or financial background is an important consideration.

The functions of the scribe and treasurer, and the congregational manager, are presented separately as part of this section. The reason is that it does not only represent a difference in the "designation" or the terminology used for these individuals, but the responsibilities of the congregational manager are in many instances broader than the scribe or treasurer.

Table 8: Position of scribe or treasurer or congregational manager

	Position		Total
	Scribe or treasurer	Congregational manager	
Denomination	Number of congregations		
DRC	3	2	**5**
AFM	4	1	**5**
Total	**7**	**3**	**10**

An open-ended question was asked to all the interviewees as to what they regard as the three most important functions of the scribe or treasurer. The results of the responses were grouped together and the three functions cited the most by the interviewees are presented as the three most important functions. The responses of the interviewees of the seven congregations that have a scribe or treasurer (which amount to 15 interviewees) are:

Table 9: Three most important functions of the scribe or treasurer

	Interviewees	
Functions	**Number**	**%**
1. Bookkeeping;	13	80%
2. Management of finances; and	9	60%
3. Administrative responsibilities.	6	40%

The "management of finances" is a very broad function and upon further elaboration provided by the interviewees, it includes, but are not limited to, the comparison of actual versus budgeted expenditure, preparation of payments, receiving of funds and the preparation of financial reports.

Depending on the structures of each congregation as well as the size of the congregation, the functions of the scribe or treasurer might also include some administrative responsibilities (i.e. secretarial work, taking minutes of meetings and preparation of agendas

for meetings). Some of the congregations have a separate bookkeeper (over and above the treasurer) who is responsible for capturing financial information, whereas for some other congregations the capturing of financial information, processing and analysis and interpretation of financial information all resides with the scribe or treasurer.
The congregations that have a congregational manager listed the following as the three most important functions of the said manager:

Table 10: Three most important functions of the congregational manager

	Interviewees	
Functions	**Number**	**%**
1. Management of finances;	8	100%
2. Personnel matters; and	4	50%
3. Operational matters (including maintenance of systems and procedures).	4	50%

If the results of table 9 and 10 are compared, it is found that the functions of the congregational manager are broader than the responsibilities of the scribe or treasurer. Based on the discussion it, therefore, appears that the congregations have individuals that take responsibility for the financial aspects of their congregations and it appear that the recommendations of the King Report are met.

Company Secretary

King III recommends that the governing board should be assisted by a suitably qualified and experienced “company secretary“ (principle 2.21) (IoDSA, 2009b: 43). Based on the results, all ten congregations have individuals that take responsibility for the role as “company secretary” of their congregations. The five AFM congregations (50%) have a separate function as a company secretary. The five DRC congregations (50%) do not have a separate function as “company secretary” as these functions are usually performed by the scribe. It, therefore, appears that the recommendations of the King Report are met.

Compliance with the Church Order and Constitution

King III states that the governing board should ensure compliance with the applicable laws and regulations and that a framework should exist to promote compliance (IoDSA, 2009b: 41-43). For the purposes of this section, the Church Order of the DRC and the Constitution of the AFM respectively would qualify as some of the most important “regulations” that these congregations should comply with.
These “regulations” are, however, not enforced by government or any other regulatory body and serve only as broad guidelines that the congregations should follow, as determined by the denominational General Synod or the AFM Head office. Each congregation functions, to a large extent, autonomously. The interviewees were posed a question, from which they could select multiple answers, on who bears the responsibility to ensure compliance with the Church Order and the Constitution:

Table 11: Responsible parties to ensure compliance

	Interviewees	
Responsible party	**Number**	**%**
Minister or pastor	10	43%
Governing board	6	26%
All parties involved in the management of the congregation, including the governing board, minister or pastor, scribe or treasurer/manager and the secretary	5	22%
Shared responsibility of the governing board and minister or pastor	2	9%

Ten interviewees indicated that the minister or pastor is carrying the responsibility as he has the most knowledge on the content of these documents. This supplements the concerns raised by the chairpersons of the governing board that responsibility is not always shared amongst the governing board members and this is an area of improvement.

DIVISION B: APPOINTMENT AND DISMISSAL PROCESSES

King III recommends that new board members be appointed through a formal process (principle 2.19) (IoDSA, 2009b: 40). The recommendation also holds that there should be a formal induction process and ongoing training of governing board members. This section discusses the appointment and dismissal of governing board members and the minister or pastor separately.

Appointment and Dismissal of Governing Board Members

In all ten congregations (100%), the responsibility to appoint governing board members resides with the governing board as a whole. The governing boards receive nominations for new board members from existing church members, elders, deacons or existing governing board members.

The interviewees were asked whether they have minimum requirements for board members before they could serve on the governing board. All ten congregations (100%) indicated that they follow the broad guidelines of the Church Order and the Constitution respectively. The general guidelines of the Church Order provide that governing board members should either be full-time ministers of the Word, elders or deacons (General Synod: Church Order, 2007: Art 26). The interviewees indicated that they rely on guidance from Bible scripture for the selection of elders and deacons. The scope of the paper does not allow the engagement in the detail of the Bible scripture. It could however be stated (as explained by the interviewees) that the criteria for an elder centres around spiritual discernment, care and guidance and for the deacon around the ministry of practical service (General Synod: Church Order, 2007: Art 15-17). The Church Order further states that members should be in agreement with the confessions of the church.

The general guidelines of the Constitution of the AFM stipulate that governing board members should be registered members of the congregation, baptised, actively involved in activities of the congregation and must pay his/her tithes to the congregation. In addition, it states that each congregation shall determine its own specific membership qualifications and the policy should be approved by the Regional Leadership forum (AFM, 2008: 2.4.1).

To complement the guidelines from the Church Order and the Constitution, some congregations indicated that they have additional criteria that are very specific to the congregation, which it considers in the appointment of a new member on the governing board. These criteria listed by the interviewees include:

1. Age, to ensure a well-balanced governing board representing the different age groups within the congregation;
2. Business knowledge; and
3. Managerial skills.

The interviewees indicated that several challenges are faced to attract new governing board members. The congregations are reliant upon volunteering church members and are confronted with the challenge that the ability to attract knowledgeable and experienced governing board members depends on the willingness of church members to serve on the governing board. The limited involvement of church members has been raised by the interviewees as one of the most significant risks that the church face (see later in the paper). Therefore, it follows that many of the congregations do not have additional, special criteria for prospective board members (over and above the general guidelines in the Church Order or the Constitution mentioned above) due to the small number of members that are willing to serve as governing board members. Additional criteria would significantly reduce the already small "pool" of available volunteering governing board members.

With regards to the dismissal of governing board members, the interviewees were asked an open-ended question to explain the process to be followed in the event of a dismissal of a governing board member. All ten congregations (100%) indicated that they would first consider possible reconciliation and restoration, as prescribed in Bible scripture before considering the removal of a board member. If the process of reconciliation proves to be unsuccessful, the DRC indicated that they would follow the disciplinary hearing process as prescribed in the Church Order. This process involves that the circuit assists in the process of dismissal. The AFM churches indicated that the disciplinary hearing process as prescribed in the AFM Constitution would be followed and would involve a formal investigation from Head office.

Induction Process for Governing Board Members

King III recommends that there should be an induction and ongoing training of board members (IoDSA, 2009b: 42). Only one congregation (10%) has a formal induction process for the training of new board members. The remaining nine congregations (90%) follow an informal process where a briefing is provided by the chairperson to the new governing board members. In addition, the new members are exposed to "in-service training" (or more commonly referred to as "on the job" training). The lack of an induction process for new governing board members, coupled with the lack of a board charter setting out the responsibilities of governing board members is an area of improvement for churches.

Appointment and Dismissal of Minister or Pastor

All ten congregations (100%) indicated that the governing board is responsible for the appointment of a new minister or pastor. All ten congregations (100%) indicated that the removal of a minister or pastor is not done by the governing board. The five DRC's indicated that the Circuit and the Regional Synod would assist in the process of removal. The five AFM churches indicated that the AFM head office would have direct involvement in dismissal processes. The interviewees indicated that the same process for the removal of the governing board members as discussed in the previous section would be used in the event of the dismissal of a minister or pastor.

DIVISION C: PERFORMANCE EVALUATION

King III recommends that there should be a performance assessment of board members on an annual basis (principle 2.22) (IoDSA, 2009b: 44). The assessment of the board's performance is also an important element to ensure that board members act responsibly.

Performance Evaluation of the Minister or Pastor

Only one of the congregations (10%) has a formal performance evaluation of the minister or pastor. This congregation indicated that the performance evaluation also has an impact on the remuneration of the minister or pastor. The remaining nine congregations (90%) do not have performance evaluation processes. During the interviews, the following were the main reasons cited by the interviewees for the lack of performance evaluation instruments for pastors/ministers:

Table 12: Reasons for lack of performance evaluation

	Interviewees	
Reasons	**Number**	**%**
1. Preference given to supervision and open communication channel between governing board and the pastor/minister;	11	52%
2. Lack of available performance instruments for the broader church; and	8	38%
3. Lack of knowledge on the process of performance evaluation.	4	19%

The lack of performance evaluation is regarded as a significant area of improvement for churches. There appears to be, in general, a lack of available performance evaluation tools for churches. This could possibly be an area for future research.

Performance evaluation of governing board members

None of the congregations (0%) conduct a performance evaluation of board members who are not full-time employees of the congregation. The interviewees were of the opinion that the evaluation of the performance of governing board members, who are volunteers, would not be feasible or desirable as they offer their services voluntary.

Even though many congregations view the performance of voluntary governing board members as problematic, it is imperative that governing board members share in the responsibility to govern and effectively manage the congregation.

DIVISION D: REMUNERATION STRUCTURES

King III states that the remuneration of governing board members should be fair and responsible (principle 2.25) (IoDSA, 2009b: 48). All the interviewees responded that none of the board members of the ten congregations, who are not employees of the congregation, receive remuneration or an honorarium.

For all ten congregations (100%), the remuneration of the pastor/minister is determined by the governing board. The five DRC churches receive guidelines from the Synod for remuneration packages of their ministers. These guidelines are used by all five DRC congregations (100%). The interviewees indicated that the guidelines are used as a starting point for determining the packages and that the budget and affordability affect the remuneration packages.

The AFM do not receive any guidelines from Head office or Regional office and every congregation determine their own remuneration structure. Two of the five AFM congregations (40%) have developed their own remuneration structures based on level of seniority, experience and qualifications. The remaining three congregations (60%) use affordability and budget as the primary indicators of remuneration packages.

DIVISION E: REPORTING AND FINANCIAL STATEMENTS

The King III recommendations hold that an organisation should extend its reporting beyond financial matters and that information that is reported should be verified in terms of assurance (i.e. audit assurance) (IoDSA, 2009b: 48-49).

Preparation of Financial Statements

All ten of the congregations (100%) prepare financial statements on an annual basis. The financial statements of all the congregations are prepared on a cash basis. In answering the question on who takes responsibility for the preparation of the financial statements, the interviewees could select multiple answers. The interviewees were, therefore, not limited in their choices and could indicate all relevant parties involved in the preparation of the financial statements. The following is a summary of the parties that are taking responsibility for the preparation of the financial statements:

Table 13: Responsibility for preparation of financial statements

	Responsible party			
	Scribe/ Treasurer/ Manager	Professional Accountant	Chartered Accountant	Other i.e. Full-time bookkeeper/ Secretary
Denomination	**Number of congregations**			
Congregation count	5	2	4	3

The interviewees indicated that the scribe or treasurer/manager would normally take responsibility for the preparation of the financial statements. However, they are in many instances assisted by a professional accountant, registered with the South African Institute of Professional Accountants (SAIPA) or a chartered accountant, registered with the South African Institute of Chartered Accountants (SAICA).

The annual financial statements of all ten congregations (100%) are discussed and approved by the governing board. The ten congregations indicated that the financial statements are not physically distributed to the members of the congregation, but all members have full and free access to the financial statements if requested.

Upon enquiry from the interviewees, as well as after inspecting the annual financial statements, the congregations do not extend their reporting beyond financial matters The disclosure of non-financial information, with specific reference for example to potential risk areas (see discussion later on significant risks that congregations face), is an area of improvement for congregations.

Preparation of Budgets

As part of responsible management of an organisation, responsible management with regards to finances is important. King III recommends that internal controls should be established over financial matters (IoDSA, 2009a: 45). Churches rely on voluntary contributions from their members and due to the nature of churches, the management of available funds and finances, by means of budgets, would be imperative to illustrate and prove responsible management. The analysis of the congregations that prepare budgets on an annual basis is as follows:

Table 14: Preparation of budgets

	Preparation of budgets	
	Yes	**No**
Denomination	**Number of congregations**	
DRC	5	0
AFM	4	1
Total responses	**9**	**1**
Total in population	**10**	**10**
Total %	**90%**	**10%**

It follows that 90% of congregations do prepare annual budgets. The budgets are approved by the governing board in all stances. The comparison of budgeted versus actual results are also presented at the governing board meetings. It, therefore, appears that the congregations, with the exception of one, have adequate management of funds through the use of budgets.

DIVISION F: AUDIT REQUIREMENTS

King III states that external assurance should be provided in respect of the operations of an organisation, ranging from assurance with regards to financial information, risks and sustainability (IoDSA, 2009b: 59-62). During the interviews, it was noted that the interviewees, in many instances, do not understand the distinction between the different types of assurance and other engagements. In addition, the interviewees do not differentiate between an external auditor, independent reviewer and an internal auditor.

There is a very distinct difference in the processes between the DRC and the AFM congregations in the types of services performed on the financial statements. Based on the abovementioned explanation and the responses from the interviewees, the type of services performed on the financial statements are summarised as follows:

Table 15: Services performed on the annual financial statements

	Type of service			
	External audit engagement	**Review engagement**	**Other types of engagements**	**Total**
Denomination	**Number of congregations**			
DRC	0	5	0	**5**
AFM	0	0	5	**5**
Total	**0**	**5**	**5**	**10**

As indicated in the table above, external audit engagements are not performed for any of the congregations. The two denominations are not required in terms of legislation or the Church Order and the Constitution to appoint external auditors. Therefore, it is not mandatory to appoint external auditors. The Church Order provides that the DRC congregations should appoint a reviewer of their financial statements and the Constitution of the AFM stipulates that “internal auditors” should be used (AFM, 2008: Chapter 6,44).

All five DRC congregations indicated that a review engagement is performed on their financial statements. The review assurance is performed in all instances by SAICA members. All five DRC congregations (100%) indicated that the decision in the appointment of the individual or accountant to perform the review engagement is taken by the governing board.

In comparison to the DRC, the AFM congregations appoint designated internal auditors, as prescribed by the Regions and the General Treasurer of the AFM (AFM, 2008: Chapter 6). The AFM congregations are limited in their choices and have to use one of the “internal auditors” as appointed by Head office. These individuals should have sound knowledge of the AFM Constitution. In addition, the Constitution of the AFM state that the 1) qualifications and 2) knowledge of the structure and finances of the church is a pre-requisite in the appointment of an internal auditor.

The “other types of engagements” as presented in the table 15 above, refer specifically to the services performed by the internal auditors for the AFM churches. These “internal auditors” perform agreed-upon procedures, as determined by the General Treasurer of the AFM, on the financial statements. The term is put in inverted commas as these individuals may not in all instances be internal auditors as defined (even though the nature of services performed are internal, audit-related services, see below for explanation).

Based on the reports from the internal auditors of the AFM congregations, the services performed include an overview of the financial statements as well as a review of the minutes of meetings to ensure all decisions taken and expenditure occurred was duly authorised. In addition, a review of processes and controls at the congregation, for example treatment of petty cash, authorisation of expenditure.

Upon enquiry from the interviewees from the DRC on whether the review procedures performed provide any value added service, 11 of the interviewees (92%) affirmed that it did provide value. One interviewee (8%) refrained from answering the question due to a lack of knowledge on this area. The interviewees were asked to elaborate on what they regard as the value added service. Eight of these 11 interviewees (67%) indicated that it is the assurance that it provides that funds are administered properly and responsibly. Two of the above eight interviewees elaborated further by adding that it also assists in identifying risk areas and one interviewee added that it provides some assurance specifically to the finance personnel that the work that they perform, is trustworthy. Three interviewees indicated that the firm assists them with problems on their systems and also assists with communication to synod offices. One interviewee (8%) refrained from answering the question due to a lack of knowledge on this area.

Based on the results presented earlier, one of the AFM congregations did not have internal audit procedures that were performed on their congregation. Upon enquiry from the remaining interviewees from the AFM on whether the internal audit procedures performed provide any value added service, seven (88%) of the interviewees affirmed that it does provide value and one interviewee (12%) indicated that it does not provide any value.

It therefore appears that the congregations have adequate processes in place to ensure that assurance is provided on their financial statements. To increase the awareness on the difference between the different types of assurance engagements would be an area of improvement.

DIVISION G: RISK MANAGEMENT PROCESS

King III requires that the governing board should take the responsibility for risk governance and should continuously assess the risks that it might face. The governance of risk include the assessment, response and the monitor of risks (IoDSA, 2009b: 73).

None of the ten congregations (0%) had a formal risk management process. The interviewees stated that risks were identified on an informal basis by means of the respective governance structures. One of the interviewees noted that they do not act proactively on risks, but usually address risks once they occurred. The lack of a risk management process is an area of improvement for congregations.

The interviewees were asked to select the five most significant risks, from a pre-determined list, that the congregation face. The most significant risks identified by the interviewees are as follows:

Table 16: The five most significant risks

	Interviewees	
Five most significant risks	**Number**	**%**
1. Limited involvement of church members;	21	91%
2. Decrease in members' contributions;	15	65%
3. Decrease in number of members;	8	35%
4. Youth leaving the congregation; and	7	30%
5. The increase in cost exceed the increase in income.	6	26%

The risks raised above evidently have a direct impact on the financial sustainability of congregations. The lack of risk management processes is an area of improvement.

DIVISION H: FINANCIAL SUSTAINABILITY

Throughout the recommendations of the King Report, the importance of the board to consider sustainability practices and the disclosure of sustainability is highlighted (IoDSA, 2009b: 30).

Although most of the focus on sustainability and the reporting of these aspects appear to be on companies in the private sector (see Perrini and Tencati, 2006; Adams et al., 2010: 2; Epstein et al., 2010), the concept applies equally well to all other types of organisations (Eccles and Saltzman, 2011: 60,61), and for the purpose of this paper, churches. Governance is one of the key measures of an organisation's sustainability and is imperative for the achievement of an organisation's long-term objectives (IoDSA, 2013: 5).

Based on the problems and potential challenges with regard to the future sustainability of churches as discussed earlier in the paper, the opinions of the interviewees of the possible risks to the financial sustainability were specifically addressed during the interviews. The dependency of congregations on the voluntary contributions from their members impacts the financial sustainability of congregations. The congregations were largely dependent on the voluntary contributions from members. The congregations indicated that at least 90% of their income consists of voluntary tithes and offerings from their members. The interviewees were asked in the light of the difficult economic conditions, it they have concerns about the decline in the tithes and offerings. Ten of the interviewees (43%) stated that they were concerned about the potential decrease in tithes and offerings from members. Nine of the interviewees (39%) stated that they were not concerned and three interviewees (13%) stated that they were not over-concerned, but only realistic about the potential decline in contributions. The interviewees, however, stated that history has proven that the Lord has always provided and that they believe He will provide for the church in the future. Also refer to discussion below on the interviewees opinions on the sustainability of their congregations and the denominations.

During this part of the interview, the interviewees were asked in the first place, to voice their opinions on the sustainability of their specific congregation. In the second place, their views on the sustainability of their congregation on a regional level (i.e. Free State province) and thirdly on a national level (South Africa) were asked. The interviewees were only allowed to select one option. The results from the interviewees from the DRC and the AFM are presented separately in the table below:

Table 17: Opinion of interviewees on sustainability

	Views on sustainability		
	Sustainable	Concern	Not sustainable
Congregational level	**Number of interviewees**		
DRC	10	1	1
AFM	11	0	0
Total responses	21	1	1
Sample of interviewees	23	23	23
Total %	**91%**	**4%**	**4%**
Denominational level – Free State			
DRC	7	3	2
AFM	11	0	0
Total responses	17	3	2
Sample of interviewees	23	23	23
Total %	**74%**	**13%**	**9%**
Denominational – on a National level (i.e. South Africa)			
DRC	11	1	0
AFM	11	0	0
Total responses	22	1	0
Sample of interviewees	23	23	23
Total %	**96%**	**4%**	**0%**

As is evident from the table, the majority of interviewees were of the opinion that their congregation, as well as their denomination, both at a regional, as well as at a national level, was sustainable. Churches should however focus on the areas for improvement raised thus far with regard to corporate governance to ensure the sustainability of their congregations.

DIVISION I: GOVERNANCE OF STAKEHOLDERS RELATIONS

King III states as part of governing stakeholder there should be transparent and effective communication with stakeholders (IoDSA, 2009b: 103). The interviewees identified the following as the most important stakeholders of the congregation:

Table 18: Stakeholders of the congregations

	Stakeholders					
	Members of the church	**Governing board**	**Minister or pastor**	**Community**	**Free State Synod/ Free State RLF**	**Other**
Denomination	**Number of interviewees**					
DRC	9	2	2	1	1	0
AFM	9	4	2	1	0	0
Total	**18**	**6**	**3**	**2**	**1**	**0**
Total % of interviewees	**78%**	**26%**	**17%**	**9%**	**4%**	**0%**

From the results of the above table, the majority of interviewees (78%) regarded the members of the congregation as the most important stakeholders. Secondly, the governing board; and thirdly, the pastors/ministers of the congregation.

As the members of the church were identified by the majority of the interviewees as the most important stakeholders, the interviewees were asked to explain how they communicate important information to the members. Congregations use diverse methods ranging from Sunday services, newsletters, multimedia, meetings and annual general meetings.

All ten of the congregations (100%) indicated that they primarily use Sunday services to communicate important information to members of the church. All five DRC congregations, as well as one AFM congregation, indicated that they use newsletters (ranging from weekly, to monthly and quarterly newsletters) to communicate information. The newsletters, however, mainly communicate administrative information, for example the program and events of the congregation and do not necessarily focus on the communication of important financial or operational information. Two of the congregations, one DRC and one AFM congregation added that they filter information down via ministry groups that meet on a regular (most of the time on a monthly basis).

None of the ten congregations (0%) have a standard annual general meeting (AGM) with the members of the congregation. The interviewees indicated that the AGM is not regarded as an effective communication tool to the members of the congregation. The interviewees stated that previously the attendance at these meetings was very low and it was not regarded as an effective communication tool to cover a large basis of their members.

DIVISION L: GENERAL

In the conclusion of the interview schedules, a few general open-ended questions were posed to the interviewees. The discussion previously highlighted that some organisations might face challenges with regards to implementing corporate governance principles. These challenges include, but are not limited to, a lack of resources and skills. The interviewees were, in the first place, requested to state what they regard as the biggest stumbling blocks or challenges for implementing some of the recommendations from the King Reports in pursuing good corporate governance (for example using internal audit; establishment of board committees etc.). The interviewees were asked to limit their answer to the three most significant stumbling blocks. All the answers of the interviewees were collated. The table firstly present the three most important stumbling blocks that were cited the most by the interviewees. Thereafter the table include the remaining stumbling blocks given by the interviewees. The following table summarise the responses of the interviewees:

Table 4.32: Challenges for implementing corporate governance principles

	Interviewees	
Challenges	**Number**	**%**
1. Processes and systems that the congregation do implement, are sufficient;	13	57%
2. Lack of knowledge about the King Reports;	10	43%
3. Use of volunteers, resulting in a lack of manpower and capacity;	9	39%
4. Financial burden and cost implications to implement the recommendations;	5	22%
5. Recommendations not necessary as members trust each other;	3	13%
6. Lack of higher authority to "drive" the recommendations; and	1	4%
7. Scared to implement something new.	1	4%

Secondly, the interviewees were asked an open-ended question on whether they would prefer more involvement, in any area, from the General Synod (applicable to the DRC) and Head Office (applicable to the AFM) to the congregation(s). Examples provided ranged from administrative involvement, to leadership, governance or decision-making. All the congregations mentioned that they would not prefer more involvement at an operational level, as the autonomy given to congregations work well. The DRC and the AFM, respectively, function autonomously.

The congregations, as illustrated in the previous paragraph, do not necessarily prefer more involvement from a denominational level. A concern that has, however, been expressed by the interviewees, is the perceived lack of leadership, vision and strategy from a higher, denominational level, provided to the congregations. In comparison, the remaining three AFM congregations in the sample voiced their concerns and frustrations about the lack of guidance and leadership from the geographical regions, as well as from AFM Head office.

The challenges raised, namely the decline in membership, increased secularisation and that some congregations fight for survival is recurrent in the church environment. In addition, the challenges imposed on congregations as a result of decisions taken by leadership at a denominational level, calls for a demonstration of strong and effective leadership – especially from a higher, denominational level. The concerns raised by the interviewees about the lack of leadership with regards to vision and strategy from a denominational level, is an area of improvement for these denominations. The provision of effective and ethical leadership from a denominational level is an area of improvement for churches.

MOST IMPORTANT FINDINGS AND RECOMMENDATIONS

Before the recommendations are presented, cognisance should be taken of the challenges raised by the interviewees in the implementation of the corporate governance principles. Many interviewees raised the lack of knowledge on the King Reports and the lack of resources (both human and financial) as some of the significant challenges. Due to the nature of churches, many of the challenges are unavoidable. Church leaders' awareness and knowledge about the content of the King Report should be improved which should be used to address and overcome some of these challenges.

The findings may be of value to all congregations and not only to congregations that belong to the selected two denominations that form part of the study. This section provides an overview of some of the most important findings from the empirical results which could be used by congregations as areas for improvements.

- There is a lack of segregation between the minister or the pastor and the chairperson of the governing board. This could result in a conflict of interest for the minister or the pastor. It is recommended that congregations separate these positions.

- Several concerns with regards to the functioning of the governing boards have been raised. The concerns revolve around the following:
  i. The perceived lack of governing board members to take up their responsibility in the governance of the congregation;
  ii. The minister or pastor in many instances that take sole responsibility for certain aspects of the congregation;
  iii. The lack of induction and training provided to new and existing governing board members; and
  iv. The lack of "board charters" (over and above the general guidelines contained in the Church Order and the Constitution) to determine the expectations and responsibilities of the governing board members.

The above concerns may result in the governing board members not to be perceived custodians of corporate governance. In order to enable the members of the governing board to take responsibility for the governance, direction and strategy of the organisation and to effectively manage the church, these aspects should be improved on.

- The lack of governing board members to take up their responsibility, is further alleviated by the lack of performance evaluation measures for governing board members. The lack of performance measures can partly be ascribed to the situation that, in many instances, voluntary, non-remunerated members of the church are serving on the governing board. Even though this might impose challenges to measure performance, congregations should however implement measures to gauge the performance of governing board members and to further ensure that they adequately take up their role in the governance of the church.

- The lack of performance evaluation measures for the minister or pastor is an important area of improvement. There should be a consistent and continuous evaluation of performance to ensure that congregations "perform" and excel financially to remain sustainable.

- The lack of risk assessment processes by the congregations is a significant area of improvement. Congregations should not be in a position where they respond reactively to risks. The financial challenges faced by churches should prompt congregations to proactively engage in risk assessment processes to ensure the financial sustainability and well-being of their congregation.

- The leaders' understanding and knowledge about the different levels of assurance that are provided should be improved on. This is important to ensure that an audit expectation gap do not exists.

CONCLUSION

The study provides a valuable background on corporate governance aspects which can be used by several churches, governing boards, church members, researchers and other role-players in the sector. The results of this study could assist congregations in enhancing and improving the implementation of corporate governance principles. It could further assist congregations in maintaining financial sustainability and to take up their rightful place in playing an indispensable role in the provision of social services in South Africa.

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AUD012 **Does Board Diversity Impact Firm Performance?**

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ABSTRACT:

This paper investigates whether a relationship exists between the extent of racial diversity of a firm's board of directors and the firm's performance, in a South African context. A significant objective for firms in the post-Apartheid period has been to obtain diverse racial representation amongst board members. The majority of theoretical and empirical evidence suggests that there are significant benefits to be realised through board diversity. While there are many aspects of good corporate governance, this study examines the impact of board composition specifically, (defined as the percentage representation of Non-White directors on the board) on measures of firm performance; namely return on assets (ROA), return on equity (ROE), and Tobin's Q, using firms listed on the Johannesburg Stock Exchange (JSE). This study used data from 29 companies in 2006 and 2015, and found inconclusive evidence on the relationship between board diversity and firm performance, both at these points in time and over this period of time. The findings may be as a result of the relatively small sample size, the presence of dual-listed companies in the sample and the nature of the performance measures used.

Key words: board diversity; firm performance; corporate governance

INTRODUCTION

The role that Corporate Governance plays within organisations has become increasingly relevant in recent years. Good corporate governance has been found to enhance firm performance and increase shareholder value (Yortt, 2009). A board of directors plays a vital role in steering a company, being responsible for vital tasks including advisory and monitoring roles (Ntim, 2013b; Yortt, 2009). If the board performs its duties effectively, the value of the company should increase (Swartz & Firer, 2005). Consequently, the suitability of the composition of the board has become an increasingly popular topic of discussion.

A major determinant of a board's functional and operational effectiveness and efficiency is the extent to which ethnic and gender diversity exists on the board (Ntim, 2013b; Rhode & Packel, 2010). It has been identified that with increased diversity, companies are more likely to gain access to unique networks, information and human capital. It is also proposed that with increased diversity, governance is improved which results in improved financial performance (Carter, D'Souza, Simkins, & Simpson, 2010). For diversity to occur willingly, companies have to believe that there is a legitimate case for improved financial performance, due to the fact that companies are always looking for ways to be more competitive. Therefore, this study aims to assess whether a business case exists for board diversity (i.e. improved financial performance), or whether it should primarily remain a public policy issue.

This study will be South African focussed due to the fact that South Africa is an emerging economy with a unique history. As a consequence of Apartheid, which saw the systematic oppression of the majority of the population, the economic landscape is vastly different to that of any other country. Thus, the findings of international studies may not be directly applicable to the South African context.

As a result of South Africa's tumultuous history, significant reform policies have been implemented to try and address the severe lack of diversification within the economy. This includes the Employment Equity Act (EEA), the Broad-Based Black Economic Empowerment (BBBEE) Act as well as the King Report on Corporate Governance (The King Report). All these came into effect post-1994 which saw the end of the Apartheid era. Now, 23 years later, it is still unclear whether these reform policies have been successful in their endeavours. Therefore, this report also aims to identify to what extent the goals of these policies have been achieved, relating specifically to board diversity and whether this has influenced firm performance.

A literature review follows, outlining more context over the South African landscape and corporate governance in South Africa. It also includes a review of theoretical and empirical findings relating to board diversity. An explanation of the methodology used for testing the relationship between board diversity and firm performance follows, as well as a discussion of the findings. Recommendations are provided, and limitations to this study and areas for future research are identified. Finally, concluding remarks are provided in the last section.

LITERATURE REVIEW

The board of directors is the group of people in the company who have to provide effective leadership. The King Report states that the board is responsible for corporate governance. They are in effective control of the company and therefore have many responsibilities, including determining the company's strategic directions. Due to this, the board is seen as a very crucial group within an organisation (Ntim, 2013b). The board is also responsible for monitoring executive management, and this role is seen as a vital control within corporate governance (Campbell & Minguez-Vera, 2008; Rossouw, Van der Watt & Rossouw, 2002). Thus, the crucial question of how a board can be most effective is one that has been deliberated often.

The purpose of this literature review is to discuss the benefits that arise from diverse company boards. The review commences with a discussion of the economic landscape in South Africa today. Thereafter a brief discussion on corporate governance practices appears, followed by the advantages and disadvantages of diversity identified from theoretical and empirical evidence. An explanation of critical mass theory as it relates to board racial diversity is also included. Finally, empirical evidence relating to board diversity and firm performance is discussed.

The Economic Landscape of South Africa

Pre-1994, the economic landscape of South Africa was a predominantly White male environment (Ntim, 2013b). A culture of corporate governance, based on the fundamental principles of transparency and disclosure was not a priority in South African firms up until the end of the Apartheid era (Padayachee, 2014). Post-Apartheid, the government realised that reforms were necessary to address the severe lack of good corporate governance as well as inequality that was so ingrained during the Apartheid era.

With the introduction of the Cadbury Report in 1992 and the end of Apartheid just two years later, a definitive shift was seen not only in South Africa but worldwide, to a greater focus on corporate governance. This was in part as a result of the significant number of corporate failures in developed economies, such as Enron and Worldcom in the United States (Padayachee, 2014). The Cadbury report identified the importance of the board being able to discharge its responsibilities effectively, but it also necessitated a framework of accountability for these directors. The commonly identified definition of corporate governance also comes from the Cadbury Report, which defines it as "the system by which companies are directed and controlled." The report also went on to identify the principles of the Code of Best Practice, one of which was accountability of the directors to the shareholders of the company (Cadbury, 1992).

From this report stemmed the 1994 King Report in South Africa, which used the same definition of corporate governance as the Cadbury Report (Rossouw et al, 2002). The King Report aligns itself with the shift towards an AngloAmerican corporate governance model, which requires the maximisation of shareholder value to be a major focus of any public company (Ntim, 2013b; Yortt, 2009). In an attempt to address the inequalities of the past, the report specifically identified the need for boards to value diversity and take active steps to ensure transformation occurs (Padayachee, 2014). The 2002 updated King Report furthered the cause for diversity by specifically requiring companies to consider the diversity of board composition. The Report was also amended to incorporate a more stakeholder inclusive model in an attempt to more formally address the negative consequences of Apartheid (Ntim, 2013a). While it is not obligatory for all companies to comply with the King Report, all JSE listed companies have to disclose the extent of their compliance with the requirements of the Report (Yortt, 2009).

In 1996, 77% of the population were classified as Black African, 11% as White, 9% as Coloured, and 3% as Indian/Asian (Statssa, 1996). The Employment Equity Act (EEA) was passed in 1998, which aimed to end discrimination in the workplace on grounds such as race, gender, sex, and ethnic and social origin through Affirmative Action (AA) programmes (Tladi, 2001). The main aim behind AA was to correct the misrepresentation of the overall demographic of South Africa seen in the workplace. This was to be achieved in several ways: AA allows for the preferential treatment of certain groups, namely people belonging to previously oppressed race groups, and women; a requirement for companies to develop the skills of the disadvantaged groups, and finally, to promote employment opportunities which are equal for all (Burger & Jafta, 2010; Tladi, 2001).

In 2004, parliament passed the Broad-Based Black Economic Empowerment (BBBEE) Act. One of the main objectives of the Act is to substantially change the racial composition of ownership and management structures of current and new enterprises (Government, 2004; Mersham & Skinner, 2016). The Act also included a requirement for the Minister of the Department of Trade and Industry (DTI) to issue Codes of Good Practice, which provide guidelines for the implementation of BBBEE strategies. In addition, the DTI is responsible for measuring compliance with these BEE requirements, using a balanced scorecard. A 30% weighting of this scorecard was allocated to direct empowerment, 10% of which was to be allocated to Black persons in a management role (Black person here is defined as Black African, Coloured and Indian), and the remaining to Black ownership interests. Definitive targets were also created for companies, such as encouraging companies to have boards that are 40% to 50% Non-White. While compliance was voluntary, these scorecard ratings would be taken into account when the company attempted to interact with government organisations (Burger & Jafta, 2010; Ntim, 2013b).

A question is whether any benefit has been realised through all these reform policies that South Africa has in place? While this topic is too broad to delve into for purposes of this report, it is worth mentioning a few key findings of some research done to date relating to BBBEE. There are many arguments both for and against all the reform policies in place today.

Minimal research has been conducted to assess whether BBBEE has been successful in its motives. Patel & Graham (2012) identified a study done by Sartorius & Botha in 2008 that concluded that BBBEE has resulted in a fairly limited change in Black directorship and ownership in companies listed on the JSE. However, they noted that companies recognised BBBEE as imperative to business and there was a risk that through not implementing it they may lose market share. By appointing a Non-White director, the company signals their commitment to BBBEE and their ability to now obtain government contracts which could improve firm value (Gyapong, Monem, & Hu, 2016). In a study conducted by Kruger (2014), where 500 management level employees were surveyed, he found that managers claimed BEE resulted in companies not being able to effectively compete in both national and global markets. He also identified that BEE is perceived to have benefited a few Black wealthy individuals and not the broad Black economic population as was intended.

However, in a study conducted by Patel & Graham (2012), they aimed to identify who has actually been benefitting from BBBEE deals. They found an increasing trend of deals where the full risks and rewards went to broad-based partners, as well as deals that significantly involved employees. They agreed that while previously certain Black individuals were the key beneficiaries of BEE deals, more recently the main beneficiaries are employees, followed by women and a range of community, education and development trusts.

Advantages of Good Corporate Governance

A fair amount of research has gone into determining the benefits of good corporate governance. Yortt (2009) recognises that companies with good corporate governance have increased productivity and reduced risk. Sound corporate governance also increases investor confidence over future cash flows and is as a result, priced into stock values (Ntim, 2013a).

Ntim (2013a) performed a study that investigates the relationship between an integrated corporate governance index and financial performance for 169 listed South African companies for the period 2002 to 2007. They found a statistically significant and positive relationship between a broad set of good corporate governance practices and financial performance.

In the South African context, it is necessary to diversify boards due to the inequalities created by Apartheid, but whether board diversity is actually beneficial to the company is still uncertain. Studies, both locally and internationally, have found both advantages and disadvantages to diversity in board composition, which are discussed below.

Advantages and Disadvantages of Diversity

Currently, mixed views exist regarding whether or not diversity in board composition has a positive impact on firm value. The theoretical evidence, as well as empirical evidence regarding these views, is presented below.

The Advantages of Board Diversity

A common trend amongst many of the proponent arguments is that diversity enhances the decision-making ability of the board (Hunt, Layton, & Prince, 2014; Ntim, 2013b; Rhode & Packel, 2010). Based on several psychological studies, it was identified that homogenous boards could give rise to groupthink – “a phenomenon where members’ efforts to achieve consensus override their ability to realistically appraise alternative courses of action,” (Rhode & Packel, 2010, p. 393). Homogenous boards are also seen to have similar views as they come from similar life experiences and as a result, their responses to changes in the business are less effective (Gupta, Lam, Sami, & Zhou, 2014; Rhode & Packel, 2010). Heterogeneous boards avoid this problem by being able to offer more diversity in ideas, opinions, perspectives, business experiences and knowledge which is useful for improved decision-making (Ntim, 2013b) and avoiding the negative consequences of groupthink.

One psychological study done by Phillips Liljenquist & Neale (2009) assessed whether groups performed better at decision making when a new similar person or non-similar person was added to a homogenous group. They found that the group with a non-similar newcomer performed better than the group with the similar newcomer, despite having less confidence in their performance than the homogenous group. However, they assert that this is not even necessarily because the non-similar newcomer brought new ideas to the table. Merely the presence of someone who was not similar to the rest of the group motivated "behaviour that can convert affected pains into cognitive gains," (Phillips et al., 2009).

Another assessed benefit is boards being less likely to make extreme decisions and will instead engage in higher quality analysis of the situation. This also improves the organisational processes and company performance. It is also asserted that diverse boards are more likely to prevent corruption because they are not afraid of questioning management (Rhode & Packel, 2010).

Rhode & Packel also identified that through a diverse board, the monitoring function is enhanced (2010). This stems from the agency theory, which states that it is the responsibility of the board to see to interests of the shareholders above their own personal interests, through monitoring of the managers in the company (Muchemwa, 2014). The agency theory dictates that a more diverse board will be more independent, and as a result, be better equipped to carry out their duties thereby reducing the agency costs (Muchemwa, 2014; Ntim, 2013b).

As per the stakeholder theory, having a diverse board improves the relationship with stakeholders. By matching the board diversity to the diversity of their stakeholders, it aligns their organisation with their increasingly heterogeneous customer base and increases their chances of being able to reach more consumers and penetrate more markets. By taking a customer perspective, they would also be able to adapt to market developments more effectively (Hunt et al., 2014; Ntim, 2013b).

Based on research performed by McKinsey and Company, other benefits identified but not mentioned above include the following: Diversity in leadership increases the scope for the business to secure talent and allows them to gain a competitive recruitment advantage. They also found that workplace diversity increases job satisfaction for those who are female and part of minority groups (Hunt et al., 2014; Yortt, 2009).

There are clearly many positive aspects of diversity that have been identified. However, there are negatives as well which are discussed below.

The Disadvantages of Board Diversity

Under the organisational theory, it is believed that greater diversity within boards may result in the board struggling to "take decisive action and initiate strategic changes," through an increase in conflict, especially in times of stress or poor company performance (Ntim, 2013b). This increase in conflict may result in the business making the incorrect choice or missing valuable opportunities due to late responses. Ntim (2013b) also raised the issue of board members' individual interests and commitments. In a more diverse board, it is likely for these external influences to also be more diverse, which increases the possibility of conflicts occurring which will negatively impact boardroom performance.

Another major problem with board diversity is if the director is only appointed as a sign of tokenism – where a director is appointed merely to create the appearance of diversity. If this is the case, the benefits of diversity mentioned above are at risk, as the contribution of the member may be marginalised (Ntim, 2013b). This can be linked to the findings of a study done by Westphal and Milton (2000), who found that it is still debatable whether diverse directors are actually able to influence group decision-making. They noted that the demographic differences which existed actually lowered the social cohesion between board members which reduced the chances of the minority viewpoints being incorporated into decision making.

Despite the disadvantages mentioned, the positives appear to outweigh the negatives. The question remains whether the benefits mentioned above will translate into a real improvement in the firm's financial performance. Empirical evidence of research done to date regarding this is discussed below.

Empirical Evidence: Relationship Between Board Diversity and Firm Value

Despite the substantial discussion on this topic, not many empirical studies have assessed whether a relationship between racial diversity and firm performance actually exists. Of the studies conducted, mixed results have been found. This may be due to the fact that diversification has both positives and negatives. It could also be because of shortcomings in some of the tests performed, such as limited sample sizes or weak measures of firm performance. It must also be noted that the effect of a diverse board will be different for different industries, as well as for different markets (i.e. developed or not). In addition, in this instance, South Africa is a unique case because of the exceptional circumstances created by Apartheid, and that the regulatory environment is different to most other countries (Yortt, 2009).

One of the first studies to examine the empirical relationship between board diversity and firm performance was done in 2003 by Carter, Simkins, and Simpson. This study was conducted in the United States (US) over the Fortune 1000 firms and defined diversity as the percentage of females, African Americans, Hispanics and Asians on the board. This test found statistically significant positive relationships between the proportion of both women or minorities on the board and firm value, where Tobin's Q[15] was used as the measure of performance.

Another study done in the US by Carter, D'Souza, Simkins, & Simpson (2010) found a positive and significant relationship between the number of ethnic minorities on the board and return on assets (ROA). However, when Tobin's Q was used as the measure of firm financial performance, no relationship was found. However, this study did note that no negative link was found, which means that they found no reason to refute the case for board diversity.

[15] Tobin's Q is the ratio of the market value of a firm to the replacement cost of the firm's assets. See the Methodology section for more detail.

Gupta et al. (2014) conducted a study that attempted to assess the impact of board diversity (gender and ethnic) on firm financial and non-financial performance. They collected data over a 10-year period for 1153 firms in the US. They found that while the increasing board diversity did not necessarily result in an increased financial performance for the firm, it did enhance the firm's non-financial performance. These included improvements in social, environmental and governance dimensions. This was considered to be due to more diverse boards being more sensitive to the needs of other stakeholders. This results in long-term benefits for the firm as well as the broader society.

Marimuthu & Kolandaisamy (2009) examined the effect of board diversity on ROA and ROE for Malaysian listed companies over the period 2000 to 2006. They found that consistent results did not exist over the 7-year period. They found a significant positive correlation between diversity and ROA throughout the period and a significant positive relationship with ROE for the latter half of the period. In contrast to this, a study done in Indonesia by Darmadi (2011) identified that nationality diversity had no effect on firm performance, as measured by ROA. Both of these economies are emerging economies and therefore its findings may be more comparable to South Africa than that of developed economies.

Drawing closer to home, Ntim (2013b) assessed 291 companies listed on the JSE over a five-year period. He found a positive and statistically significant relationship between board diversity and the stock market valuation of the firm. This is consistent with the findings of Swartz & Firer (2005), who also found a positive significant relationship between the percentage of ethnic members on the boards of 117 JSE listed companies, and firm intellectual capital performance. Based on these two studies, not only does the market value diversity, but there is firm value to be added through diversity as well. These findings are consistent with the assertions made in law through the EEA as well as BEE that a diverse board will benefit the firm.

Another South African study by Yortt (2009) on the top 40 listed companies identified that at the time of her study, only 32.5% of the directors in the top 40 companies were Black, and only two met the BEE criteria of having at least 50% Black executive directors. She found that a positive correlation exists between ethnic diversity and company performance (measured in terms of both ROE and ROA).

Critical Mass Theory

Gyapong et al. (2016) was the first study to investigate whether or not the critical mass theory is relevant to racial diversity on boards. Kanter developed the critical mass theory in 1977, which declared that 'one is a token, two is a presence, three is a voice'. In other words, diversity is only really of benefit when the number of underrepresented groups reaches at least three members. Many studies have applied this theory to women representation on boards and have found that an increased number of women does positively influence a firm's performance (Joecks, Pull & Vetter, 2013; Konrad, Kramer & Erkat, 2008; Torchia, Calabrò & Huse, 2011).

When Gyapong et al. (2016) tested this theory on 245 South African listed firms over the period 2008-2013, they found that positive contribution to firm performance existed when one Non-White director was appointed, a greater positive contribution was earned when two Non-White directors were appointed, but when this number increased to three or above, the positive contribution began to decline. They asserted that this decline in firm value could be attributed to the shortfall in qualified Non-White directors in South Africa. As a result of the Affirmative Action policies, the same few individuals may end up holding several directorships and as a result not be able to perform all their monitoring roles effectively (Gyapong et al., 2016).

Conclusion

Based on the literature reviewed, it is evident that the proposed benefits of board diversification outweigh the possible downfalls. This is seemingly confirmed by the existence of the 1998 EEA and 2003 BEE Act as well as the introduction of the King Report, which requires regular review of the ethnic and gender composition of the board in order to reflect the diversity of the South African population as well as improve the effective operations of the firm. While only a limited amount of empirical evidence exists regarding whether any financial value is obtained through board diversification, there is some evidence to prove the contrary. Therefore, this study aims to add to the empirical evidence regarding the relationship between board diversity and firm performance in South Africa, using updated data and a less static approach than previous studies have done.

METHODOLOGY

In order to determine the role of racial diversity within boards of South African companies, this study will aim to answer three questions.

1. What is the representation of each racial group within the boards of directors of South African companies?
2. Is there a correlation between the percentage of each different racial group and firm performance?
3. Has there been an improvement in racial diversity on company boards from 2006 to 2015 and has this translated into improved financial performance?

Research Design

The aim of this research is to determine whether any relationship exists between board diversity and firm performance, as stated above. Many of the studies done previously have used a static approach, that is, board diversity was assessed only at one point in time. Our study aims to counter this by gathering data for the 2006 and 2015 fiscal years. A 10-year gap was initially planned, however, due to a significantly greater number of companies having 2006 annual reports available but not 2005, the time frame was adjusted accordingly. Including 2006 is also appropriate as it is prior to the 2008 financial crisis, which allows the effects of the crisis on companies to be excluded.

Only 29 companies are included in our sample. Due to this relatively small sample size, it is certain that the data is non-normal. As a result, regression models cannot be used to analyse the data. Therefore, in order to determine whether any correlation exists between board diversity and firm performance, a Spearman's Rho correlation test was used. Additional testing on the four respective sectors; namely Consumer Goods, Resources, Financials, and Industrial, was also performed.

Selection of Data

For the purposes of this study, two sets of data are required: Namely, the diversity that exists on boards as well as a measure of firm performance. The data was chosen based on two criteria:

1. publically available information, and
2. the measures of diversity and performance had to be comparable across industries.

For this reason, the top 40 companies listed on the Johannesburg Stock Exchange (JSE) were selected as a starting point for the companies to be included in our sample. These were reduced to 29 due to the unavailability of particular data. For example, some companies in the top 40 in 2015 were not yet listed in 2006, and were therefore excluded from the sample. Other companies did not include pictures of their directors in their annual reports. As a result the director's race could not be ascertained with sufficient certainty. (See Appendix 1 for a comprehensive list of companies that make up the sample).

Diversity Data

Diversity measures were obtained using company's directors' listings included in the annual reports. As this is a South African focused study, we adopt the four racial categories used by South Africa's national statistics agency, Statistics SA. This is namely, Black African, White, Coloured, and Indian/Asian. Directors were classified into these four categories for each company in the sample for both the 2015 and 2006 fiscal years.

Performance Measures

As mentioned above, two criteria were adopted when considering which measure of firm performance to use. Swartz & Firer (2005) identified that using an uncomplicated measure of performance can be justified for various reasons. This included the cost/benefit trade-off as well as the risk that with increased complexity, the risk of ambiguity increases. As a result, three separate measures of firm performance were chosen for this study; namely Return on Assets (ROA), Return on Equity (ROE) and Tobin's Q.

A drawback of using ROA and ROE is that they are internal measures of performance, however, they are useful for comparing the profitability of companies in the same industry. Tobin's Q compensates for this drawback in that it is a market-related measure of performance. These measures were also chosen to be consistent and comparable with prior studies (Yortt, 2009).

All three measures were obtained from the Bloomberg database, which is a reputable source, for each of the companies at the respective dates. More detailed explanations of each measure are discussed below, based on Bloomberg definitions.

$$Tobin's\ Q = \frac{Market\ Cap + Total\ Liabilities + Preferred\ Equity + Minority\ Interest}{Total\ Asset\ Value}$$

This formula is based on the assumption made by James Tobin that the market value of a company should be at least equal to its replacement cost. If the market value is above that of the replacement cost of the assets, the company is making a higher than normal return on its investment. A major advantage of Tobin's Q lies in trend analysis.

If Tobin's Q is falling, either investor sentiment has decreased or the company is not managing its assets effectively (CIMA, 2003). If investors value diversity on boards, this should be reflected by an increased market cap.

$$ROA = \frac{Net\ Income}{Total\ Assets}$$

ROA is an indication of how profitable a company is relative to its total assets. It is a reflection of how efficiently management is using their assets to generate earnings. As management is responsible for making these decisions, increased board diversity may result in better decision making and an improved ROA.

$$ROE = \frac{Net\ Income}{Shareholder's\ Equity}$$

ROE is a measure of the amount of net income returned as a percentage of shareholder's equity. This is an indication of how much profit a company generates using the money shareholders have invested.

Statistical Testing

As stated above, due to the non-normal distribution of the data obtained (a result of the small sample size), a Spearman's Rho correlation test was performed. For the purposes of this test, the measures of firm value are the dependent variables and board diversity is the independent variable. The test was conducted numerous times, to isolate any correlation between each specific racial group and each of the three measures of firm performance, for both 2006 and 2015. An aggregate test of Non-White directors (Black African, Coloured and Indian/Asian) against firm performance was also conducted.

For purposes of determining whether there has been an improvement in racial diversity on company boards from 2006 to 2015, and what effect this has had on company performance, a longitudinal data analysis with time-varying covariate was performed[16]. A longitudinal data analysis is used to determine the correlation between observations of the same variables over extended periods of time. A time-varying covariate has to be used due to the fact that the independent variable, in addition to the dependent variable, changes over the period. This test was performed three times, to assess the impact of the change in Non-White representation on boards against the three separate measures of firm performance.

[16] Abdul-Karim Iddrisu, a current PHD student in the statistics department at UCT, assisted with this.

RESULTS

Table 1 Descriptive Statistics

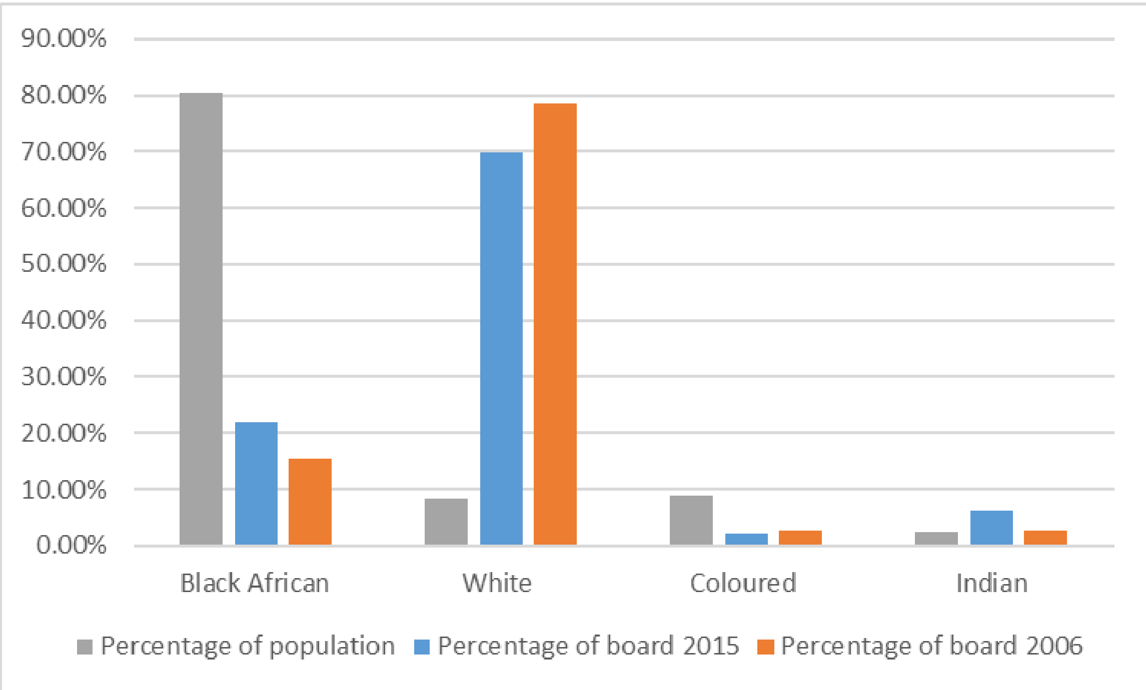
Table 1	**Breakdown of racial diversity within board of directors**					
Total number of Directors	**Total**	**Black**	**White**	**Coloured**	**Indian/Asian**	
2006	425	66 (16%)	336 (79%)	11 (2%)	12 (3%)	
2015	428	94 (22%)	299 (70%)	9 (2%)	26 (6%)	
Descriptive statistics of board diversity expressed as a percentage of board size						
	2006	**2015**			**2006**	**2015**
BLACK				**COLOURED**		
Mean	16.00%	22.00%		Mean	2.36%	1.93%
Median	11.76%	21.43%		Median	0.00%	0.00%
SDV	11.51%	13.15%		SDV	3.25%	2.66%
Min	0.00%	0.00%		Min	0.00%	0.00%
Max	46.15%	53.85%		Max	13.33%	8.33%
Sample (N)	29	29		Sample (N)	29	29
INDIAN/ASIAN				**TOTAL NON-WHITE**		
Mean	2.91%	6.23%		Mean	20.10%	30.16%
Median	0.00%	6.25%		Median	16.67%	33.33%
SDV	3.61%	4.97%		SDV	13.67%	15.22%
Min	0.00%	0.00%		Min	0.00%	0.00%
Max	15.38%	20.00%		Max	61.54%	62.50%

Sample (N)	29	29		Sample (N)	29	29

Table 1 above shows detailed descriptive statistics relating to board diversity within South African organisations. The cumulative number of directors who served on boards of directors included in the sample remained relatively the same during 2006 and 2015, with the average number of directors per board being just under 15. There has been a definite shift in boards tending more towards this average number. In 2006, the smallest board had only 8 members, while the largest had 27. However in 2015, the smallest board had 11 members and the largest only 22. On average, 2015 boards comprise 22% Black African members, 2% Coloured members, 6% Indian/Asian members and the remaining 70% White members. In addition, the standard deviation for almost all groups has also increased. This implies that the spread of diversity across these companies is still rather wide.

The biggest change from 2006 to 2015 was an increase of 28 Black African directors (comprising 16% in 2006 and 22% in 2015). However, in Figure 1 below, it can be seen that Black Africans and Coloureds are still underrepresented when compared to the demographics of South Africa, and Indians and Whites are overrepresented.

Figure 1 Board Composition by Race for 2006 and 2015, as well as Population Split



Despite board diversity reform policies, boards remain dominated by White members at approximately 70% in 2015 with only a 9% decrease since 2006. This proportion is much higher than the findings of Ntim (2013b) who found that Non-Whites made up approximately 26% of the average South African board between 2002 and 2006. Yortt's (2009) findings were also in line with Ntim (2013b).

Only two companies had no Non-White directors by 2015 (six in 2006), namely Richemont and BHP Billiton. However, both of these companies are dual listed, with Richemont's headquarters being located in Switzerland and BHP's in Australia. This is most likely the reason these boards remained completely represented by Whites in 2015.

Of the 29 companies included in the sample, 21 companies managed to increase the percentage of Non-White representation on the board from 2006 to 2015. The biggest improvement of Non-White representation on the board of directors was seen in Barclays Africa and Tiger Brands with a 33.33% and 30.48% increase in Non-White director representation since 2006 (See Appendix 1). Barclays Africa however, had no Non-White directors in 2006 whereas Tiger Brands was made up of 26.67% Non-Whites in 2006. Barclay's improvement is also somewhat misleading due to the fact that they also reduced their total board size from 17 members in 2006 to 12 members in 2015.

Five of the companies in the sample still had no *Black African* directors on its board, down from eight in 2006.

By 2015, six of the companies in the sample had more than 50% Non-White directors on the board (21%), up from only two companies in 2006 (7%). The latter finding is consistent with Yortt's (2009) findings of only two companies (5%) having more than 50% Black executive directors in 2008.

Correlation between board diversity and firm performance

Table 2: Statistical Results testing for a correlation between board diversity and firm performance

	ROA		**ROE**		**Tobin's Q**	
	2006	**2015**	**2006**	**2015**	**2006**	**2015**
% Black Correlation	-0.055341	-0.14373	-0.14878 - 0.152196		-0.174347 - 0.263682	
p-value	0.776	0.457	0.441	0.431	0.366	0.167
% Coloured Correlation	0.038936 - 0.090527		0.01701	-0.051782	0.021671	0.032769
p-value	0.841	0.640	0.930	0.790	0.911	0.866
% Indian Correlation	0.095457 - 0.043553		0.025637	0.002521	-0.195776 - 0.086112	
p-value	0.622	0.823	0.895	0.990	0.309	0.657
% Non-White Correlation	-0.012125 - 0.153509		-0.110797 - 0.138963		-0.186267 - 0.250966	

p-value	0.950	0.427	0.567	0.472	0.333	0.189

Contrary to expectations, a negative relationship was found between the accumulated Non-White percentage and ROE, ROA and Tobin's Q at each of the two time periods. This is contradictory to the empirical findings of several studies such as Ntim (2013b), Swartz & Firer (2005), and Yortt (2009). This could be a result of using simple measures of firm performance or the significantly smaller sample size. This negative relationship could also be as a result of investors not factoring in the requirement of board diversity when valuing companies. South Africa is only weak-form efficient which means that publically available information is often not priced into the market value (Ntim, Opong, Danbolt, & Dewotor, 2011).

A positive relationship was however found for Coloured and Indian representation when using both ROA and ROE in 2006, as well as using Tobin's Q relative to Coloured representation in 2006. However, almost all of these became negative when using the 2015 diversity and performance measures.

Despite the associations found, as Table 2 shows, none of these findings are statistically significant at a 90% confidence level as evidenced by the large p-values. This means that we cannot draw any conclusions as to the nature of the relationship between board diversity and firm performance.

Table 3 Correlation between % Non-White and Measures of Performance, split by Sector

% Non-White	ROA		ROE		Tobin's Q	
	2006	2015	2006	2015	2006	2015
Consumer Goods (12)	0.412581	-0.19912	0.226904	-0.32388	-0.156504	-0.25785
p-value	0.183	0.535	0.478	0.304	0.627	0.418
Financials (11)	-0.40036	-0.37352	-0.41481	-0.06932	-0.322051	-0.34508
p-value	0.222	0.258	0.205	0.839	0.334	0.299
Industrials (3)	0.496013	0.715622	0.919151	0.508945	0.9164824	-0.94992
Resources (3)	0.657691	-0.92027	0.428115	-0.81049	0.9079389	-0.32326

When split into their respective sectors, 12 companies fell into the Consumer Goods Sector, 11 in the Financial sector, and 3 in each of the Industrials and Resources sectors respectively (see Appendix 1). Given the small number of companies in the Industrials and Resources sectors, no further discussion is warranted on these results.

When companies were split into their various sectors and the relationship between the percentage of Non-White board members and the various measures of performance was investigated, an increased number of positive associations were identified. Within the consumer goods sector, which made up 41% of the sample size (12 companies), a positive association was found between board diversity and firm performance for both ROA and ROE in 2006, however, these both became negative by 2015.

A negative relationship between the firm diversity and firm performance was found within the Financials sector, at all points in time. However as Table 3 shows, none of these findings are statistically significant at a 90% confidence level, as evidenced by the large p-values. This means that we also cannot draw any conclusions as to the nature of the relationship between board diversity and firm performance, per sector.

Testing the change in board diversity and firm performance from 2006 to 2015

Table 4 Longitudinal Data Analysis Results

	Coef.	**Std. Err.**	**z**	**P>z**	**[95% Conf.**	**Interval]**
ROA						
year	-0.0056168	0.0026011	-2.16	0.031	-0.010715	-0.0005187
Non-White	-0.0435356	0.0701489	-0.62	0.535	-0.181025	0.0939538
ROE						
year	-0.0123122	0.0046994	-2.62	0.009	-0.0215228	-0.0031017
Non-White	-0.1151957	0.1184299	-0.97	0.331	-0.347314	0.1169226
Tobin's Q						
Year	0.0096742	0.0271999	0.36	0.722	-0.0436366	0.062985
Non-White	-1.205777	0.9138088	-1.32	0.187	-2.996809	0.5852555

As shown in Table 4 above, for both ROA and ROE, time is significant as evidenced by the small ‘year’ p-values. This means that there has been a significant change in the performance measures over the period. The fact that they are both negative indicates that there has been a decrease in the performance measures over time. This was indeed observable from the data: the average ROA for the sample of companies was 12.22% in 2006 but had dropped to 6.72% in 2015. Similarly, the average ROE also significantly dropped from 28.23% in 2006 to 16% in 2015. Only Tobin's Q remained relatively consistent at an average of 2 and 1.96 respectively. While the time varying coefficient was positive for Tobin's Q, it was not statistically significant.

For all three measures, there is a negative correlation between the Non-White representation and firm performance. This can be interpreted as for each 1-unit increase in Non-White representation on a board of directors, over time this has resulted in a 0.0435 decrease in ROA, a 0.115 decrease in ROE, and a 1.21 decrease in Tobin's Q. However, none of these correlations are statistically significant at a 10% confidence level, and therefore conclusions cannot be drawn as to the nature of the relationship between the change in board diversity and the change in firm performance.

This is inconsistent with the findings of Ntim (2013b) who found a positive correlation between board diversity and firm performance over a consecutive five-year period. The reason for the difference could be as a result of the fact that Ntim's study was over a five-year consecutive period, and therefore more data points were used for each year's change in performance and diversity, whereas this study assessed a singular change over a (longer) nine-year period.

CONCLUSION

The board of directors is a crucial part of any organisation as they are responsible for performing critical advisory and monitoring roles. As a result of the Apartheid era, South African has seen significant reform policies affecting the economy, a major focus of which was attempting to diversify the leadership positions within organisations.

Based on the literature reviewed, a strong argument exists, both theoretically and empirically in a South African context, for board diversification to occur. Studies performed by Ntim (2013b) and Swartz & Firer (2005) both found positive correlations between board diversity and firm performance.

This report has attempted to identify whether or not a relationship exists between racial board diversity and firm performance using a sample of 29 publically listed companies in the South African stock exchange. This report also assessed whether there has been an improvement in board diversity from 2006 to 2015 and whether this has translated into improved firm performance. This time period was useful as it was when the government was implementing a range of reform policies including the 1996 EEA, the 2003 BEE Act, as well as the 1994 and 2002 King Reports.

This study found inconclusive evidence as to whether a relationship exists between board diversity and firm performance in the South African context, both at specific points in time (2006 and 2015), and over this period of time. These findings could be due to the limitations that exist in this study, which are further elaborated on below.

However, the study did find that boards are becoming increasingly racially diverse, although the increase has not been substantial. The board racial mix still does not reflect the population demographics, and therefore government's reform policies have not been as effective as was hoped. Thus, a recommendation is that government re-evaluate the strategies used to obtain the objectives of their reform policies. Furthermore, it is recommended that firms' commitment to transformation is prioritised beyond the diversification of the board of directors, for example through in-house training initiatives that assist in upskilling and developing current employees towards possible future board positions.

The preliminary evidence obtained from this study is useful to a range of interested parties beyond policy-makers and government. These include investors that are engaged in formulating responsible investing practises, as well as the board of directors themselves. Finally, other researches may be benefit from these initial findings in taking this research forward.

LIMITATIONS AND SCOPE FOR FURTHER RESEARCH

The purpose of this study is to obtain preliminary evidence on the whether a relationship exists between firm performance and board diversity, in a South African context. There were several limitations which existed in this study which contributed to the inconclusive results discussed above. The biggest limitation of this study was the very small sample size, which made it difficult to draw conclusions. It is unlikely that the JSE Top 40 would be representative of all listed companies (Yortt, 2009). In addition, some companies included in the sample are dual listed, with their places of effective management not located in South Africa. As a result, the diversity of the board may not be as highly prioritised in that country as it is in South Africa (Ntim, Opong, & Danbolt, 2012).

Furthermore, the nature of this study was that of a preliminary investigation into the relationship between board diversity and firm performance in South Africa, and did not control for other variables that influence firm performance. Sales growth (Beiner, Drobetz, Markus & Zimmermann, 2006; Ntim et al., 2012); research and development activity (Shrader, Blackburn, & Iles, 1997; Adams and Ferreira 2009; Baranchuk and Dybvig 2009; Ntim et al., 2012); degree of leverage (Jensen 1986; Guest 2009; Ntim et al. 2012); capital expenditure (Pfeffer, 1973; Guest, 2009; Kang, Cheng & Gray, 2007; Dale-Olsen, Schone & Verner, 2013; Triana, Miller & Trezebiatowski, 2013); and firm size (Beiner et al. 2006; Roberson and Park 2007) have been found to influence firm performance. It is recommended that this study be reperformed and these factors controlled for, in order to establish more conclusive results.

As mentioned above, ROA and ROE are short-term accounting measures of performance. As a result, they can be perceived as backward looking and may not accurately reflect the decision-making abilities of the current board of directors. ROA and ROE may therefore not be the best way to measure the impact of diversity (Rhode & Packel, 2010). A suggestion may be to reperform the study by including non-financial measures of firm performance that reflect the firm's sustainability and ability to create value (not solely financial value), much like the study performed by Gupta et al. (2014) in the US.

All three measures of performance are also very simplistic in nature, and thus may not be the most suitable measure of performance to be compared to board diversity. It is subject to, and can be influenced by several external factors, which have not been controlled for in this study. Future studies could expound on this study by controlling for external factors such as economic growth and inflation, which may result in a different outcome.

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Appendix 1: List of JSE Top 40 Companies included in this study

RANK	COMPANY	SECTOR	Change in Non-White % from 2006 to 2015
1	British American Tobacco Plc	Consumer Goods	7.69%
2	Sabmiller Plc	Consumer Goods	11.61%
3	Naspers Ltd	Consumer Goods	4.76%
4	Compagnie Fin Richemont	Consumer Goods	0.00%
5	Bhp Billiton Plc	Resources	0.00%
6	Steinhoff International Holdings	Consumer Goods	-2.98%
7	Sasol Limited	Industrials	0.51%
8	MTN Group Ltd	Consumer Goods	-3.21%
9	Firstrand Ltd	Consumer Goods	6.36%
10	Old Mutual Plc	Financials	19.05%
11	Standard Bank Group Ltd	Financials	14.44%
12	Aspen Pharmacare Holdings Ltd	Consumer Goods	5.59%
13	Sanlam Limited	Financials	12.94%
14	Barclays Africa Group Ltd	Financials	33.33%
15	Remgro Ltd	Industrials	22.38%
16	Bidvest Ltd	Industrials	9.26%
17	Woolworths Holdings Ltd	Consumer Goods	12.73%
18	Intu Properties Plc	Financials	3.79%
19	Anglo American Plc	Resources	16.67%
20	Nedbank Group Ltd	Financials	21.32%
21	Discovery Ltd	Financials	-1.67%
22	Shoprite Holdings Ltd	Consumer Goods	11.76%
23	RMB Holdings Ltd	Financials	13.75%
24	Growthpoint Prop Ltd	Financials	7.14%
25	Capitec Bank Holdings Ltd	Financials	-3.33%
26	Tiger Brands Ltd	Consumer Goods	30.48%
27	PSG Group Ltd	Financials	-1.19%
28	Mr Price Group Ltd	Consumer Goods	6.67%
29	Anglo American Platinum Ltd	Resources	6.67%

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AUD023 **An analysis of the IRBA Consultation Paper on mandatory audit firm rotation together with key organisation responses**

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ABSTRACT:
In 2014 the European Union passed regulations to adopt mandatory audit firm rotation (MAFR) applicable to member states. The United States regulators have decided not to adopt MAFR, choosing instead to retain the existing regulations of audit partner rotation as the better alternative to ensure auditor independence. In light of corporate failures and concerns regarding auditor independence and audit quality, many regulators globally are considering whether to follow the European Union or the United States. In October 2016 the Independent Regulatory Board for Auditors (IRBA) issued a consultation paper, which explicitly stated its intention to pursue a change in regulation in favour of MAFR. The consultation paper requested response and comment from key stakeholder groups in the audit industry. This paper analyses the consultation paper and the key responses received by the IRBA. The findings show that no organisation is clearly in favour of MAFR and there is a unanimous consensus that more consultation and research is necessary before any decision is made and regulations changed. All four of the large firms are against MAFR, believing that the forced rotation of audit firms will have the unintended effect of reducing audit quality.

Key words: Auditor independence; Audit committee; Mandatory Audit Firm Rotation; Audit quality

INTRODUCTION AND RESEARCH OBJECTIVE

The South African audit regulator, the Independent Regulatory Board for Auditors (IRBA), is currently advocating for a change in legislation in favour of mandatory audit firm rotation as a means of improving audit quality (IRBA, 2016). In October 2016 the IRBA published a consultation paper, requesting response from all stakeholders. In this paper the regulator provided details of its intended timeline and the specific requirements for mandatory audit firm rotation (MAFR). However, there is considerable opposition to this proposal, from various forums, organisations and the audit industry itself.

The purpose of this paper is to briefly outline the context of MAFR in South Africa and to summarise and briefly analyse the position of the national regulator (the IRBA) based on its recently issued consultation paper. The detailed letters from key stakeholder organisation and groups who submitted responses to the IRBA consultation paper will then be reviewed, summarised and briefly analysed. The methodology employed will be a summative content analysis. A summative content analysis involves counting and comparisons, usually of keywords or content, followed by the interpretation of the underlying context. Content analysis is a widely used qualitative research technique (Hsieh & Shannon, 2005; Leedy & Ormond, 2010).

INTERNATIONAL DEVELOPMENTS

In recent years, most notably since the collapse of Enron in 2001, United States (US) regulators have expressed concerns about auditor independence and taken actions to mitigate those concerns (Laurion, Lawrence, & Ryans, 2015). These include the passage of the 2002 Sarbanes–Oxley (SOX) Act, also known as the "Public Company Accounting Reform and Investor Protection Act", which is United States (US) legislation that, among many other requirements, prohibits the auditor (in a US context) from providing most non-audit services to its clients. More specifically, SOX imposes a one-year “cooling-off period” for former auditors taking employment at their previous audit clients and requires audit partners to rotate off the client as engagement partner every five years. In other words, an auditor cannot be the engagement partner, responsible for signing the audit report, for a period greater than five consecutive years. The partner must then rotate off the client entirely for a period of at least five years – the “cooling-off period” - before being eligible to become the engagement partner again. This is a regulation that is designed to mitigate the independence threats that present due to long audit tenures, such as familiarity with the client company’s management. In terms of SOX, the US shifted from a seven-year rotation with a two-year cooling-off period (before SOX), to the stricter five-year rotation and five-year cooling-off period for audit engagements. The audit committee is required to ensure that the requisite rotation actually takes place (Tepalagul and Lin, 2015). Therefore SOX did not go so far as to require MAFR, only partner rotation.

In the European Union (EU), regulations have also recently changed, resulting from the audit reform processes that have been widely debated between 2011 and 2014. The European Parliament in 2014 voted in favour of Directive 2014/56/EU, amending Directive 2006/43/EC on statutory audits of annual accounts and consolidated accounts (European Commission, 2015). These new rules force European companies to hire new audit firms at 10- to 24-year intervals, depending on certain criteria, bringing mandatory audit firm rotation into one of the world’s most significant economic regions (KPMG, 2014). More specifically, public interest entities have to appoint a new firm of auditors every 10 years. However, member states have the option to extend this maximum period to 20 years (24 if there is a joint audit) provided the audit is subject to a public tendering carried out after 10 years. These new rules require European-listed companies, banks and financial institutions to appoint a new audit firm every 10 years, though this can be extended if companies put their audit contract up for bid at the decade mark or appoint another audit firm to do a joint-audit. The rules also prohibit certain non-audit consulting services being rendered by the auditor and cap the amount of additional fees auditors can charge their clients (to 70%).

However, the European regulations are complex and controversial. Many, including the IFAC, have recognized that the decision in Europe in favour of MAFR “was an especially politically-driven process” (Choudhury, 2017). According to the IFAC, the European legislation provides over 80 options for Member States to consider, and has resulted in there being even more fragmented regulatory arrangements, with 28 different arrangements - one for each Member State - being implemented across Europe (Choudhury, 2017).

The United Kingdom (UK) has been impacted by this European legislation, despite its decision to leave the Eurozone in 2016. For public interest entities the UK has taken up a member state option to extend the 10 year rotation period to the maximum of period allowed of 20 years, provided the audit is subject to a public tendering process, carried out at least every 10 years, whereby the incumbent audit firm is allowed to tender and be reappointed (Agnew, 2016; Choudhury, 2017). Before the 2014 regulation changes in Europe, the EU required partner rotation every seven years and a cooling-off period of two years, in compliance with the IFAC Code of Professional Conduct. The UK required a five-year-on, five-year-off policy.

As can be seen in the comparison between the US regulations of auditor rotation and the recently adopted EU (which include the UK) audit firm rotation regulations, there is a difference between auditor rotation (i.e. the audit engagement partner) and audit firm rotation, although sometimes the terms are used too loosely and the distinction is lost. Auditor rotation, as in the US and South Africa, refers to the mandatory rotation of the engagement audit partner after a prescribed five years. Under auditor rotation the audit firm retains the client, but a different audit partner is assigned to the engagement. There is then a “cooling-off” period (five years in the US, two years in South Africa) whereby the rotated audit partner must wait until being allowed to be reappointed as engagement partner on that client. However, audit firm rotation, as is now being adopted in 2016 by the EU, is a step further than this. It requires a change of the audit firm, not simply the audit partner. The audit firm effectively loses the business of the audit client, regardless of whether or not the partners in the firm are suitable and capable of performing the audit. The EU has adopted this in an attempt to further mitigate the threats (particularly familiarity) to auditor independence, thereby protecting audit quality (KPMG, 2014).

The IRBA has provided the following table detailing the countries that have implemented MAFR:

Table 1: Countries that have implemented MAFR according to the IRBA

NAME OF COUNTRY	MAFR ENFORCEMENT DATE	TERMS OF ROTATION
Brazil	1999	Five (5) years' mandatory firm rotation. However, since 2011 an amendment to the requirement provided that if the audited company has a Statutory Audit Committee, then the rotation of the audit firm may be extended to 10 years.
China	2010	Five (5) years' mandatory firm rotation and every three years the audit must undergo a tendering process.
European Union Countries	2016 (June)	Ten (10) years' mandatory rotation, which can be extended to 20 years if the audit undergoes a public tendering process. Furthermore, it can be extended to 24 years after the initial 10 years, if joint auditors are appointed.
India	2013	Ten (10) years' mandatory firm rotation, made up of two five-year terms.
Netherlands	2012 - Effective in 2016	Eight (8) years' Mandatory Audit Firm Rotation and restricts non-audit services. After rotation, there is a two-year cooling-off period before the firm can be hired again. Furthermore, this rule will be implemented retrospectively. The effective date for mandatory firm rotation in the Netherlands is 1 January 2016. Companies that will have had the same auditor for eight consecutive years on that date will need to change firms before that date.
Korea	2006	Seven (7) years' mandatory firm rotation.
Turkey	2014	Seven (7) years' Mandatory Audit Firm Rotation.
Italy	1974	Nine (9) years' mandatory firm rotation and three years' auditor (Incumbent) rotation. However, the individual terms may be renewed every three years and be extended up to a maximum firm tenure of nine years.
Mauritius	2016	The national regulator announced that it will introduce a Mandatory Audit Firm Rotation policy for seven years for all listed companies.

Source: IRBA (2016e)

However, the IFAC in its official response to the South African IRBA, has criticised the accuracy of Table 1 stating that it is selective, and does not recognize that even in some of the jurisdictions listed mandatory audit rotation requirements have been abolished or revised (Choudhury, 2017). Examples provided by the IFAC are the Republic of South Korea and financial institutions in Brazil. In addition, the IFAC response pointed to the fact that the table is biased in that it does not recognize that some jurisdictions have abolished mandatory audit firm rotation requirements, or have considered and rejected it. Examples provided of this are Singapore and the very significant jurisdiction of the United States. In Canada, the Chartered Professional Accountants of Canada and Canadian Public Accountability Board jointly performed a review and concluded that mandatory rotation would not contribute to enhanced audit quality (Choudhury, 2017). According to the IFAC response, recently one “highly reputable internationally-recognized regulator”, the Monetary Authority of Singapore (MAS), announced that it is proposing ceasing mandatory audit firm rotation. The Monetary Authority of Singapore noted in this regard that “research studies conducted thus far internationally did not provide conclusive evidence linking mandatory firm rotation with an improvement in audit quality. From MAS’ observations and feedback received from stakeholders, MAS recognises that there are also negative consequences associated with frequent rotation of external auditors.” (Choudhury, 2017)

Table 2: Countries that have implemented MAFR according to the SAICA

COUNTRY	COMPANIES	SCOPE OF REQUIREMENT	
Belarus	Banks	Three-year rotation.	
Bolivia	Financial Institutions and Listed companies	Six-year rotation.	
	Insurance and reinsurance companies and Pension Funds	Three-year rotation.	
Brazil	Non-bank listed companies	Five-year rotation.	Began in 2012.
	Company has a statutory audit committee	10-year rotation.	
Cambodia	Financial institutions	Three-year rotation.	
China	State-owned entities and financial institutions	Five-year rotation. Tendering every three years.	
Croatia - EU	Banks	Seven-year rotation.	
	Insurance and leasing companies	Four-year rotation.	
Ecuador	Financial institutions	Five-year rotation.	
	Insurance companies	Six-year rotation.	
Georgia	PIE	10-year rotation.	
Iceland - EU	Financial institutions and insurance companies	Five-year rotation.	
India (2014)	Listed companies and some unlisted	10-year rotation with five-year cooling-off period.	
India	Banks and insurance companies	Four-year rotation.	
	Provident trusts	Two-year rotation.	
	Public sector entities	Four- or five-year rotation.	
Indonesia (2016)	Financial Institutions and Listed companies	10-year rotation. Two-year cooling-off period.	
Indonesia	Central bank	Five-year rotation.	
	Public and private companies	Six-year rotation. However, many firms “reconstitute” every six years.	
Israel	Government companies	Two three-year rotation periods with possible extension in certain circumstances.	
Italy - EU	Listed companies and public interest entities	Nine-year rotation.	

Kuwait	Listed companies	Four-year rotation.
	Government and quasi-government institutions	Six-year rotation.
Laos	Banks	Three-year rotation.
	Listed companies	Three-year rotation with possible extension of one year in certain circumstances.
Macedonia	Banks and insurance companies	Five-year rotation.
Morocco	Banks	Six-year rotation.
	Listed companies	12-year rotation.
Mozambique	Credit and financial institutions	Five-year rotation.
Nigeria	Regulated private companies	10-year rotation. Seven-year cooling-off period.
Netherlands - EU	PIE	Eight-year rotation.
Oman	Listed companies, government controlled companies, and private joint stock companies	Four-year rotation.
Pakistan	Financial institutions and insurance companies	Five-year rotation.
Palestine – West Bank and Gaza	Banks and microfinance institutions	Five-year rotation of audit partner (if it is not possible to rotate the partner, the audit firm must rotate).
Paraguay	Financial institutions, insurance and reinsurance companies and listed companies	Three-year rotation.
Peru	Government entities	Two-year rotation.
Poland - EU	Insurance companies	Five-year rotation.
Portugal - EU	Listed companies	Eight- to nine-year rotation recommended on a "comply or explain" basis.
Qatar	Banks	Five-year rotation.
	Qatar shareholding companies, whether listed or not.	Three-year rotation is a recommended best practice.
Russia	Banks	Five-year rotation – legislation submitted.
Saudi Arabia	Joint stock listed companies	Five-year rotation.
	Banks	Upon request from the central bank, ensure partner rotation instead
Serbia	Banks and Insurance companies	Five-year rotation with 10 years allowed when combined with partner rotation.
Slovenia - EU	Public companies	
EU	Five-year partner or firm rotation recommended.	
	Insurance and investment management companies	Five-year rotation required.
Tunisia	Financial sector companies	Two three-year rotation periods.
	Listed and non-listed companies	Three three-year rotation periods for firms with fewer than three partners. Five three-year rotation periods for firms with more than three partners, which have partner rotation.
Turkey	Public Firms listed on Borsa Instanbul	Seven-year rotation (max seven out of 10 years).
Ukraine	Banks	Seven-year rotation.
	National Bank	Five-year rotation.
Uzbekistan	All companies that require an audit (including financial institutions, joint stock companies, insurance companies, and not-for-profit organisations)	Three-year rotation.
Venezuela	Banks	Three-year rotation. Began in 2014.
Vietnam	Banks	Five-year rotation.

Source: (SAICA, p.11-15, 2017)

Table 3: Countries that have repealed MAFR in whole or in part according to the SAICA

COUNTRY	COMPANIES	SCOPE OF REQUIREMENT	REASON ABOLISHED
Argentina		Repealed in 2016.	In favour of partner rotation. Aligned with IESBA
Austria - EU	Banks, large, listed and insurance companies	Enacted in 2001 and effective beginning in 2004, repealed in 2004 before implemented.	Cost exceeded benefit
Brazil	Banks	Regulations enacted in 1996 and applicable to audits starting in 2001, repealed in 2008;	See above for non-bank listed company requirement.
Canada	Banks	Required until 1991.	Abolished in favour of partner rotation. Lack of cost-effectiveness (Fontaine, 2015)
Costa Rica		Required in 2005, appealed and rejected in 2006 and 2007.	Reversed in 2010 and reinstated again.
Czech Republic		Applied between 1992 and 1995.	Abolished as part of deregulation of the market in moving from a command economy.
Greece - EU		Abandoned since 1994.	
Latvia - EU	Banks	In 1998, 1999 and 2000, repealed in 2002.	
Pakistan	Listed companies	Required in 2002, but was reversed in 2003-04.	See above for financial institutions and insurance companies.
Philippines		Had plans to adopt but abolished all plans in 2013.	Not feasible, not enough audit firms to implement successfully.
Singapore	Domestic Banks	Required in 2002. Suspended in 2008. Proposal made to abolish in September 2016.	Initially due to worldwide financial crisis. Based decision now on studies performed.
Slovak Republic EU	Banks	Required in 1996, repealed in 2000.	
South Korea	Listed companies	Adopted in 2003 and effective beginning in 2006, repealed in 2009.	Does not improve audit quality.
Spain - EU	Listed companies and large companies	Required in 1988, repealed in 1995 before implementation.	Negative effect on quality of audits. Disturbed audit market structure
Turkey	Banks	Eight-year rotation.	Repealed in 2011. New rules enacted in 2014.
	Insurance companies	Seven-year rotation.	
	Energy companies and all listed companies	Five-year rotation, unless the company and audit firm meet certain criteria, in which case partner rotation sufficient.	
Uganda		Abolished	

Source: (SAICA, p.11-15, 2017)

Table 4: Countries that have considered but did not adopt MAFR according to the SAICA

COUNTRY	COMPANIES	DECISION
US	Public companies	No grounds for enhancement of auditor independence. GAO performed study. House of Representatives voted 321:61 against MAFR.
Australia		Not in favour of MAFR.
New-Zealand		Not in favour of MAFR.
Japan		Considered and decided NO: Four reasons: 1. Decrease audit quality. 2. Lack of knowledge of new client's business and industry. 3. Increase audit costs. 4. Not required by other major countries (at that time).
EU COUNTRIES BEFORE IMPLEMENTATION OF MAFR IN 2016		
Germany	Banks	German Bank promoted in 1995 with no success. Introduced partner rotation instead.
UK		Considered and decided NO: 1. Quality of audits decrease. 2. Cost of audit increase.
France		Considered and decided NO: 1. Quality of audits decrease. 2. Cost of audit increase. 3. Lack of knowledge of new client's business and industry.

Source: (SAICA, p.11-15, 2017)

From the above tables it is clear that there is no consensus internationally regarding the ability of MAFR to improve or preserve audit quality. The jurisdictions that have abolished MAFR or decided not to adopt it are doing so because of the perceived negative consequences of such legislation and perhaps because there is a belief that there is no need change the current policy of audit partner rotation. The Singapore authority, as quoted above, is hesitant to pursue MAFR considering the lack of research indicating that it will improve audit quality. The IFAC agrees, as demonstrated by this quote from the current CEO of IFAC, Fayez Choudhury:

> *"On audit quality, however, IFAC points out that evidence does not clearly support the notion that mandatory audit firm rotation will enhance audit quality. Academic research is at best mixed, and practical examples are too often confounded by other elements."* (Choudhury, 2017)

THE SOUTH AFRICAN CONTEXT

Currently South Africa does not legislate the mandatory audit firm rotation (MAFR) laws as have been implemented in the EU, but rather follows a system similar to the US, with auditor rotation (i.e. individual audit partner) required every five years. This includes a cooling-off period of two years, as prescribed by section 92 of the Companies Act, 2008 (Act No. 71 of 2008). The profession in South Africa also places a large degree of reliance on the profession's ethical standards in order to internally assess (or self-assess) threats to its independence as auditor. These standards are contained in the International Standards on Auditing (ISAs), as well as the Code of Ethics for Professional Accountants which is consistent in all material respects with the International Federation of Accountants Code (the IFAC Code). In terms of this code, the engagement audit partner on a publically listed entity should rotate off the client after no longer than seven years (IFAC Code, Section 290:154, 2006). These are internationally recognised standards for which the auditor can assess their independence from the audit client. The relevant Code of Professional Conduct in South Africa for auditors is the IRBA Code of Professional Conduct, read together with the IRBA's Rules Regarding Improper Conduct. The IRBA Code is developed based on the IFAC Code.

In South Africa there is also regulation and guidance provided to the audit committee of public interest entities to assess the independence of the auditor. This is legislated by section 94 of the Companies Act, 2008 (Act No. 71 of 2008). In terms of this statute the audit committee must judge whether the auditor and the audit firm is suitably independent of the company and must formally approve all non-audit services provided by the audit firm, such as advisory or tax related services. Therefore, the audit committee is considered to be a key gatekeeper of auditor independence. Guidance is also provided to audit committees in the King IV Report on Governance (King IV), which is the South African standard on issues of corporate governance. King IV recommends that the audit committee manages the relationship between management and the auditor and continually assesses the appropriateness and independence of the auditor, recommending them for appointment to the shareholders. The audit committee also retains the right to place the audit engagement out for tender into the market. However, the legislation, regulations and recommended practices in South Africa, including those of the Johannesburg Stock Exchange (JSE), stop short of requiring mandatory audit firm tendering or mandatory audit firm rotation as is now being implemented in the EU and the UK.

THE IRBA CONSULTATION PAPER

In October 2016 the South African audit regulator, the Independent Regulatory Board for Auditors (IRBA), issued a consultation paper ('the paper') detailing the regulator's reasons for implementing MAFR as well as the intended rotation periods and other criteria. Interested and affected parties were then asked to submit written comments on the paper by 20 January 2017. The paper has made clear IRBA's intention to publish MAFR as a rule, binding all registered auditors, through its legislative powers in terms of the Auditing Profession Act, 2005 (Act No. 26 of 2005), and that, after publication of the rule, MAFR will be in operation in South Africa (as of April 2023).

The paper explained that the regulator had considered various alternatives for regulatory change to improve auditor independence but had resolved that the appropriate measure to be introduced would be MAFR, with the possibility, in certain circumstances, to implement MAFR in conjunction with joint audits. At the outset of the paper the regulator recognised that its "ultimate responsibility is to protect the investing public, and to contribute to ensuring a reliable financial market which will generate confidence and promote investment and growth" (IRBA, 2016) and that MAFR was the best means of ensuring this.

The paper outlined that the IRBA had begun research on the topic in July 2015, concurrently with a consultation process undertaken to engage in dialogue with a broad range of stakeholders. The range of stakeholders included audit firms, regulatory bodies, business forums and JSE listed company representatives.

The responses received by the IRBA from stakeholders on whether the proposed measures would achieve the objective of strengthening auditor independence to enhance audit quality are shown in Figure 1.

Figure 1: Responses received by the IRBA from consultation process

Source: IRBA, p.24, 2016b (Format changed by author)

As is clear from the above data produced in the consultation paper, JSE companies and "big 4" audit firms are against MAFR as a means of improving audit quality. However, it was unclear from the consultation paper whether this table represented the official audit firm position or individual audit partner positions. It appears to represent the firm's position, therefore suggesting that one of the "Big 4" audit firms is partially in favour of MAFR i.e. 25%. However, per the analysis of the audit firm responses to the IRBA consultation paper performed below, it was clear from the letters to the IRBA that all four "Big 4" firms were decidedly against MAFR and explicitly stated that it was the wrong option for South Africa and would not achieve an improvement in audit quality. It is therefore uncertain why, in Figure 1, it indicates that one firm "partially agrees" with MAFR. Per the IRBA consultation document, the non-"big 4" audit firms appear to have mixed opinions based on the above table for "mid-tier and other audit firms".

However, it is submitted that the above data cannot be considered sufficient to make reliable conclusions, for at least the following reasons:

- The representatives of the stakeholders who provided these opinions have not been disclosed. Therefore details of their seniority or whether they do represent their respective organisations is questionable.
- The forum and means in which the data was captured has not been clearly explained.
- The questions posed to the various groups may have been different. No standardised questionnaire appears to have been used.
- The opinions of these stakeholder groups regarding all the various factors that affect MAFR, such as the possible direct and indirect effects of MAFR and possible alternatives, have not been sufficiently or appropriately collected and analysed.

The above data was not collected as part of an academically rigorous and verifiable methodology. It is therefore submitted that while the above data is useful, it is not sufficient to properly understand the nature and extent of the opinions of these various stakeholder groups, let alone sufficient to conclude on whether MAFR is needed to improve audit quality in South Africa.

The intended rotation period

The paper made the details of the intended rotation periods clear. An audit firm will not be eligible to serve as the registered auditor of a listed company for more than ten consecutive financial years. Thereafter, the audit firm will only be eligible for reappointment as registered auditor after the expiry of at least five financial years (the cooling off period). This is similar to the ten year rotation period implemented in the European Union. The IRBA's intention is for legislation to be amended and these requirements to be effective for financial years commencing on or after 1 April 2023. Transitional provisions were also provided, for example if there are joint auditors at the date the legislation becomes effective.

The IRBA's reasons for MAFR

In previous communications from the IRBA, the main reasons why further measures were being considered to strengthen auditor independence through MAFR are the following:

- It will strengthen auditor independence and so protect the public and investors, which is part of the IRBA's strategy;

- It will address market concentration of audit services and create a more competitive environment, which will positively influence audit quality; and
- It will promote transformation by creating more opportunities for small and mid-tier audit firms to enter certain markets, provided they are competent to audit in those markets.
  (IRBA, 2015b; Ziady, 2016)

Although stating that auditor independence (to ensure public protection) was the reason for pursuing MAFR, the IRBA paper also made statements regarding these other objectives. The paper was clear that MAFR was to be adopted in response to a number of concerns and threats. For example, the paper the IRBA explained that there was a "risk of failure of one of the major audit firms" because the audit industry was too concentrated around the "Big 4" firms. Consequently, it was stated that any failure of a "Big 4" firm, as happened with Arthur Andersen, will necessarily permeate other economies and jurisdictions, exaggerating the damage and financial loss (IRBA, p.12, 2016b). In order to illustrate this reality the paper quoted the Financial Times (London) that *"only two FTSE 100 companies are not audited by the Big Four: Sports Direct, which retained the services of Grant Thornton after earning promotion to the FTSE 100 in 2013, and Randgold Resources, which has used BDO since 2007."* The paper also quoted the Institute of Chartered Accountants England and Wales (ICAEW) as follows: *"At the end of 2014, the Big Four audited 95 per cent of the world's 500 largest companies."* (IRBA, p.12, 2016b)

The paper clarified the regulator's position regarding its intention to use MAFR to promote black-economic transformation by stating "MAFR is not intended to address transformation but rather to strengthen auditor independence" (IRBA, p.29, 2016b). However, the paper admitted that transformation was an intended benefit of MAFR by conceding "that the MAFR rule on its own will not achieve all the transformation objectives required in the South African context; however, it can contribute to building capacity" (IRBA, p.29, 2016b).

From the above it is clear that the IRBA is pursuing MAFR as a means of meeting multiple objectives, not just as a means of improving audit quality.

Of particular importance, especially when considering the responses received by various stakeholders to this paper, are the reasons given by the IRBA for why they believed auditor independence was a concern. The paper highlighted the following "threats and concerns" relating to the independence of auditors:

1. Familiarity threats between CFOs and incumbent auditors which impair independence;
2. Familiarity threat between audit committee chairs and incumbent auditors;
3. The regulator's inspection findings relating to ethical requirements at audit firms;
4. The long audit tenures of many audit firms with listed companies in South Africa; and
5. The state-owned Public Investment Corporation, the largest asset manager in the country, as well as the Auditor-General, raised concerns regarding the independence of audit committee members and audit firms.
   (IRBA, p.15, 2016b)

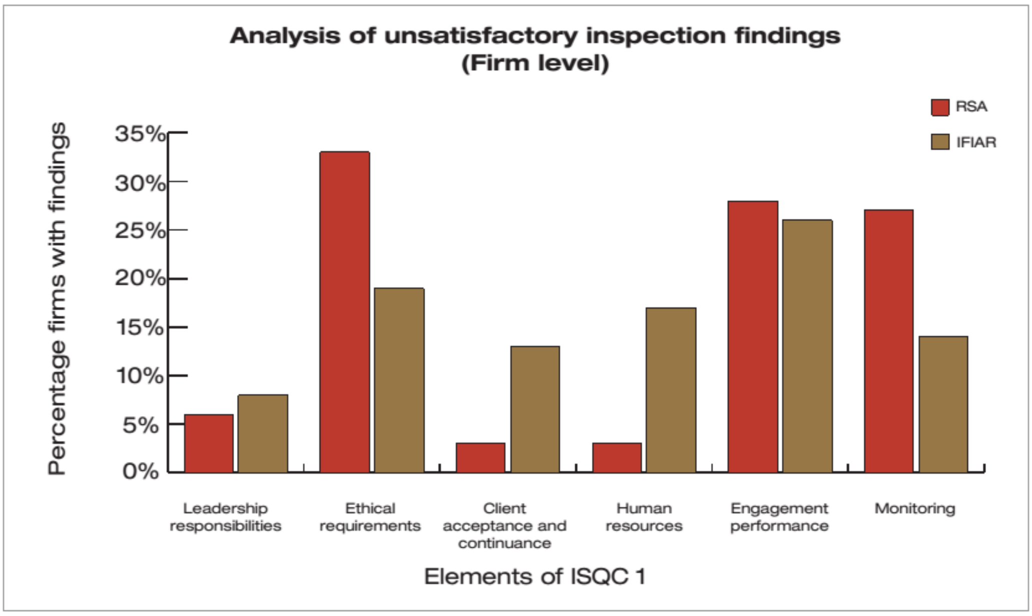
The paper did not provide much research to back up the concerns raised and this was a significant criticism of the paper as will be seen below. However, some evidence was provided for point 3 and point 4 above, as follows.

The IRBA Inspection Reports

Point 3 relates to the IRBA annual inspections on selected audit firms to evaluate their performance on a selection of audit engagements, as well as the design and effectiveness of their quality control policies and procedures. An annual report provides an analysis of key findings arising from firm and engagement inspections performed by the Inspections Department of the IRBA. The latest report was published in December 2015 and covers audits for the year ended 31 March 2015, and also includes an overview of the scope of the IRBA's inspections. (IRBA, 2015a)

The IRBA is concerned that a significant portion of the findings relate to relevant ethical requirements (refer below to Figure 2), and more specifically issues where independence may be considered the root cause. A root cause was identified as "Failure to fortify the importance of professional scepticism and the independence of the engagement team so as to overcome the threats that could develop as a result of their relationship with clients", as well as "Failure to strengthen and maintain independence as an underlying principle for high audit quality." (IRBA, 2015a)

Figure 2: Summary of 2014/2015 IRBA Public Inspections Report Findings



Source: IRBA 2014/2015 Public Inspections Report

The above findings shown in Figure 2 from the 2014/2015 Public Inspections Report indicates a significant breach by auditors in South Africa of ethical requirements, both relative to other issues, but also in the comparison made to International Forum of Independent Audit Regulators (IFIAR) Inspections Workshop. The IFIAR inspection findings are based on a survey of 29 member countries and present, as a percentage, the number of inspected firms with deficiencies found per ISQC1. It should be noted that the IFIAR results represent the largest six global network firms, whereas the results for South Africa span the entire population of large, medium and small auditing firms that were inspected.

As explained in the IRBA newsletter 32, the Inspection Committee reported on 37 audit firms and 375 audit engagement inspections for the 2014/2015 year (IRBA, 2015a). Most firms showed one or more deficiencies, including ethics (namely independence), engagement performance and monitoring, which require urgent improvement. A significant number of individual audit engagement files also showed deficiencies that need urgent attention. A total of 16% of firms and 6% of engagement partners were referred to the Investigating Committee of the IRBA due to fundamental or continued noncompliance with international auditing and financial reporting standards, professional codes and legislative requirements. The report also emphasises the need for audit firms to urgently address ethics and independence matters, as well as engagement quality. Based on the above findings, there clearly seems to be a problem with ethical contraventions by South African audit firms that needs to be addressed.

The results of these Public Inspections Reports, such as the latest summarised above, is the background to the concern raised in point 3 above. Clearly the results show areas of concern regarding the items tested.

Auditor tenure on the JSE

Regarding the concern raised in point 4, namely the length of audit tenures of many audit firms with listed companies in South Africa, the paper contained a table detailing the periods which some audit firms have provided audit services to JSE listed companies. There were 30 companies who had audit tenures exceeding 20 years and 20 companies with tenures between 10 and 19 years. According to the paper Deloitte Inc. had been the appointed auditor of Murray & Roberts Holdings Ltd. for 114 years, PWC Inc. of Naspers Ltd. for 101 years and KPMG Inc. of AECI ltd. for 91 years, to name the three longest tenures (IRBA, p.19, 2016b). The paper implied that these long audit tenures were a significant threat to auditor independence.

Lack of supporting evidence

At the end of the paper the regulator attempted to address some of the common concerns regarding MAFR, such as whether the current regulatory environment was sufficient, whether mandatory tendering was superior to MAFR, the potential to lose institutional audit knowledge and experience, the costs involved in implementing MAFR and the potential to lose professional judgement through regulation, to name a few. However, very little research and evidence was provided to justify the regulator's opinion that none of these concerns were either relevant or significant obstacles to MAFR. Overall, as is clearly evidenced by the official responses provided by key stakeholders in the MAFR debate, the lack of objective and academically verifiable research in the paper is seen as a serious flaw in the IRBA position on MAFR.

RESPONSES TO THE IRBA CONSULTATION PAPER

The IRBA collected responses to the consultation paper, with the deadline date of 20 January 2017. A brief analysis of some of the official key stakeholder responses will now be provided. A brief description of respondents are seen below

Stakeholder 1: The International Federation of Accountants (IFAC)
The IFAC is the global organization for the accountancy profession, comprising of over 175 members and associates in more than 130 countries (including South Africa) and jurisdictions, representing almost 3 million accountants in public practice, education, government service, industry, and commerce. The IFAC Board established the International Ethics Standards Board for Accountants (IESBA). The IESBA is the independent standard-setting body that serves the public interest by setting robust, internationally appropriate ethics standards, including auditor independence requirements, for professional accountants worldwide. The IESB compiled in the Code of Ethics for Professional Accountants which is the basis of the accountant and auditor ethics codes in South Africa.
The response from Mr Fayez Choudhury, the Chief Executive Officer of the IFAC, was reviewed.

Stakeholder 2: The JSE (Johannesburg Stock Exchange)
The JSE is the stock exchange where most of the largest companies in South Africa are listed. The exchange is owned and operated by the JSE Ltd.
The response from Mrs N. Newton-King, the Chief Executive Officer of JSE Ltd, was reviewed.

Stakeholder 3: The CFO Forum
The CFO Forum describes itself as a high-level discussion group formed and attended by the Chief Financial Officers of major JSE listed and larger state-owned companies with broad sectorial coverage ranging from financial services, mining, retail, media, telecoms, medical services and paper/packaging. Its aim is to contribute positively to the development of South Africa's policy and practice on financial matters that affect business on behalf of its members, who represent a significant part of South African business. The CFO Forum was created in 2011.

The response from Ms. KC Ramon, the Chairperson of the CFO Forum, was reviewed. Ms. KC Ramon is also the CFO and executive director of AngloGold Ashanti Ltd., a non-executive director on the boards of MTN Group Ltd. and Lafarge (France).

Stakeholder 4: The South African Institute of Chartered Accountants (SAICA)
SAICA is a professional accountancy body in South Africa, representing chartered accountants. All the registered auditors in South Africa are chartered accountants who are members of SAICA as becoming a registered auditor requires training first to be qualified chartered accountant through the SAICA training requirements. SAICA is an active organisation in the audit industry of South Africa.
The response from Mr Terence Nombembe, the Chief Executive Officer of SAICA, was reviewed.

Stakeholder 5: The “Big 4” Audit Firms, namely PWC Inc., Deloitte Inc., EY Inc. and KPMG Inc.
The commonly agreed and recognised distinction between the audit firms (Marx, 2009; Rapoport, 2016) has been used in this study and is as follows:

- “Big four” audit firms refer to the largest four accounting and audit firms globally, namely Deloitte Inc., PricewaterhouseCoopers Inc. (PwC), Ernst & Young Inc. (EY) and KPMG Inc.. These four firms are also referred to as “large-tier” firms (ICAEW, 2016).
- The non-big four firms are either mid-tier or small-tier firms depending on their respective global size, global presence and capabilities as an audit firm in terms of resources (ICAEW, 2016; Rapoport, 2016).

All four of these audit firms provided an official response to the IRBA. The responses were written by Dion Shango (CEO of PWC Southern Africa); Lwazi Bam (CEO of Deloitte Africa); Michael Bourne (EY South Africa Professional Practice Director); and Michael Oddy (KPMG South Africa Head of Audit).

Responses from the following stakeholders have been reviewed (Table 5) for the purpose of this summary discussion:

Table 5: Summary of the key issues identified in response letters

Position	
1	Disagrees with the IRBA that MAFR will achieve the objective of improving audit quality.
2	Criticised the IRBA Consultation Paper for its lack of supporting evidence and research to justify its conclusions on MAFR.
3	Identifies that research conducted internationally does not support the notion that MAFR will improve audit quality.
4	Concerns raised regarding the IRBA's desire to achieve multiple objectives with MAFR, namely improved audit quality, transformation goals and reduced audit industry concentration. The concern is that pursuing multiple objectives with MAFR is not appropriate.
5	Calls for further research regarding the link between MAFR and audit quality before implementing the MAFR in South Africa.

	Position:				
	1	2	3	4	5
The IFAC	Neutral (N2)	Yes	Yes	Yes	Yes
The JSE	Neutral (N2)	Yes	No comment (N1)	Yes	Yes
The CFO Forum	Neutral (N2)	Yes	Yes	Yes	Yes
SAICA	Neutral (N3)	Yes	Yes	Yes	Yes
PWC Inc.	Yes	Yes	Yes	Yes	Yes
EY Inc.	Yes	Yes	Yes	Yes	Yes
Deloitte Inc.	Yes	Yes	Yes	Yes	Yes
KPMG Inc.	Yes	Yes	Yes	Yes	Yes

N1	The JSE summarised responses received from 63 JSE-listed companies. In these comments from companies there was overwhelming push-back against MAFR stating that research to date was insufficient and highlighting the internationally recognised strength of South Africa's auditing and reporting standards. However, these were not the opinions of the JSE but rather those who responded to the JSE's request for comment from listed companies.
N2	The response letter did not agree nor disagree with IRBA's opinion that MAFR would improve audit quality. However, it did express multiple concerns regarding the deficiencies of the IRBA consultation process and the unsustantiated claims and significant lack of evidence supporting the conclusions reached by the IRBA in the consultation paper.
N3	SAICA did not agree nor disagree with IRBA's opinion that MAFR would improve audit quality. However, SAICA was against implementing it within the timeframe proposed by the IRBA. SAICA's suggestion was to wait to understand the impact that recent changes (such as the new auditor report and the inclusion of the period of tenure in auditor reports) have had in the South African context, as well as to perform further research on MAFR.

Brief summary of the IFAC response
The IFAC was expressly neutral on whether MAFR was appropriate in South Africa, making it clear that they believed the most effective approach to regulation will vary between jurisdictions and therefore there is no "one single approach" that can be applied internationally. However the IFAC cautioned the IRBA not to try replicate arrangements from another jurisdiction and apply them to their own, without careful consideration and analysis of whether the arrangements are the most effective and appropriate (Choudhury, 2017). This caution was in response to the emphasis the IRBA placed on the European rulings on MAFR.

Significant concern was expressed that MAFR was being pursued by the IRBA for multiple reasons, not only to improve audit quality. The concern in this regard was that competing objectives do not impede the outcomes of initiatives (Choudhury, 2017).

The IFAC emphasised the fact that evidence does not clearly support the notion that mandatory
audit firm rotation will enhance audit quality. Further research is needed, including research into the impacts of audit partner rotation, to determine whether it has led to an improvement in audit quality (Choudhury, 2017). The fact that the consultation paper lacked supporting evidence for its conclusions was of primary concern.

The IFAC attempted to correct the IRBA's assertion that there are increasing demands for auditors to be more independent. The IFAC argued that this is not true. The demands are for enhanced audit quality, not simply auditor independence, and this distinction is very important.

Brief summary of the JSE response
The JSE was expressly neutral on whether MAFR was appropriate in South Africa, preferring rather to provide the IRBA with summary arguments provided to the JSE as a result of its own consultation process with companies listed of the JSE exchange. However, the JSE letter did state that it believed "that an alternative course of action is necessary" (Newton-King, 2016).

The JSE reported that 63 JSE listed companies, representing 45% of the exchange by market capitalisation, provided it with comment. The overwhelming majority of these comments raised serious concerns about the regulator's decision to implement MAFR. According to the summary comments provided in the JSE letter the companies were concerned that the research was insufficient to make the conclusions that the IRBA had made and that MAFR was not necessary in South Africa considering the international reputation of its audit standards.

The following comment, made by the financial services group Sanlam, was chosen specifically as a quote in the JSE letter:

> *"We conduct on average 150 investor meetings a year, which include most of the global institutional investors. In many of these meetings SA corporate governance, standards of financial reporting and quality of auditing are applauded and ranked as amongst the best in their experience dealing with companies globally. This provides*

support that South Africa should not blindly follow other countries in applying MAFR as our governance are already more stringent than many other jurisdictions." (Newton-King, 2016)

A particularly important point made by the JSE was that it believed that the IRBA public inspections report, which the IRBA uses as a key reason for the need to implement MAFR, indicated problems of audit quality and not auditor independence. Therefore merely rotating the audit firms without addressing any underlying concerns with the audit firm would be inappropriate (Newton-King, 2016). This reasoning is significant as audit quality is not only the product of auditor independence, as shown by Tepalagul & Lin (2015). Audit quality concerns, as raised by the IRBA in the latest public inspections report as summarised above in Figure 2, could be the result of deficiencies in the auditor capabilities, not auditor independence. If this is the case, as the JSE suggests, then MAFR would be an inappropriate response to the problem.

The JSE recommended that the IRBA start the consultation process afresh by issuing a response to the many concerns being raised after the issue of the consultation paper in October 2016. The further recommendation was that all public hearings and comments received should be a matter of public record and not kept confidential (Newton-King, 2016).

Brief summary of the CFO Forum response
As is seen above in Figure 1, the considerable majority of JSE companies are against the implementation of MAFR.

The most important point made by the CFO Forum was in regard to there being no clear demonstration of the magnitude and extent of research conducted, and evidence supporting, the views and conclusions reached in the consultation paper. The following claims were argued to unsubstantiated:

- There are fundamental concerns with auditor independence in South Africa.
- The current measures in place (Code of Professional Conduct, Mandatory audit partner rotation, prohibition on non-audit services and Disclosure of audit tenure rule) have failed to address concerns with auditor independence.
- The extent of IRBA inspections conducted and the quality of the evidence obtained; provided sufficient substantial proof to conclude that there are significant deficiencies in auditor independence in South Africa.
- MAFR will be the best solution to address the significant threats to auditor's independence that have been identified.
- The proposed MAFR's effectiveness in addressing the identified issues can be evidenced by the research and findings.
  (Ramon, 2016)

In addition to the lack of evidence supporting the above conclusions, the CFO Forum specifically objected to many details and statements made in the consultation paper, going so far as to label some of them incorrect and misleading. The consultation paper referred to the audit failures in companies such as Regal Bank, Leisurenet, Randgold and other businesses. The CFO Forum challenged that the paper failed to demonstrate that these failures could have been avoided had there been MAFR in place.

The role of professional judgement and company decision making was also stated as an argument against MAFR. The CFO Forum was of the opinion "that the IRBA should not find itself entering an area where it effectively regulates companies and decisions made by companies" (Ramon, 2016). MAFR was seen as regulating an aspect of company affairs, namely audit firm appointment, which should remain the discretion of the company and its stakeholders, and not regulated by the audit regulator.

Brief summary of the SAICA response

SAICA is not explicitly for or against implementing MAFR in South Africa. However, they are against implementing it within the timeframe proposed by the IRBA i.e. effective in 2023. The SAICA response cautioned the IRBA to rather wait to understand the impact that recent changes to the audit report (Revised ISA 700, 701, 705 and 706) will have on audit quality, such as the new auditor report format required by the international standards (effective December 2016) and the inclusion of the period of tenure in auditor reports (SAICA, 2017). The new audit report format allows the users of financial statements to better understand the audit work performed, especially through the disclosure of key audit matters, not previously provided to the public by the auditor. The auditor tenure rule is a South African (not international) regulation that now requires the auditor to publically disclose in the auditor report the number of years in which they have been appointed auditor for the company.

SAICA also requested, echoing other stakeholder responses to the consultation paper, the IRBA to provide for the public consultation process to be extended, and additional independent research be commissioned on the feasibility, impact and cost-benefit of any additional regulations on auditor independence (SAICA, 2017).

SAICA presented to the IRBA the key feedback which it had received from its members, who represent the chartered accountants and auditors in South Africa, as well as the key feedback from a "MAFR Indaba" that it hosted to allow frank debate and discussion with various stakeholders on the topic. In terms of the feedback from SAICA's members, collected via an extensive survey of the chartered accountant profession, there was a considerable degree of mixed opinion. However, the following generalisations can be made:

- The overwhelming majority of SAICA members agreed that further strengthening auditor independence was the most important objective of the IRBA reform process.
- Respondents expressed support for the IRBA's objectives, but expressed majority views that MAFR may not necessarily achieve the intended objectives via MAFR.
- Possible challenges or concerns or disadvantages exceed the potential benefits or advantages, and there should be a greater focus on enhancing measures that already exist rather than adding additional measures, such as MAFR.
- The issues involved in implementing a measure such as MAFR are complex and cannot necessarily be reduced to a quantitative "Yes" or "No" answer.
  (SAICA, 2017)

After the MAFR Indaba SAICA stated that there was an "overwhelming request" for greater consultation, transparency of information and research on MAFR before any final decisions are made to change legislation. The reasons provided by the IRBA consultation paper were not persuasive and significantly lacking in evidence. Again, the call for further research was clear in the response to the IRBA.

SUMMARY OF THE "BIG 4" AUDIT FIRMS' RESPONSES

The "Big 4" audit firms, namely PWC Inc., Deloitte Inc., EY Inc. and KPMG Inc., each provided a detailed response letter to the IRBA consultation paper. Referring to Figure 1 above, 75% of big 4 audit firms, according to the IRBA consultation paper, were against MAFR, with 25% in favour. As already mentioned, this suggests that one of the four firms is in favour of MAFR in South Africa. However, this is difficult to reconcile with the letters provided by these firms in response to the consultation paper. All the firms rejected the conclusion of the IRBA, claiming that the regulator did not present a balanced and substantiated argument in favour of MAFR. All the big 4 firms believed that MAFR would decrease audit quality in South Africa.

In particular, in its response against the regulator's position on MAFR, Deloitte Inc., one of the large international audit firms, outlined concisely the range of existing measures in South Africa aimed at audit quality and auditor independence, namely:

- Engagement partner rotation;
- Independent audit committees to ensure auditor independence;
- Appointment of the external auditor by the shareholders;
- Pre-approval of non-audit services by the board and audit committee;
- The prohibition of certain non-audit services (both by section 90(2) of the Companies Act and the Code of Professional Conduct);
- Independent Regulatory Oversight - regular external inspections of audit firms by the IRBA, as well as the PCAOB (the USA Regulator), which has resulted in positive changes to audit firm oversight and improvements in audit quality; and
- Internal engagement quality control reviews in terms of ISQC 1 which strengthens audit quality
  (Bam, 2017)

In the view of Deloitte Inc., as well as the other large international audit firms (see below), the above measures and principles are sufficient to ensure auditor independence.

The following statements in some of the response letters serve as an appropriate summary of all four firms' aversion to MAFR:

> *"We do not believe that MAFR increases auditor independence or enhances audit quality. There is no empirical evidence that it does. In addition, it does not improve market concentration. MAFR has been implemented and repealed in many other markets, due to not achieving on these objectives and in having unintended consequences including having counter effects than intended."* (Shango, p.5, 2017)
>
> *"Forcing changes in the appointment of audit firms will more likely increase instances of the types of deficiency that IRBA maintains it is aiming to resolve. We believe that it would be more appropriate to first try other available and less interventionist solutions before taking the more heavy-handed approach of introducing MAFR which is expected to significantly alter the efficiency of audit markets in South Africa in a manner that will affect not only audit firms but also the users of audit services in our capital markets"* (Bourne, p.4, 2017)

"We support any measure that enhances audit quality and auditor independence, however there is insufficient evidence that a problem currently exists. Furthermore, there is insufficient evidence that the introduction of the said measure will result in the desired outcome of enhanced quality as a result of improved auditor independence. We do not believe that the IRBA has provided compelling evidence that there is an auditor independence problem in South Africa and that this is negatively impacting the profession in terms of poor audit quality and challenge to companies in the preparation of annual financial statements." (Bam, p.1, 2017)

"Based on the current information included in the consultation paper there is no evidence to support that MAFR enhances auditor independence given the extensive governance measures already in place in South Africa. Based on the information provided in the consultation paper we firmly believe that:

- *The consultation process has been flawed and rushed;*
- *Evidence of research conducted on the viability of MAFR is lacking;*
- *An impact analysis around the unintended consequences of any possible implementation of MAFR needs to be performed;*
- *Any proposed MAFR provisions need to be dealt with in the Companies Act, as the greatest impact is beyond the auditing profession, and a thorough stakeholder consultation process is thus required;*
- *MAFR will negatively impact audit quality; MAFR will not enhance auditor independence;*
- *MAFR will add huge costs to an economy that is already under significant pressure; and*
- *MAFR will greatly complicate the process of appointing consistent global auditors for multinational companies."*
  (Oddy, p.5, 2017)

The following is a summary of common themes contained in the detailed response letters provided by these four firms to the IRBA consultation paper.

Transformation and market concentration

The four firms were all in agreement of the need to pursue transformation in the audit industry but were concerned that MAFR was an inappropriate means to do so. There was some confusion, based on previous communication by the IRBA read together with the consultation paper, whether and to what extent transformation and market concentration were still stated objectives of the IRBA with MAFR. It does appear that these two additional objectives are no longer a priority for the IRBA to achieve using MAFR, based on the statements contained in the consultation paper.

The firms noted that statistics that prove the progress they have made in transformation objectives over recent years, indicating that MAFR should not be used as a tool to transform the audit industry. Transformation would be best achieved within the firms and with existing regulations, as it is being done in other industries.

There was an appeal for the IRBA to provide evidence to support their belief that MAFR will *"solve market concentration concerns"* (Shango, 2017). The PWC Inc. response letter quoted a FTSE 100 Auditors Survey to make the argument that MAFR would not substantively change the market share of the Big-four firms:

> *"Despite changes to UK audit rules requiring more frequent audit tendering by listed companies, there has not been any substantive change in the share of FTSE 100 audits outside the Big-four firms. Even allowing for the audit switches which have been announced, but will not come through until subsequent year-ends, there has not been a radical shift."* (as quoted by Shango, p.3, 2017).

According to Bourne from EY Inc. (2017) the small and medium sized audit firms will be forced to compete with larger firms to win new engagements as has been seen in the United Kingdom, India, Italy and Brazil. In the UK FTSE 250 during the last few years, according to Bourne (2017), non-Big 4 firms have seen a net loss of five audits, which makes up about 30% of their market share.. Oddy from KPMG Inc. (2017) states that preliminary evidence in Europe indicates that market concentration in the EU has increased rather than decreased as a consequence of MAFR.

Negative impact on the audit profession

The four firms are concerned about the impact of MAFR on the people attracted to and retained in the audit profession. They expressed a need to grow the pool of audit resources and skills in the country and this will have an effect on audit quality in years ahead. According to Shango (2017) from PWC Inc., MAFR will have a negative impact on the ability of the profession to attract and retain the best talent, which will have a negative impact on audit quality.

An appeal was made to the IRBA to recognise that both large and mid-tier audit firms are facing staffing issues and struggling to retain and grow talent in an accounting field that was becoming less appealing to chartered accountants. This was especially true of retaining black chartered accountants in the profession. The degree of risk and regulation in the audit industry was described as not being attractive to a new generation of auditors and financial professionals and the view is that this will only be exacerbated as accounting continues to be one of the top degree in demand by employers. MAFR would, in the opinion of these firms, exaggerate the auditing skills shortage, create more pressure on auditing staff and demand of the firm's resources that do not exist, placing more strain in what one firm described as a fatigued profession. Ultimately these pressures will result in a reduction in audit quality. According to Shango from PWC Inc. (2017) *"there is a substantial human element in imposing MAFR"*. Bourne from EY Inc. (2017) agrees, making the link to audit quality by stating that *"the implications of MAFR for talent retention, people, staffing, and resources make it more difficult to manage risks and to ultimately deliver sustainable audit quality"* (Bourne, p.7, 2017).

According to Bourne from EY Inc. (2017), *"attracting and then retaining highly talented personnel at the critical partner level is already a challenge given the regulatory and declining margin environment in which auditors are operating. We are convinced that by adding MAFR we will find over time that the quality of work delivered in an increasingly* *complex technical and litigious environment by a profession which proudly associates itself with the number one ranking in the world, will decline."* (Bourne, p.7, 2017)

The firms explained that if MAFR is implemented, companies will necessarily put audits out for tender when the time to rotate approaches. There will therefore be a significant added cost to the audit firms to tender more regularly to secure appointments. These costs were described to vary depending on many factors such as the size and complexity of the company, however they were considerable. Some firms emphasised that this additional cost to the firms would be unmanageable from a business perspective.

In addition to the burden on the audit profession, Bourne from EY Inc. (2017) was of the opinion that MAFR would introduce significant additional cost and administrative burden in the wider South African economy. Oddy from KPMG Inc. (2017) explained that MAFR will result in regular audit tenders being required, each of which will absorb significant amounts of investment in time of boards, audit committees and executive management in the tender process as well as evaluation of the prospective auditor. This valuable management time was considered to be a distraction from running the business.

Some of the firms provided estimates of the costs that would be incurred. Shango from PWC Inc. (2017) described the total transition costs (proposal costs plus costs to perform the audit) of a new listed audit client have equated to more than the first year's audit fee. Bam from Deloitte Inc. (2017) stated that in their experience the securing of an audit tender for a top 100 JSE company costs approximately 30% of the annual audit fees. For clients outside the top 100 they estimate the costs at approximately R500,000 per tender (Bam, 2017). Further to this Bam from Deloitte Inc. (2017) explained that in their experience in the first year of the audit an additional 30% to 50% of the audit fee is spent on set-up cost to understand the client's business, a cost not borne by the client but by the audit firm. Oddy from KPMG Inc. (2017) estimated tender/proposal costs for new appointments to be in the region of 10% to 30% of the first year audit fees. Oddy (2017) went on to explain that this means that in instances where a number of firms tender for a new audit (which would normally be the case), the collective cost of tendering could amount to as much as the entire first year audit fee. Transitioning costs in the first year typically amount to between 40% and 70% of the first year audit fees.

The firms explained that these costs will have a negative impact on the ability of firms to invest in methodologies, transformation, and attract talent. According to Bam from Deloitte Inc. (2017), the firms have a very limited ability to absorb these costs and it would require spending in areas such as training and bursaries to be redirected to tendering for work, given the pressure on financial results.

This will ultimately lead to a deterioration in audit quality. The nature of the costs were described by Oddy (2017) as follows:

- Senior resource time investment in getting to know the client
- Time spent on meetings both locally and internationally with management
- Time spent on understanding the business and industry
- Industry specialist involvement including technical input
- Marketing and proposal presentation costs
- National and international travel costs

Bourne from EY Inc. (2017) stated that available evidence shows the estimated cost of introducing MAFR in the EU may exceed 16 billion euros, and while the expected cost to South African companies would will be lower, the costs associated with changing auditors would come at a time when companies are struggling to grow in an economic environment which is expected to continue to be sluggish for the next few years. Affected companies will also incur increased costs principally due to the loss of management time relating to both the tender process and the steep learning curve of the incoming auditor.

Oddy from KPMG Inc. (2017) raised an interesting point, claiming that MAFR will promote a sales culture rather than a focus on audit quality. This would result in auditors directing more experienced resources to winning new audits rather than focusing expertise on performing a quality audit.

Comparison with similar markets
The firms noted, as were other respondents to the IRBA paper, the ranking of South Africa's auditing and accounting standards in the World Economic Forum (WEF) annual rankings. For example, in 2016 South Africa was ranked number 1 for the 7th year in a row by the World Economic Forum for its strength in auditing and reporting standards (Oddy, 2017; Shango, 2017). This was argued to be a reason not to pursue changes to current regulations in South Africa.

However, PWC Inc. pursued this reasoning further, noting that of the top twenty markets ranked by financial market development by the WEF, of which South Africa is placed 11th, thirteen countries have decided not to adopt MAFR. Of the remaining six countries, five have had to adopt MAFR as a result of being part of the EU, all of whom had not applied MAFR before or had rejected it. The other one of the six was China (Shango, 2017). According to Shango from PWC Inc. (2017), none of the top ten countries, South Africa being ranked 11th, which includes the United States, New Zealand, Singapore, Hong Kong, Australia, Canada and Switzerland apply MAFR, except for Finland, Norway and Sweden. However, these three countries are forced to apply MAFR by virtue of being part of the European Union. The argument was simply that other comparably advanced capital markets have chosen not to adopt MAFR.

Table 5: Top 20 countries ranked by financial market development by the WEF, and their corresponding position on MAFR

New Zealand	1	Considered MAFR and rejected
Singapore	2	Considered, implemented and repealed
US	3	Considered MAFR and rejected
Hong Kong	4	Considered MAFR and rejected
Finland	5	Did not apply MAFR – now apply by virtue of being under the EU
Australia	6	Considered MAFR and rejected
Canada	7	Considered MAFR and rejected
Switzerland	8	Do not have MAFR
Norway	9	Did not apply MAFR – now apply by virtue of being under the EU
Sweden	10	Did not apply MAFR – now apply by virtue of being under the EU
South Africa	11	Do not have MAFR – now considering
Panama	12	Do not have MAFR
Malaysia	13	Considered MAFR and rejected
Luxembourg	14	Did not apply MAFR – now apply by virtue of being under the EU
China	15	Do apply MAFR
United Kingdom	16	Did not apply MAFR – now apply by virtue of being under the EU
Japan	17	Do not have MAFR
Guatemala	18	Do not have MAFR
Israel	19	Considered MAFR and rejected
Germany	20	Did not apply MAFR – now apply by virtue of being under the EU

Source: Shango PWC Inc. Letter, p.14, 2017

The role of other regulators and legislative change

An important point raised by the audit firms and also by the CFO Forum was that since the Companies Act regulates the appointment and removal of auditors, audit partner rotation, and the responsibilities of the Audit Committee, the Companies Act is the most appropriate statute to also consider the implementation and regulation of MAFR. The Companies Act contains a range of measures to regulate the appointment of the auditor (sets out the process (section 90). The Companies Act also provides for the disqualification of the auditor where certain non-audit services are provided (section 90(2)), regulates the rotation of the designated auditor partner (section 92) as well as the resignation of the auditor and vacancies (section 91 and section 89). Considering this, MAFR should be a debate lead by the Specialist Committee on Company Law, and involve a much wider consultation process and legislative change, rather than be a regulation issued by the IRBA (Bam, 2017; Ramon, 2016; Shango, 2017).

According to Bourne from EY Inc. (2017), it would be inappropriate to drive changes in areas that are more appropriately addressed through a review of the primary legislation which is the Companies Act. Such changes ought to be led by the Department of Trade and Industry (DTI) as the government department responsible for administering the Companies Act as part of a legislation review conducted with full transparency and public participation which is normally required for all amendments to legislation.

Deloitte Inc. made the argument that the introduction of MAFR will inevitably affect the rights of shareholders to appoint an auditor of their choice, and impact the rights and responsibility of the audit committee to act in the best interest of the company and nominate an independent auditor of their choice. Therefore, in effect, the introduction of MAFR amounts to the regulation of companies, their shareholders and audit committee, rather than the regulation of auditors (Bam, 2017).

Response to IRBA's Public Inspections Report findings
The audit firms expressed disagreement with the conclusion of the regulator that its public inspections reports findings could be used as an argument in support of MAFR.

The argument was made that the IRBA inspection report findings do not all relate to independence concerns and that the report provides no contextualisation as to whether or not these findings relate to listed company audits. If the findings relate to unlisted public and/or private companies performed by smaller audit firms, then the MAFR proposal will not address these concerns (Bam, 2017). According to Shango from PWC Inc. (2017), less than 5 % of all investigations initiated related to allegations of breaches of independence, and very few sanctions have been imposed by the regulator for breaches of independence in the period since 2001. Therefore the audit firms are of the opinion that the public inspection findings do not alone warrant a conclusion that the current measures in place to ensure auditor independence do not work.

EY Inc. made the argument that the consultation paper casts undue scepticism and uncertainty about the quality of the work of larger audit firms, creating a perception in the public's mind that there is a lack of independence in these firms. However, the evidence does not allow these conclusions and the paper unnecessarily serves to undermine public confidence in Registered Auditors (Bourne, 2017).

Professional judgement versus regulation
All four of the firms pointed out that MAFR would regulate an area that was best kept as a matter of professional judgement. The professional judgement exercised by the audit committee especially, with respect to appointing the external auditor and assessing the independence and suitability of the audit partner and audit firm, was put forward as a reason not to regulate firm rotation. MAFR was seen to undermine this responsibility and remove the audit committee's freedom to decide which audit firm best meets the needs of the company and its shareholders. MAFR would conflict with the section 94 statutory responsibilities of the audit committee under the Companies Act. According to Shango from PWC Inc. (2017), *"MAFR reduces the audit committee's ability to fully discharge its oversight responsibilities and in turn disenfranchises shareholders' ability to obtain the highest quality audit in the most efficient way."* (Shango, p.4, 2017)

As per the current regulations and principles governing auditor independence in South Africa, the shareholders are ultimately responsible for appointing the audit firm, under the judgement and guidance of the audit committee, comprising independent non-executives. In addition, the auditor self-assesses their degree of independence as a matter of professional judgement. According to Bourne from EY Inc. (2017), MAFR will disenfranchise shareholders and undermine the authority of those charged with corporate governance. By forcing companies to change auditor, audit committees and shareholders are unable to retain the best available firm for the job.

KPMG Inc. made two important points in regards to professional judgement. Firstly, according to them, MAFR would undermine the audit committee's ability to choose the best auditor for the job, as well as determine whether a change in auditor, and the associated timing of this decision, is in the best interest of the company and its stakeholders. Secondly, MAFR will remove an important mechanism of an indication of issues at a company and therefore conceal problems between a company and its auditor (Oddy, 2017). This is because, as Oddy (2017) describes, the audit firm's decision not to accept a re-appointment might indicate concerns regarding the integrity of management or the operations of the company. Therefore this aspect of professional judgement of both sides of the engagement may be lost or at least diminished under a system of MAFR.

The Institute of Directors in South Africa have publicly expressed their views to this effect via a letter to the IRBA in September 2016. This letter was written by Mr Mervyn King, the chairman of the King Committee, responsible for the production of the King Codes on Corporate Governance. The Institute of Directors in South Africa is also against the implementation of MAFR. According to them MAFR will, among other problems noted in their letter, conflict with directors' duty to act in the best interest of their company if they believe the incumbent will provide a better quality audit than other available firms (King & Natesan, 2016).

Loss of institutional knowledge

Although this sentiment was mentioned by the other firms, it was a key argument in the EY Inc. letter. According to Bourne from EY Inc. (2017) it is self-evident that audits in the early years of the audit relationship struggle to attain the quality standard of the audits in later years, especially in complex multi-national companies. As the auditor and the audit team gain experience of the client, quality increases. More frequent firm rotation through MAFR will consequently give rise to reduced audit quality. Bourne (2017) makes the point that auditors of insurance companies and banks will attest to the fact that it takes at least three years, if not as much as four or five years, to obtain an adequate knowledge of the client and industry. Oddy from KPMG Inc. (2017) claimed that audit committee chairs have indicated that this learning curve can take up to three years.

"Rotation of the whole firm in a small country like South Africa will result in a completely new team with virtually no knowledge of the client's systems, people and business, conducting audits of lesser quality for at least the first two to four years." (Bourne, p.7, 2017)

A related issue was the idea that MAFR will undermine industry specialisation. Many of the JSE-listed entities are complex and specialised businesses, such as banks, insurers, mining or telecommunications companies, which also come with complex industry-specific regulations. The argument was that MAFR will make it difficult for a firm to build up industry specialisation during the ten year rotation period and this will negatively affect the quality of the audit of complex and large businesses (Bourne, 2017; Oddy, 2017).

Better alternatives to MAFR

All the firms believe that existing regulations and standards were sufficient and that MAFR was unnecessary and potentially damaging to audit quality. The current regulation considered most important was the existing Key Audit Partner rotation rules, which required rotation every five years. These were expressed as *"more than adequate"* to bring *"fresh eyes and ears"* to the audit engagement (Bourne, 2017). However, some constructive recommendations were provided if changes were to be made. EY Inc. expressed well the common opinion of the big four firms, proposing the following measures for the regulator to consider as better means of preserving auditor independence:

- Continued development and enforcement of the Code of Professional Conduct.
- Further development of robust Independent Regulatory Oversight.
  Examples of such regulators were the IRBA through the public inspections process and the JSE through the listing requirements. Continued investment was recommended in developing an experienced, knowledgeable IRBA inspectorate to carry out inspections of all audit firms.
- Effective and independent Engagement Quality Control Review (EQCR).
  The EQCR process within audit firms plays a significant role in ensuring audit quality by providing an independent evaluation of the key judgments made. This task is carried out by the engagement quality control reviewer who is experienced and whose role is to challenge the opinion of the key audit partners.
- Stronger Audit Committee Oversight of Auditors
  Audit committees that are truly independent and financially experienced will constitute an objective challenge to management and apply professional judgement, as is required in terms of the Companies Act, to assess the independence of the auditor. Improving the role and functioning of listed company audit committees would provide the IRBA with the controls they are seeking to promote auditor independence.(Bourne, p.2-3, 2017)

To summarise, the comments from the big four firms in this regard show the degree of disagreement and contention with the IRBA position as presented in the consultation paper:

> *"Given the low instances of independence breaches documented and sanctioned by the IRBA, the adverse effect of MAFR does not appear proportionate to the objective it seeks to achieve, and the purpose may be achieved by less restrictive means, yet probably more impactful."* (Shango from PWC Inc., p.13, 2017)

> *"The Paper presents a biased argument in favour of MAFR. There seems to be no independent and objective evaluation of the arguments for or against the introduction of MAFR, the positive and/or negative experiences in other jurisdictions, or any alternative measures in lieu of MAFR."* (Bam from Deloitte Inc., p. 6, 2017)

> *"The consultation process has been flawed and rushed" and "evidence of research conducted on the viability of MAFR is lacking."* (Oddy from KPMG Inc., p.5, 2017)

CONCLUSION

There is considerable opposition to MAFR and its intended timeline outlined by the IRBA. Of the organizational responses analysed, none are explicitly in favour of currently adopting MAFR in South Africa. All the responses stated that more research is required and more evidence should be accumulated to justify the statements made in the IRBA consultation paper. In addition, the large audit firms are clearly against MAFR in principle. These firms have provided considerable arguments against MAFR and these need to be considered and addressed before a final decision is made to change the current regulations.

The responses in the comment letters from the big four have implications for further research. As this is a topical matter and of significant importance to the auditing profession, it would be of great benefit to assess other feedback from those in industry, practice and other relevant accounting bodies (other than the big four firms). This analysis of the comment letters indicates that further research should be undertaken by the IRBA before proceeding with IRBA's proposal for MAFR. The responses of various stakeholders should be appropriately analysed and responded to, especially in the context of international research findings on MAFR.

Unfortunately the research was limited to the comment letters that were obtained and therefore is by no means an exhaustive analysis of the responses. Many other stakeholders, such as medium sized firms, did not make their submissions (if any) publically available. The IRBA has also kept all submissions confidential.

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AUD024 Integrating reporting practices and King III vs King IV: Combined assurance

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ABSTRACT:

The objective of this paper is twofold: it aims, firstly to provide evidence on the <IR> practices at the top 20 listed companies in South Africa based on King III. Secondly, it aims to investigate the changes required in the current integrated reports based on King III to take into consideration the requirements of the new King IV, specifically focusing on the combined assurance model. With the release of the new corporate governance code, King IV comes the increased focus on combined assurance and integrated reporting. Furthermore, greater emphasis will be placed on providing assurance on the reliability of external reporting. The ability of the combined assurance model to provide assurance on the integrated report will greatly depend on the value placed on this model by the governing body.

Due to the lack of academic research, dealing directly with the combined assurance model, an exploratory research design was followed. The paper takes the form of qualitative study through content analysis of the integrated reports of the top 20 companies listed on the Johannesburg Securities Exchange (JSE) as at 31 December 2015.

The main findings where that a majority of the JSE top 20 who produced an integrated report referred to the combined assurance model but did not explain the application of the model in the business. Furthermore, the companies did not indicate who was involved in the different lines of defence in terms of the combined assurance model; however, only a few stated who was involved in the credibility of the integrated reports. The reporting of the companies' combined assurance practices varies from excellent where the whole model was reported on to poor consisting of a one sentence mention of its existence. These findings provide support for the recommended practices of King IV that each company should design and implement a combined assurance model to cover risks and material matters. Furthermore, these findings shed new light into the exploration and development of assurance and other credibility-enhancing mechanisms for <IR>, of interest to both the International Integrated Reporting Council (IIRC) and the International Auditing and Assurance Standards Board (IAASB) Integrated Reporting Working Group**.**

Key words: Combined Assurance, Integrated Report, King IV, King III.

1. INTRODUCTION

The 2008 global financial crisis and the collapse of companies indicated that traditional annual reporting no longer sufficiently addresses risks, regardless of the length and complexity of these reports (WBCSD, 2014). To address the traditional annual reporting concerns the King III report introduced the concept of Integrated Reporting, (with the generally accepted acronym <IR>) to increase the trust and confidence of its stakeholders and the legitimacy of its operations (IoD, 2009). <IR> is a market-led response to the need for evolution in corporate reporting in terms of which companies demonstrate their accountability to stakeholders (Adams, 2015; Flower, 2015). The reporting model that organisations are using does not take into account major emerging trends that change the way in which organisations are conducting business, are creating value and are expected to report (IIRC, 2011).

Since King III introduced the concept of <IR> to South Africa in 2009, the understanding of <IR> evolved significantly (Deloitte, 2016). The international development of <IR> contributed to the paradigm shift of silo reporting to <IR> in the corporate world. In addition, the development of <IR> also contributed to one of the concepts that form part of the King IV philosophy: integrated thinking (Deloitte, 2016; IoD, 2016). King IV is written through the lens of the six capitals as set out in the IIRC framework that is financial, manufactured, human, intellectual, natural and social and relationship capital (IoD, 2016). Furthermore as mentioned in King IV's framework it includes the "three shifts" in terms of global economic governance, from financial capitalism to inclusive capitalism, from short-term capital markets to long-term sustainable capital markets, and from silo-reporting to <IR> (IoD, 2016). These three shifts formed the foundation of King IV (IoD, 2016). For this paper's purpose, the shift from silo reporting to <IR> will be focused on. Accordingly, one of the changes that the latest King IV report focuses on is the positioning of the integrated annual report as the first reference point for stakeholders to understand how the organisation creates value (IoD, 2016). Furthermore, the thinking of an integrated report has evolved since its introduction in King III and had to be brought in line with the International Integrated Reporting Council (IIRC) framework's concepts and principles (Deloitte, 2016).

King III also introduced the concept of a 'combined assurance model' (IoD, 2009). The introduction of combined assurance was to reduce duplications in audit processes through better coordination of the assurance providers. In addition, the combined assurance model's objective is to enhance the assurance coverage obtained from the three lines of defence in King III, which is management, internal assurance providers and external assurance providers (IoD, 2009). With the release of King IV - the combined assurance concept expanded to incorporate all assurance services. King IV, that is also principles-based, does not prescribe the design of the combined assurance model but makes provision for the governing body to exercise judgment in this regard (IoD, 2016). It is important that credibility-enhancing mechanisms be implemented to ensure that reliance can be placed on the integrated reports (IAASB 2016). Without such mechanisms, there is the possibility for these reports to be nothing more than marketing or greenwash documents. King IV, introduces the importance of the combined assurance model in achieving credibility over the integrated report (Deloitte, 2016).

There is a growing body of research that examines the development, the pioneers of integrated reporting and regulatory developments (De Villiers, Rinaldi & Unerman, 2014; Simnett & Huggins, 2015; Steyn, 2014). Cheng, Green, Conradie, Konishi and Romi (2014) highlighted several key issues regarding <IR>, one being assurance on integrated reports. Other studies have explored the research opportunities within the integrated report (De Villiers et al., 2014). Yet theoretical and empirical studies on the assurance of the integrated report are limited. Most of our extant knowledge of assurance on integrated reports is limited to archival analysis to identify where research can add value (Simnett et al., 2015). Other relevant studies, including best practice awards, trends followed by companies as well as the benefits and challenges with regards to integrated reporting, were conducted by practitioners (Nkonki Incorporated, 2015, Nkonki Incorporated 2016, Integrated Reporting & Assurance Services, 2015), but also big four accounting firms (KPMG, 2015; PricewaterhouseCoopers, 2013; PricewaterhouseCoopers, 2015; Deloitte, 2012; Ernst & Young, 2015, Ernst & Young, 2016).

What has not, however, been researched is how companies are reporting on assurance in the integrated reports, specifically focusing on combined assurance. So far, little is known about the implementation of combined assurance. Furthermore, the impact that King IV will have on the integrated reports has also not been addressed, due to King IV being new. As a result, the objective of this paper is twofold. Firstly, it aims, to provide evidence on the <IR> practices of the top 20 listed companies in South Africa based on King III. Secondly, it aims to investigate the changes required in the current integrated reports based on King III to take into consideration the requirements of the new King IV, specifically focusing on the combined assurance model. The objectives where tested using a qualitative content analysis approach to determine the <IR> and combined assurance disclosure.

The next section of this paper provides the theoretical framework for the study. The paper continues by explaining the methodology applied to the research, discusses the empirical findings and deductions, identifies the limitations of the research and provides recommendations for future research. Conclusions are presented in the last section.

2. THEORETICAL FRAMEWORK

INTEGRATED REPORTING AND SOUTH AFRICA

The IIRC was formed in July 2010 to deal with <IR> globally. After three years of development, the International <IR> framework was released in December 2013 (IIRC, 2013). The integrated report is a single report that the IIRC, anticipates, will become an organisation’s primary report (IRC, 2011; IIRC, 2011). However, due the evolution of corporate reporting, companies are currently reporting non-financial information in stand-alone reports or within a separate section of the annual report (Eccles & Krzus 2010; GRI, 2013a). Although there are several authors (Adams, Fries & Simnett, 2011; Ballou, Casey, Grenier & Heitger 2012; Jensen & Berg, 2012; Porter & Kramer, 2011) who welcome the integration of non-financial and financial performance, there are researchers and organisations who express their doubts on the practical implementation of <IR> (Setia, Abhayawansa, Joshi & Huynh, 2015). One of these organisations that expressed its doubts is KPMG (2012), which argues that the full adoption of <IR> is a journey of three to five years for many organisations.

South Africa was a pioneer in the development and mandating of <IR>, through the JSE listing requirements. As a result, the IRC’s discussion paper for <IR>, issued in 2011 was the first venture globally to provide guidance on <IR>. Accordingly, companies listed on the JSE were required to adopt <IR>; using the IRC discussion paper as guidance until the IIRC framework was issued. Due to the similarities between the IRC and the IIRC framework, the

IRC announced its endorsement of the published framework on 18 March 2014 (IRC, 2015). Although there are, several differences between the two <IR> frameworks, they are complementary rather than conflicting (Anifowose, 2016). The Global Reporting Initiative (GRI) welcomed the publication of the IIRC's framework as an opportunity to integrate sustainability disclosures into other aspects of business performance that outlines the drivers and risks of an organisation's value (GRI, 2013b).

South Africa is one of the countries that are leading <IR> initiatives (Simnett et al., 2015; KPMG, 2015). The South African companies also had to prepare integrated reports before the IIRC issued its framework, contributing to the unique context for researching the integrated reports. Furthermore, the governing body of the company have discretion as to which principles of the new King IV to apply, however, highlighting one of the major changes in King IV from King III is the philosophy of "apply or explain" to "apply and explain" the governing body will have to provide and explanation as well. Therefore, the discretion of disclosure that the companies have, and the history of <IR> in South Africa makes South Africa, an interesting context in which to analyse integrated reports.

THE KING CODE OF GOVERNANCE

The King Committee was established by the Institute of Directors in Southern Africa (IoD) in 1994 with the objective of creating a code on corporate governance and providing periodic updates and guidance. The establishment of the King Committee coincided with the social and political change at the time with the emergence of democracy and the re-admission of South Africa into the world economy (IoD, 2002), as well as the increasing momentum of corporate governance worldwide following the release of the Cadbury Report (West, 2009). Mervyn King S.C., a former High Court judge, was appointed as the chairperson of the King Committee responsible for publishing the first King Report (King I), as well as the revised reports, namely King II, King III and King IV. The release of the latest King report, King IV, in November 2016 proves that corporate governance practices are a continuously developing process (IoD, 2016).

The current corporate governance report, namely King IV, came into effect on 1 April 2017. Its release is attributable to the international outlook that advocates greater accountability and transparency towards the broader stakeholder within a broader society (Deloitte, 2016). In the forward of the King IV report, Mervyn King explains that ethical leadership, sustainable development, integrated thinking, corporate citizenship, organisation's role and responsibility in society and stakeholder inclusivity, are the concepts that form the cornerstone of King IV (Deloitte, 2016; IoD, 2016). The preceding concepts are based on three paradigm shifts in the corporate world consisting of financial capitalism to inclusive capitalism, from short-term capital markets to long-term sustainable capital markets, and from silo reporting to <IR> (IoD, 2016).

King IV replaced the "apply or explain" approach of King III with the "apply and explain" approach (IoD, 2016). Furthermore, the 75 principles of King III have been reduced to 17 principles, applying a principle-and-outcomes based approach, compared to the tick-box approach (Deloitte, 2016). The principle-and-outcomes based approach aims to achieve the specific four good governance outcomes, being ethical culture, good performance, effective control and/or legitimacy, by application of the principles set out in King IV (Deloitte, 2016; IoD, 2016). Therefore, any organisation can apply the principles by providing an explanation on how they are achieving the outcomes (IoD, 2016). The explanation should be narrative, demonstrating the practices that were followed whilst applying the principles (Deloitte, 2016, IoD, 2016). The thinking behind “apply and explain” is to demonstrate that corporate governance should not be an act of mindless compliance. When corporate governance is applied attentively and considerately, it will yield positive results (IoD, 2016).

ASSURANCE ON INTEGRATED REPORTING

As <IR> is evolving, the need for the integrated report to be credible and reliable is also growing. Measures should, therefore, be implemented to ensure that reliance could be placed on these integrated reports (IIRC, 2015a). A recent study determined that 81 percent of respondents to the IIRC’s public consultation phase agreed that there was a need for external assurance of an integrated report (either on the whole report or specific aspects) (Simnett et al., 2015). In addition, these respondents confirmed that assurance was a fundamental mechanism for ensuring reliability and enhancing credibility (IIRC, 2015a; IIRC, 2015b). This is further emphasised in a study based on interviews conducted with South African institutional investors that found that integrated reports require assurance and that a framework should be developed for the necessary assurance process (Atkins & Maroun, 2014). To illustrate that this issue remains contentious, even after the IIRC issued its framework in December 2013, the IIRC(2014a, 2014b) issued two discussion papers dealing with assurance on <IR> in 2014.

In these discussion papers, the IIRC (2014b) states that the importance of assurance with respect to <IR> is addressed from the perspectives of three groups of stakeholders within the reporting environment being the users, preparers and assurance practitioners. Assurance enhances the credibility of reported information on which users place reliance (Mammatt, 2009; Marx & van Dyk, 2011; O’Dwyer & Owen, 2007; Simnett et al., 2015). Assurance by an independent third party can provide confidence to those charged with governance on the integrity and completeness of the reported information prepared by management (IIRC 2014b). Finally, the IIRC states that assurance practitioners will require guidance on how to perform an assurance engagement specific to an integrated report or the process of preparing an integrated report to meet the needs of the stakeholders. (IIRC, 2015b)

The IIRC framework provides a principle-based approach to preparing an integrated report in contrast to many established financial reporting frameworks that establish both measurement and increase prescriptive reporting standards (IIRC, 2014b). As a result, the actual disclosures within integrated reports are likely to vary significantly from organisation to organisation. Each organisation will report only that information which is relevant to itself and possibly deliberately excludes the information that will place the organisation in an unfavourable light (IIRC, 2014b). Such a level of flexibility requires an increased level of judgement by both the preparer in assessing what is to be included in the integrated report, and the assurance practitioner in assessing the reliability of the integrated report (IIRC 2014b).

Since <IR> is in the embryonic phase there are numerous research opportunities regarding assurance on the integrated report as identified by several authors (Adams, 2015; Cheng et al., 2014; De Villiers et al., 2014; Simnett et al., 2015). De Villiers et al. (2014) specifically identified the assurance of integrated reports as an important area of improvement for the successful implementation of the <IR>. Similarly, Simnett et al. (2015:46) confirms that research on assurance on integrated reports has the ability to “challenge conventional wisdom regarding assurance". Likewise, it is acknowledged that there are ways other than the traditional assurance to improve the credibility of the integrated reports, and that alternative mechanisms may have a greater effect if utilised and coordinated properly (IIRC 2015b; IAASB 2016; IoD, 2016).

The release of King IV introduces the importance of the combined assurance model in achieving credibility over the integrated report. King IV highlights the importance of assurance over external reporting and states that the responsibility of providing the necessary oversight over this process lies with the board/ audit committee (IoD, 2016).

2.3.1 COMBINED ASSURANCE

King III defines combined assurance as "integrating and aligning assurance processes in a company to maximise risk and governance oversight and control efficiencies, and optimise overall assurance to the audit and risk committee, considering the company's risk appetite" (IoD, 2009:117). Combined assurance should be used as an extra governance measure preventing any risks and key controls from being overlooked by assurance. Accordingly, organisations need to find a solution of coordinating assurance across the three different lines of defence. Although King III first introduced combined assurance, numerous organisations use the three lines of defence concept (ECIIA and FERMA, 2010) to group the assurance providers together to address risks appropriately as required by the board and stakeholders.

The first line of defence includes operational management and internal control (ECIIA and FERMA, 2010). This can be broken down into strategy implementation, performance measurement, risk management, and other control and governance processes (PWC, 2010). The second and third line of defence primarily provides assurance. The second line of defence includes risk and legal based assurance (PWC, 2010). The risk management function should effectively be a robust risk management framework within which the entity's policies and minimum standards are set, where oversight and on going challenging of risk management performance and reporting will be achieved. Included in this line of defence are other specific monitoring functions like legal, compliance, health and safety and quality assurance (ECIIA and FERMA, 2010; PWC, 2010). The third line of defence includes independent assurance and involves assurance of the adequacy and effectiveness of risk management, governance, and internal control within the entity as established by the first and second lines of defence (PWC, 2010).

To illustrate the significance of combined assurance, King IV, advocates the combined assurance model that was first introduced in King III, but expands the concept of the three lines of defence to include all assurance role players. King IV (IoD, 2016: recommended practice 40-43) requires that the Board ensures that a "combined assurance model is designed and implemented to cover the organisation's significant risks and material matters adequately through a combination of a number of assurance services and functions". King IV sets out the following functions and services that should be included in the combined assurance model.

a. "the organisation's line functions that own and manage risks,
b. the organisation's specialist functions that facilitate and oversee risk management and compliance,

c. internal auditors, internal forensic fraud examiners and auditors, safety and process assessors and statutory actuaries,
d. independent external assurance service providers such as external auditors,
e. other external assurance providers such as sustainability and environmental auditors or external actuaries, and external forensic fraud examiners and auditors and lastly
f. regulatory inspectors" (IoD, 2016).

The King IV combined assurance model ultimately emphasises that assurance is not all about defence but about reinforcing the integrity of reports for decision-making, by having an effective control environment (IoD, 2016). King IV requires that the audit committee should oversee the activities of combining, co-ordinating and aligning of assurance across the various lines to ensure that the assurance has the suitable depth (IoD, 2016). The correct alignment of these activities will create an environment for effective control as well as have a positive effect on the integrity of reports.

King IV does include a whole chapter on governance and functional areas that include a principle that deals solely with assurance. Principle 15 states that "the governing body should ensure that assurance services and functions enable an effective control environment, and these support the integrity of information for internal – decision making and of the organisation's external reports" (IoD, 2016). This principle includes recommended practices on combined assurance, internal audits, and assurance on external reports. Furthermore, recommended practice 47 requires that reports published by the organisation other than the financial statements, should disclose a description of the type of assurance applied to each report, accompanied by a statement by the governing body on the integrity of the report (IoD, 2016: Principle 15, recommended practice 47).

In addition to the disclosure requirements of assurance on additional reports as outlined above, recommended practice 47 highlights the audit committee's role regarding the disclosure of the application of the combined assurance model (IoD, 2016), therefore by linking combined assurance with the assurance of other reports. King IV, however, does not include a list or define these other reports. King IV, principle 5, recommended practice 12 does, however, state that the organisation should issue an integrated report at least annually (IoD, 2016).

3. METHODOLOGY

The status of combined assurance practices, based on King III requirements, of <IR> in South Africa were empirically tested by means of a content analysis of the integrated reports of the companies selected for review. The analysis of the King III requirements were compared to the King IV combined assurance requirements and discussed.

The research population is the JSE-listed companies as at 31 December 2015. The delineation is justified by the JSE listing requirement 8.64 that all South African listed companies with financial years ending on or after 1 March 2010 should adopt the King code or explain why they have not done so (JSE, 2011). The population is further justified as this listing requirement positioned South Africa as a global leader in <IR> (Maroun & Solomon 2013). In line with this, South Africa's <IR> environment is well established where the selected companies have had at least five years' experience with the <IR> phenomenon.

On 31 December 2015, there were 395 companies listed on the JSE, with a market capitalisation of R11 trillion. To achieve completeness of the JSE listed companies population, the researcher extracted the data from INET BFA's database[17]. The units of observation include the company's integrated reports.

Sampling in qualitative studies, such as this one, deliberately selects "information rich" (Beaudry & Miller, 2016:41) samples that adequately address the specific phenomenon or event under study, such as assurance on <IR>, and is therefore entirely based on the judgement of the researcher (Beaudry & Miller, 2016). Therefore, given the exploratory nature of this study, the JSE top 20 companies selected was based on purposeful non-probability sampling. Making use of purposeful sampling allowed the researcher to choose a specific group of informants (Bernard, 2000). Additionally, it provided better in-depth, rich findings compared to other probability sampling methods (Cohen, Manion & Morrison, 2011).

This study examines the top 20 companies (based on market capitalisation) as the slack resource theory suggests that large companies are more likely to have the resources that can be used to send a credible signal to address the social, economic and environmental concerns of stakeholders, (Ackers, 2009; CorporateRegister, 2008, Qi, Zeng, Shi, Meng, Lin & Yang, 2014). Although the sample selected represented only 5% of the JSE-listed companies, the companies represented 71% of the total JSE market capitalisation as at 31 December 2015. This further justifies the sample selected as it represents a significant part of the total wide spectrum of stakeholder's interest in South Africa. Refer to Annexure A for a list of these companies.

The qualitative data analysed include the integrated reports extracted from the company's website. The company documents were collected and saved in a portable document format (pdf), the documents were numbered sequentially and imported into Atlas.ti, the Computer Assisted Qualitative Analysis software. Atlas.ti was used to store, organise, manage, reconfigure (Saldana, 2009) and systematically analyse the themes hidden in the unstructured qualitative data that is known as coding. Content analysis is recognised in the literature as a research instrument for analysing characteristics of a population (Ackers, 2009; Barack & Moloi, 2010), specifically for the purposes of analysing integrated reports (Marx & Mohammadali-Haji, 2014). The recognition of content analysis as a research instrument that can be used to code reports according to categories is further supported by Mouton (2005).

4. RESEARCH FINDINGS AND INTERPRETATION

The objective of this section of the paper is to provide empirical evidence of the status and combined assurance practices, based on King III requirements, of integrated reporting in South Africa. The analysis of the King III requirements were compared to the King IV combined assurance requirements and discussed.

4.1 Type of reporting

The objective of this part of the analysis was to establish how many of the top 20 JSE listed companies produced an integrated report. Secondly, it was aimed to establish if the basis used in preparing the integrated report was explained and finally to establish the title of the integrated reports. Table 1 summarises the top 20 companies that produced an integrated

[17] Accessed on 19/08/2016 at http://0-expert.inetbfa.com.oasis.unisa.ac.za/

report. The data that consists of the 2015 integrated and annual reports of the companies were collected from the respective companies' website.

Table 1 Integrated reporting disclosure

Type	Number of top 20 JSE listed companies	% of top 20 JSE listed companies
Issued a standalone integrated report	13	65.0
Issued an annual report containing an integrated report	1	5.0
Issued an annual report	6	30.0
Total	**20**	**100.0**

The above findings indicate that a majority of the JSE top 20 companies issued an integrated report (65%). This percentage is considerably higher when compared to the Marx and Mohammadali-Haji's (2014) study that found only 7.5 % of JSE top 40 companies produced a stand-alone integrated report in 2014. This increase in the issuing of stand-alone integrated reports suggests that more companies are adopting the IIRC framework.

One of the companies produced an annual report that included the integrated report. Thirteen of the 20 companies, which are primarily listed on the JSE, prepared an integrated report, compared to only one of the cross-listed companies that prepared an integrated report. The companies that continue to title their reports "annual report" do so because they have primary listings on the London Stock Exchange or on the Swiss Stock Exchange, where the concept of <IR> is not as well established as in South Africa. This is in line with the findings of Ernst & Young (2015). In addition, the JSE listing requirements (JSE, 2011) allows the requirements of the primary exchange to take precedence; hence, <IR> is not a requirement for companies where the primary listing is not on the JSE, if the primary stock exchange does not require this. The companies that did not produce an integrated report also did not refer to the IIRC framework or King III in the annual reports, refer to findings in Table 2. However, while six of the reports do not explicitly state that it is not an "integrated report" and do not make reference to the IIRC framework, it still includes many of the principles of <IR>. Five of the companies, where the primary listing is on the London Stock Exchange, were ranked highly during the Ernst & Young Excellence award of 2015. The reason for this is that, since 2014, the companies listed on the London Stock Exchange are required to include a strategic report that shows many similarities to the integrated report within their annual report.

All the companies who did not prepare an integrated report (seven companies), prepared an annual report, compared to most of the companies who prepared an integrated report, that did not issue an additional annual report. This is a significant finding as regulation 8.63 of the JSE regulations require the company to disclose a narrative statement of how it has applied the principles set out in the King Code, in the annual report (JSE, 2011). This finding illustrates that the South African listed companies are viewing their integrated report as the previously known annual report. This finding also suggests that the companies are adopting the IIRC framework.

Table 2 summarises the companies who explained the basis used in preparing the integrated report. The summary consists of the 14 companies as identified in Table 1 that did prepare an integrated report. Only the companies that produced an integrated report was analysed as it was determined through content analysis that the remaining six companies did not refer to King III nor the IIRC framework, and this study is interested in the requirements of King III.

Table 2 Basis of preparation explained in integrated report

	Number of 14 companies that prepared and integrated report		%	
	Yes	No	Yes	No
Basis of preparation explained in integrated report.	14	0	100.0	0

Source Own research

The above findings indicate that the basis used in preparing the integrated report was explained in all the companies that prepared an integrated report. The basis of preparation of the integrated report mostly referenced to the IIRC, with fewer referenced to King III, the Companies Act, JSE regulations, Global Reporting Initiatives (GRI) and International Financial Reporting Standards (IFRS). One company referred to the South African IRC framework as the framework adopted for the integrated report, even though the IRC endorsed the IIRC's framework. The number of companies reporting on the basis of preparation is considerably higher when compared to the study of Marx and Mohammadali-Haji's (2014), who found only 67.5% of companies explained the basis of preparation. This finding implies that the companies are following the guidance of the IIRC framework and that the companies are more mindful of the format of reporting and communication with their various stakeholders.

Figure 1 illustrates the titles used by the top 20 companies to name the integrated report. As reflected in Figure 1, the use of "integrated report" is the most popular, followed by "annual integrated report" and "integrated annual report". These findings are consistent with that of Nkonki (2016), who found that "integrated report" is the most mature title. The use of "integrated report" indicates that there is only one report that is issued annually and includes all the relevant information in one report. The length of the integrated reports that used "integrated report" as the title was on average 99 pages, where the shortest report was 63 pages and the longest 148 pages. The length of the other reports is on average 238 pages. This finding, therefore, indicates that there is a direct relationship between the length of the report and the name of the report. It was also found that there is a direct relationship between the length of reports and the number of other reports/documents cross-referred to in the integrated report. The reports titled "integrated reports" cross-referred to the most reports/documents; this contributes to the conciseness of the report.

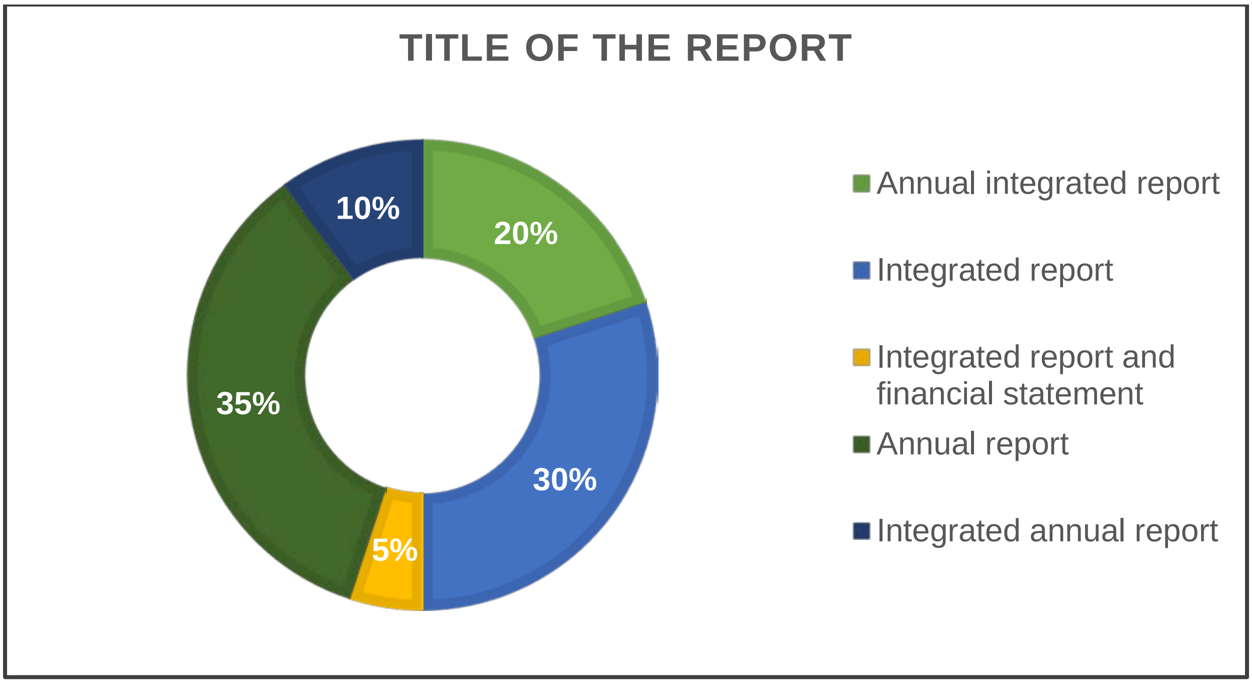

Figure 1: Title of report
Source Own research

The use of “integrated” in the title also suggests that the companies are adopting the IIRC framework. However, three of the 14 companies that prepared an integrated report and used the word “integrated” in the title of the integrated report did not refer to the IIRC Framework as the basis of preparation. This implies that many of the reports that are issued as integrated reports do not necessarily conform to the vision of an integrated report as outlined in the IIRC framework.

King IV states the governing body should oversee that the organisation issues an integrated report on an annual basis. The findings indicate that all the companies whose primary listing is on the JSE did prepare an integrated report. Furthermore, King IV recommends that the format of the integrated report can be a standalone report that connects in a concise manner the detail information of other reports or it can take the form of a prominent and accessible part of another report (IoD, 2016). To add, King IV recommends the use of cross-referencing to avoid duplication (IoD, 2016 page 38). The use of cross-referencing will also contribute to the conciseness of the integrated report.

4.2 Combined assurance

The objective of this aspect of the analysis was to establish, in relation to the top 20 companies, if the implementation of combined assurance was disclosed in the integrated report. Table 3 identifies the number of the top 20 companies that disclosed the existence of combined assurance in the integrated report/ annual report.

Table 3 Reference to combined assurance

Type	Number of top 20 JSE listed companies	% of top 20 JSE listed companies
Refers to combined assurance in integrated report	11	55.0
Refers to combined assurance in other reports	2	10.0
Does not refer to combined assurance	7	35.0
Total	**20**	**100.0**

The existence of combined assurance is identified by searching for the disclosures about it in the company's integrated reports and other suite of reports. Some common wordings about the existence of combined assurance include: "a combined assurance approach has been adopted", "the company has adopted a combined assurance framework", "the group follows an effective combined assurance model in which…". It can be seen from Table 3 that 11 companies (55%) referred to combined assurance in the integrated report. Furthermore, it was found that no cross-listed companies referred to combined assurance. Two of the companies that did not refer to combined assurance in the integrated report, made reference to it in the King report and governance and remuneration report respectively. This finding does not however mean that the companies who do not explicitly refer to their combined assurance model does not have one or does not apply one. The lack of combined assurance does however; confirm the findings of other studies regarding the rare implementation of combined assurance (ECIIA, 2009; Patterson, 2011). The observation that all the companies with their primary listing on the JSE made reference to combined assurance compared to none of the cross-listed companies suggests that the implementation of combined assurance is King III related.

Accordingly, these findings draws attention to King IV that requires the audit committee to disclose the arrangements in place for combined assurance and the committee's views on the combined assurance model's effectiveness (IoD, 2016). The above findings indicate that the disclosure and reporting of combined assurance vary significantly in depth and length ranging from a one-sentence mention of its existence, to a report outlining the complete model specification. This inconsistency in combined assurance reporting is owing to King III that recommends the combined assurance practice but does not provide guidance on the communication of the implementation to report users. The reporting of combined assurance is further analysed in 4.3 Reporting of combined assurance.

King IV states that the governing body has discretion as to where the King IV disclosures will be made, however, King IV does offer examples of where these disclosures should be made. These examples of the reports include the "integrated report, sustainability report, social and ethics committee report, or other online or printed information or reports" (IoD, 2016 page 38). Applying the King IV requirement to the findings, it indicates that the majority of the companies report on the combined assurance practices in the integrated report.

4.3 Reporting of combined assurance

The objective of this aspect of analysis was to establish in relation to the companies who adopted combined assurance, the extent of the combined assurance reporting. The coding scheme used to analyse the extent of the combined assurance reporting was developed using a combination of the King III requirements and the researcher's own elements. Table 4 summarises the reporting of combined assurance analysis of the 13 companies (as identified in Table 3) who adopted combined assurance, based on coding.

Table 4 Extent of reporting of combined assurance

Type	Number of companies who referenced combined assurance		% of companies who referenced combined assurance	
	Yes	**No**	**Yes**	**No**
Did the companies refer to at least three lines of defence?	**7**	**6**	**53.8**	**46.2**
Did the companies articulate who was included in the different lines of defence as outlined in King III?	**3**	**10**	**23.0**	**76.0**
Conclusion made on effectiveness of combined assurance model by those charged with governance	**2**	**11**	**15.4**	**84.6**
Is the combined assurance reporting focused in the integrated report	**3**	**10**	**23.0**	**76.0**

From Table 4 it is evident that six of the companies do not refer to at least three lines of defence as outlined in King III. Three of the companies that referred to the different lines of defence clearly articulated the assurance services and functions that were responsible for each line of defence. Not one of these three companies referred to the lines of defence as outlined in King III in its entirety, being management, internal assurance providers and external assurance providers. This finding indicates that the combined assurance model is not going to be "one size fits all", but where the model will differ between companies. This finding also contributes to the evolution of combined assurance as reflected in King IV.

Where the companies did not refer to the different lines of defence, they reported on several mechanisms to enhance the credibility of the integrated report. The assurance services and functions that where reported on the most, were internal audit and external audit. This finding indicates that the companies still regard internal audit and external audit as the two assurance services that play the most pivotal role in the credibility of the integrated report. Furthermore, this finding confirms what King IV envisages for the role of internal audit in the organisation, being one of the advisors that add value through insight into the activities (IoD, 2016). Three integrated reports mentioned management and external expert service providers as functions to enhance the credibility. Other services and functions that where mentioned to enhance the credibility of the integrated report were the directors, audit and risk committee and the board.

As reflected in Table 2, only 15% of the companies reported on the effectiveness of their combined assurance model. King III requires that the audit committee should ensure that a combined assurance model is applied; additionally, it requires that the audit committee should be responsible for monitoring the appropriateness of the combined assurance model. King IV addresses the shortcoming of the effectiveness of the combined assurance level.

King IV similar to King III also recommends the practice of combined assurance, however, like King III, it does not prescribe the design of the model that should be applied. From the findings, it can be seen that a “one-size fit all” combined assurance model will be difficult to establish. Notwithstanding the absence of a combined assurance design in King IV, it recommends on how to report on the model. King IV recommends that information regarding the type of assurance process applied to each external report should be disclosed in the report. In addition to the recommended practice, it describes what information should be included in this external report assurance disclosure. This information includes:

> “a brief description of the nature, scope and extent of the assurance functions, services and processes underlying the preparation and presentation of the report; and
>
> a statement by the governing body on the integrity and the basis for this statement with reference to the assurance applied” (IoD, 2016 recommendation 51).

Furthermore, King IV recommends that the audit committee report on the arrangements in place as well as the effectiveness of the combined assurance model (IoD, 2016). Based on the above findings it was found that the reporting of the companies’ combined assurance practices varies from excellent where the whole model was reported on to poor consisting of a one sentence mention of its existence.

5. RESEARCH LIMITATION AND SUGGESTIONS FOR FUTURE RESEARCH

This study has two specific limitations. Firstly the small sample of the companies to those listed on the JSE, may limit the generalisability of the findings. Secondly, as noted by Unerman (2000) using content analysis has a risk of capturing an incomplete picture of the whole business, but it is also widely recognised as a research instrument as previously justified. Limiting the study to the assessment of integrated reports is justified because such reports are considered important stakeholder documents produced by companies. These reports offer companies the opportunity to communicate their value creation story to investors and stakeholders (IIRC, 2013).

This study was performed on the JSE top 20 companies it is recommended that the study should be expanded to include more companies, including unlisted and smaller companies and public sector entities. It is recommended that the study should include integrated reports from other countries and investigate whether these companies make use of a combined assurance model and how they report on it. The study was performed prior to the implementation of King IV, and it is recommended that an analysis similar analysis should be performed after 1 April 2017 when King IV is effective.

6. CONCLUSION

With the release of the new corporate governance code, King IV comes the increased focus on combined assurance and integrated reporting. Furthermore, greater emphasis will be placed on providing assurance of the reliability of external reporting. The effectiveness of the combined assurance model to provide assurance on the integrated report will greatly depend on the value placed on this model by the structure that has primary accountability for the governance and performance of the company. The study found that a majority of the companies state that they apply a combined assurance model, however; the majority of the companies do not explain the model. These findings provide support for the recommended practice of King IV (effective from 1 April 2017) that companies should provide an explanation on how they apply the combined assurance model. Furthermore, only a limited number of companies stated who was involved in the credibility of the integrated reports.

The findings from this study are of significance, as they provide evidence of the current integrated reporting practices specifically reporting on combined assurance in South Africa. The finding also lends support to the recommendations of King III and the newly effective King IV report, that companies should disclose their combined assurance practices and utilise a combined assurance approach in their businesses.

In addition, the paper has important regulatory and standard-setting implications for the journey towards combined assurance. These findings shed new light into the exploration and development of assurance and other credibility-enhancing mechanisms for <IR>, of interest to both the IIRC and the IAASB Integrated Reporting Working Group.

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GRI - see Global Reporting Initiative

IAASB – see International Auditing and Assurance Standards Board

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IRC – see Integrated Reporting Committee

IIRC – see International Integrated Reporting Council

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WBCSD see World Business Council for Sustainable Development.

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ANNEXURE 1: TOP 20 JSE-LISTED COMPANIES (BY MARKET CAPITALISATION) 31 DECEMBER 2015

Company name	Mnemonic	Primary listing	Market Capitalisation as at 31 December 2015 Rmillion
British American Tobacco Plc	BTI	LSE	1 769 706
Sabmiller Plc	SAB	LSE	1 575 136
Naspers Ltd	NPN	JSE	928 298
Compagnie Fin Richemont	CFR	Swiss stock exchange	582 552
Bhp Billiton Plc	BIL	LSE	367 374
Glencore Plc	GLN	LSE	303 539
Steinhoff Int Hldgs N.V.	SNH	JSE	303 256
Sasol Limited	SOL	JSE	273 193
Mtn Group Ltd	MTN	JSE	245 248
Firstrand Ltd	FSR	JSE	237 674
Vodacom Group Ltd	VOD	JSE	226 779
Old Mutual Plc	OML	LSE	204 289
Standard Bank Group Ltd	SBK	JSE	183 672
Aspen Pharmacare Hldgs L	APN	JSE	141 232
Sanlam Limited	SLM	JSE	131 158
Barclays Africa Grp Ltd	BGA	JSE	121 644
Remgro Ltd	REM	JSE	117 972
Mondi Plc	MNP	LSE	113 297
Bidvest Ltd	BVT	JSE	110 083
Woolworths Holdings Ltd	WHL	JSE	104 400
Total			**8 040 501**

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AUD028 Regulation vs. Professional Judgement? The Role of Professional Judgement in the Mandatory Audit Firm Rotation Debate

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ABSTRACT:
The Independent Regulatory Board for Auditors (IRBA) is currently pursuing mandatory audit firm rotation (MAFR) as a solution to a perceived lack of independence of large audit firms responsible for JSE listed company audits. There is significant pushback from various stakeholder groups, especially the audit profession. One of the key arguments against audit firm rotation is an appeal to the existing legislative and regulatory framework, and its promotion of the application of professional judgement to assess auditor independence. The argument is that the judgement exercised by the audit committee and the auditor is fundamental to assessing auditor independence. Consequently, there is argued to be no need for additional regulation. The purpose of this paper is to understand the arguments being made by the audit profession regarding the role that professional judgement plays in safeguarding auditor independence. An analysis of the academic literature regarding the audit firm rotation regulation is performed. In addition, a review and analysis of official audit firm positions, as well as individual experienced audit practitioners, is performed. Individual audit practitioner positions are obtained using an open-ended interview methodology. The findings indicate that auditors are concerned that the IRBA is seeking to regulate auditor independence when allowing audit committees and auditors to exercise their professional judgement would be more effective. There is also a clear call from auditors for audit committees of JSE listed companies to improve their independence from management and increase their understanding of their responsibilities. Improving audit committee skills, experience and independence is proposed as a better alternative to promote auditor independence than mandatory audit firm rotation. Professional judgement is considered a better alternative to regulation in regard to auditor independence. Further areas for research in a South African context are provided.

Key words: Auditor independence; Audit committee; Mandatory Audit Firm Rotation; Audit quality

INTRODUCTION AND SOUTH AFRICAN CONTEXT

As of March 2017 the independence of audit firms in South Africa and the possibility of implementing Mandatory Audit Firm Rotation is being considered by the South African Parliament. The parliamentary Standing Committee of Finance invited members of the public, interested and affected parties and stakeholders to make comments on the consultation paper on mandatory audit firm rotation (commonly referred to as MAFR) published on 25 October 2016 by the South African audit regulator, the Independent Regulatory Board for Auditors (IRBA). This has followed the announcement by the Chief Executive Officer of the IRBA in August 2016 of the IRBA's plans to implement mandatory firm rotation into legislation (IRBA, 2016a; Ziady, 2016). The regulator is advocating for a change in legislation in favour of mandatory audit firm rotation as a means of improving audit quality (IRBA, 2016b). In October 2016 the IRBA published a consultation paper, requesting written response from all interested stakeholders. The consultation paper specifically, and the intentions of the regulator generally regarding MAFR, has sparked much discussion and mixed opinions.

The IRBA believes that auditor independence is critical to achieve quality financial reporting and that this independence is compromised with respect to the audits of JSE listed companies by the large audit firms in South Africa (IRBA, 2016b). The IRBA believes that the independence of the audit firm and the audit engagement partner from the audit client is a critical contributing factor to the overall quality of the audit outcome (audit quality) and that since this independence is not at the appropriate level, the regulator is pursuing a change in regulations in favour of MAFR to increase it to an appropriate level.

LITERATURE REVIEW

Auditor independence is considered important because it has an impact on the outcome quality of the audit and enhances the credibility of the financial statements in the eyes of its users. This link between auditor independence and audit and financial reporting quality is well established in the academic literature. The auditor expresses an opinion on the financial statements via the audit report and a lack of independence could impair the quality of the audit report provided to the public and stakeholders of the company. If auditors do not remain independent, they might be less likely to report irregularities or insist that financial statements be prepared to their satisfaction impairing audit quality (Carey and Simnett, 2006).

In order to assess the impact of audit independence on audit quality, a recent study by Tepalagul and Lin (2015) suggests the use of a four-dimensional approach consisting of (a) client importance, (b) non-audit services, (c) auditor tenure, and (d) client affiliation with audit firms. Figure 1 below demonstrates how the auditor's and client's incentive can create situations which may pose a threat to the independence of the auditor.

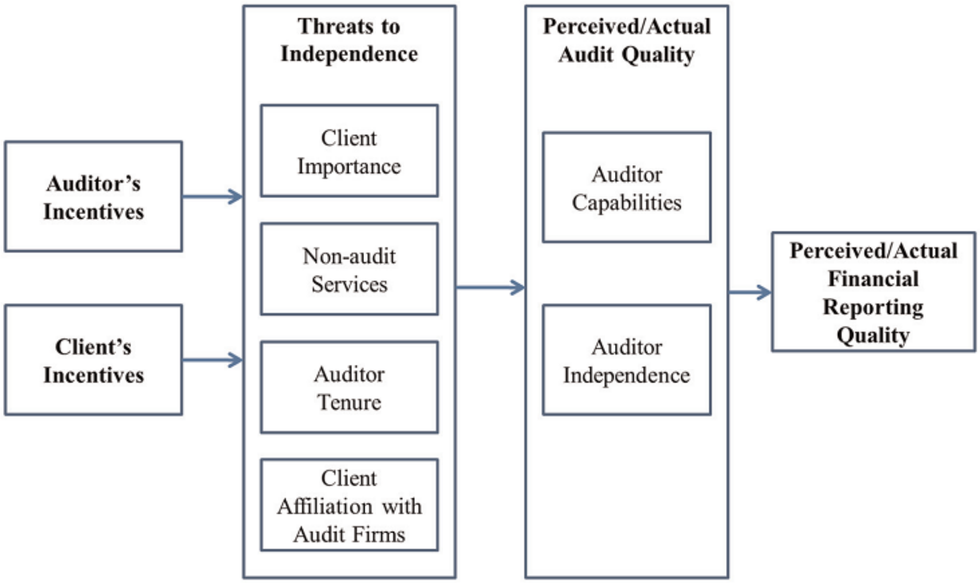

Figure 1. A framework for assessing the impact of auditor independence on audit quality.

Source: Tepalagul and Lin (2015)

As can be seen from Figure 1 above, audit quality consists of two components, namely, auditor capabilities and auditor independence. This shows the clear link between the independence of the auditor and the actual, as well as perceived, quality of the audit and financial reporting. An impaired independence of the auditor with respect to the audit client management, will consequently negatively impact the quality of the financial reporting. The threats to independence identified in Figure 1 above therefore have an adverse impact on the auditor's independence, and thus in turn negatively affects the quality of the company's financial reporting.

However, a few key questions need to be answered in the South African debate over mandatory audit firm rotation (MAFR):

1. Is auditor independence on JSE listed company audits compromised as the IRBA contends?
2. Does long auditor tenure impair auditor independence?
3. Will mandatory audit firm rotation improve auditor independence and consequently, audit quality and financial reporting quality?
4. Will regulation of auditor independence remove the need for stakeholders such as shareholders, audit committees and the auditor themselves to apply professional judgement in regard to auditor independence?

(Harber, 2016; Bam, 2017; Shango, 2017)

According to various sources (King and Natesan, 2016; Newton-King, 2016; Ramon, 2016; Bam, 2017; Bourne, 2017; Oddy, 2017; SAICA, 2017; Shango, 2017), these are some fundamentally important questions that many of the stakeholders in the South African debate are claiming need to be properly considered and researched before a decision on MAFR is made by the IRBA or the South African Parliament, who is ultimately responsible for changing legislation This is a call to academics to perform more research in these areas.

The following is a brief literature review of the international literature.

Research regarding auditor tenure

A recent study by Tepalagul and Lin (2015) is a very important contribution to the MAFR debate. The study consisted of a comprehensive review of academic research pertaining to auditor independence and audit quality. Through a review of published articles during the period 1976-2013 in nine leading international journals related to auditing, most studies concluded that long auditor tenure does not impair independence (Tepalagul and Lin, 2015). In fact, according to Tepalagul and Lin (2015) most empirical findings are consistent with longer auditor tenure not resulting in lower financial reporting quality.

It is the intention of the IRBA to impose MAFR on a rotation period of 10 years, meaning that the audit firm will be forced to rotate off the JSE listed company after the 10^{th} year of appointment (IRBA, 2016b). The IRBA is wanting to implement this 10 year rotation period in order to limit the tenure of the audit firm, since audit tenure is believed to be the primary reason for a growing lack of auditor independence on the JSE company audits, an opinion that has been expressed clearly in the IRBA consultation paper (IRBA, p.17, 2016b). However, if MAFR is being considered as a means to limit the tenure of audit firms, and therefore improve auditor independence, audit quality and financial reporting quality, then it is submitted that academic research is not in favour of this change in regulation being effective. As the above review of literature reveals, most studies show that long auditor tenure does not reduce auditor independence, audit quality or financial reporting quality.

Research regarding audit partner (not audit firm) rotation

Recent studies have mostly concerned themselves with audit partner (auditor) rotation (Bowlin et al., 2014; Daugherty et al., 2012; Laurion et al., 2015; Tepalagul & Lin, 2015), rather than audit firm rotation.

Again, there is some degree of mixed results in the academic literature but generally audit partner rotation has been found to improve auditor conservatism and audit quality in regimes mandating audit partner rotation (Cameran et al., 2012). Audit partner rotation has been found to improve the quality of audits and financial reporting - and South Africa already has this law in place in section 92 of the Companies Act, as is discussed further below.

Currently South Africa does not legislate the mandatory audit firm rotation (MAFR) as has been implemented in the European Union in 2014 (European Commission, 2015), but rather follows a system similar to the United States, with auditor rotation required every five years (i.e. of the individual audit partner, not the entire firm). This includes a cooling-off period of two years, as prescribed by section 92 of the Companies Act, 2008.

It is interesting to note that the IFAC Code of Ethics for Professional Accountants, the international code governing auditors and professional accountants, requires the individual audit partner, on a listed company audit engagement, to rotate every seven years, but section 92 of the South African Companies Act imposes a stricter five-year rotation period.

Research around Mandatory Audit Firm Rotation (MAFR) specifically

Unfortunately, there is very little research on the effectiveness and consequences of audit firm rotation specifically. According to Hay (2015) the rotation of audit firms is a difficult area to research because there are so few practical situations where it has been enforced. As a result, “there is no clear evidence about whether it is effective” (Hay, 2015). According to Bédard and Compernolle, the authors of chapter 20 of the highly respected “The Routledge Companion to Auditing” (2014), as quoted by Hay (2015), “academic research has been unable to provide clear answers about the consequences of mandatory audit firm rotation”.

According to Cameran et al. (2015) there has been little research into either the benefits or costs of MAFR that could inform regulators for policy making.

However, there has been some research specifically on Mandatory Audit Firm Rotation (MAFR) in other countries. Three key studies specifically focus on MAFR and examine the effects of MAFR in countries that have adopted it. These studies are important primarily because they have been performed in countries where MAFR has been adopted and the studies have attempted to measure the impact that MAFR has had on the quality of the audit and the quality of financial reporting. This should be considered significant research on the topic and South African regulators should take note of these findings. There are many opinions on MAFR. There are many vested interests and biased parties involved in the debate. But who has objectively, using a rigorous academic methodology, actually studied the effect that MAFR has on the quality of the audit and the quality of financial reporting? Very few studies have done that.

There are various reasons for why there have been so few studies on the impact of MAFR. Firstly, there are very few countries that have implemented MAFR for periods long enough to enable researchers to measure the effects of MAFR. The European Union has only just implemented MAFR in 2014 and the impact of these regulations is yet to be seen. Secondly, the impact of MAFR is difficult to measure. How does one measure the change in quality of an audit or of financial statements? It can be done, and a small number of studies have done so.

So, although there is very little research on MAFR specifically, there are these three studies that examine the effects of MAFR in countries that have adopted it:

1. Jackson, Moldrich, and Roebuck (2008) - research conducted in an Australian context.
2. Ruiz-Barbadillo, Gómez-Aguilar, and Carrera (2009) - research conducted in a Spanish context.
3. Cameran, Francis, Marra and Pettinicchio (2015) - research conducted in an Italian context.

To summarise their findings, it can be concluded that none of these three studies are in favour of pursuing mandatory audit firm rotation. All three studies concluded that MAFR will not improve the quality of audits or financial reporting.

The purpose of this paper is to perform an exploratory study on the 4th question above.

SOUTH AFRICAN RELIANCE ON PROFESSIONAL JUDGEMENT

The auditing profession in South Africa places a large degree of reliance on the profession’s ethical standards to internally assess (or self-assess) threats to its independence as auditor and put appropriate measures in place to reduce those threats to an acceptable level. If the threat cannot be reduced to an acceptable level, the auditor should not proceed with the audit engagement.

All registered auditors in South Africa are overseen by the IRBA. The IRBA Code of Professional Conduct (CPC), a guide outlining proper conduct for auditors, identifies two components of “independence”, namely “independence of mind” and “independence of appearance”. The CPC requires the auditor to seriously consider the reality of their independence from the audit client and make decisions objectively and without undue influence (independence of mind), as well as how an informed outsider may view the auditor-client relationship (independence in appearance).

The CPC therefore identifies the types of threats which may threaten the independence of auditors and provides guidance on safeguards which may be put in place to reduce the threat to an acceptable level. The CPC also identifies situations where the threat to independence is so significant that no safeguards can be put in place, thus requiring the auditor to not proceed with the engagement.

The CPC, however, does not provide guidance on every situation in practice which may threaten the independence of auditors. As such, the CPC relies on the auditor to apply their minds and exercise professional judgement when they encounter a situation for which no specific guidance has been provided in the CPC. The CPC thus requires the auditor to exercise professional judgement to identify threats to their independence, assess the significance of the threat and then put appropriate measures in place to bring the threat down to an acceptable level where the auditor’s independence will not be compromised.

Given the public interest, in terms of ISQC 1 (the quality control standard), the audits of all listed companies are required to undergo an engagement quality control review (EQCR). The purpose of the EQCR is for the reviewer (who is an audit partner (or on an equivalent level) who is not involved in the performance of the audit) to review the judgements made by the engagement partner and challenge them where he/she feels that the engagement partner has exercised professional judgement inappropriately. The EQCR process therefore provides further assurance that the auditor has acted with independence, objectivity and professional behaviour in carrying out their duties.

In addition to the exercise of professional judgement by the auditor through professional and ethical standards, the Companies Act No 71 of 2008 (“Companies Act”) has several legislative requirements which have been put in place to promote the independence of the auditor. While these are legislative requirements, the exercise of professional judgement is integral in ensuring that the legislative requirements are complied with.

Section 90 of the Companies Act requires the auditor to be appointed annually by the shareholders at the annual general meeting. The shareholders are one of the users of the financial statements and if the auditors are not perceived to be independent by the shareholders, the shareholders can apply their minds and choose to not re-appoint the auditors. Section 90(2) also specifies individuals who may not be appointed as the auditor. Section 90(2) thus safeguards against situations which may cause the independence of the auditor to be impaired. Shareholders therefore must be cognisant of the requirements of section 90(2) in exercising their rights to appoint the auditors.

Furthermore, in terms of section 94 of the Companies Act, all public and state owned companies are required to appoint an audit committee. Section 94 further requires the audit committee to assess the independence of the auditor prior to recommendation for appointment and must approve any non-audit service fees. The exercise of these duties requires the members of the audit committee to exercise their minds and carry out their duties in the best interest of the company, in good faith and in accordance with their fiduciary duties as mandated by section 76 of the Companies Act. This has implications that the members of the audit committee may be held liable under section 77 of the Companies Act for any loss or damaged suffered by the company because of the audit committee members failing to act in accordance with section 76. Considering these statutory requirements, the audit committee is a key gatekeeper of auditor independence as even if the auditor did not exercise professional judgement appropriately in identifying and responding appropriately to threats to their independence, the audit committee should have applied their minds as to whether the auditor was independent prior to recommending the auditors for appointment.

Although not a statutory requirement, the King IV Report on Governance for South Africa ("King IV"), through its recommendations, also encourages the audit committee members to exercise their minds in carrying out their duties. Principle 8 of King IV recommends that the audit committee manages the relationship between management and the auditor and continually assesses the appropriateness and independence of the auditor, recommending them for appointment to the shareholders. In terms of principle 1 of King IV, in performing these duties, the members of the audit committee should, exhibit the characteristic of integrity which entails acting in good faith and in the best interest of the company. This therefore implies applying their minds to determine whether their actions are in good faith and in the best interest of the company.

SUMMARY REVIEW OF OPINIONS REGARDING PROFESSIONAL JUDGEMENT

There are various professional standards, ethical considerations and legislation in place which the auditors and audit committees have to exercise their minds and apply professional judgement in order to ensure that the auditor is independent. Many argue that the professional judgement of all these parties is fundamentally critical to upholding auditor independence (Harber, 2016; Bam, 2017; Bourne, 2017; Oddy, 2017; Shango, 2017). Furthermore, they believe that audit firm rotation regulations (MAFR) will significantly reduce the role of experienced professionals, who are in a position of deep understanding of the context of the company and any actual threats to auditor independence, to apply their judgement to whether or not the auditor is independent of the company. According to this reasoning, implementing MAFR will reduce the reliance on professional judgement.

In October 2016 the IRBA published a consultation paper outlining the details of their intention to implement MAFR on a 10 year rotation basis with a 5 year cooling off period, effective in 2023. The consultation paper explicitly requested interested parties and stakeholders to provide written responses to the content in the paper. These responses to the IRBA consultation paper were provided by the deadline date of 20 January 2017.

The official responses from the following key stakeholders have been reviewed for the purpose of this summary discussion on the role of professional judgement in ensuring auditor independence:

Stakeholder: The “Big 4” Audit Firms, namely PWC Inc., Deloitte Inc., EY Inc. and KPMG Inc.

The commonly agreed and recognised distinction between the audit firms (Marx, 2009; Rapoport, 2016) has been used in this study and is as follows:

- “Big four” audit firms refer to the largest four accounting and audit firms globally, namely Deloitte Inc., PricewaterhouseCoopers Inc. (PwC), Ernst & Young Inc. (EY) and KPMG Inc.. These four firms are also referred to as “large-tier” firms (ICAEW, 2016).
- The non-big four firms are either mid-tier or small-tier firms depending on their respective global size, global presence and capabilities as an audit firm in terms of resources (ICAEW, 2016; Rapoport, 2016).

All four of these audit firms provided an official response to the IRBA. The responses were written by Dion Shango (CEO of PWC Southern Africa); Lwazi Bam (CEO of Deloitte Africa); Michael Bourne (EY South Africa Professional Practice Director); and Michael Oddy (KPMG South Africa Head of Audit).

Stakeholder: The South African Institute of Chartered Accountants (SAICA)

SAICA is a professional accountancy body in South Africa, representing chartered accountants. All the registered auditors in South Africa are chartered accountants who are members of SAICA. SAICA is an active organisation in the audit industry of South Africa.

The response from SAICA was written by Mr Terence Nombembe, the Chief Executive Officer of SAICA.

Stakeholder: The International Federation of Accountants (IFAC)

The IFAC is the global organization for the accountancy profession, comprising of over 175 members and associates in more than 130 countries (including South Africa) and jurisdictions, representing almost 3 million accountants in public practice, education, government service, industry, and commerce. The IFAC Board established the International Ethics Standards Board for Accountants (IESBA). The IESBA is the independent standard-setting body that serves the public interest by setting robust, internationally appropriate ethics standards, including auditor independence requirements, for professional accountants worldwide. The IESB compiled in the Code of Ethics for Professional Accountants which is the basis of the accountant and auditor ethics codes in South Africa.

The response from the IFAC was written by Mr Fayez Choudhury, the Chief Executive Officer of the IFAC.

Stakeholder: The CFO Forum

The CFO Forum describes itself as a high-level discussion group formed and attended by the Chief Financial Officers of major JSE listed and larger state-owned companies with broad sectoral coverage ranging from financial services, mining, retail, media, telecoms, medical services and paper/packaging. Its aim is to contribute positively to the development of South Africa's policy and practice on financial matters that affect business on behalf of its members, who represent a significant part of South African business. The CFO Forum was created in 2011.

The response from the CFO Forum was written by Ms. KC Ramon, the Chairperson of the CFO Forum, CFO and executive director of AngloGold Ashanti Ltd., a non-executive director on the boards of MTN Group Ltd. and Lafarge (France).

Of the above stakeholder responses, nothing explicitly regarding the role of professional judgment was contained in the CFO Forum and the IFAC submissions. However, significant arguments in this regard were made by each of the “big 4” audit firms and SAICA. Here follow quotations from these stakeholder response letters submitted to the IRBA, specifically regarding the role of professional judgement in maintaining a high degree of auditor independence on JSE listed company audits, as well as the threat that MAFR poses to the reliance on this professional judgement.

From PWC Inc.

“In South Africa there are several positive measures in place that contribute to auditor independence. These include:

a) The IRBA Code of Professional Conduct;
b) Audit partner rotation as set out in the Companies Act, 2008, (“Companies Act”);
c) Cooling-off periods for the auditor as set out in the Companies Act;
d) Statutory obligation of the Audit Committee in terms of the Companies Act to ensure auditor independence;
e) Appointment of the auditor by shareholders at the annual general meeting as set out in the Companies Act;
f) Disclosure of audit tenure;
g) Additional disclosure which has now been brought into the Report on Corporate Governance for South Africa 2016, (“King IV”);
h) International Standards on Auditing; and
i) Revisions and additions to the auditor reporting standards which have resulted in a significantly expanded auditor report including the communication of Key Audit Matters.”

(Shango from PWC Inc., p.2, 2017)

“The Audit Committee fulfils an important role in a properly functioning capital market like South Africa in overseeing the external audit process and making the auditor appointment decision. MAFR undermines this responsibility and takes away the audit committee’s freedom to decide which accounting firm best meets the needs of the company and its shareholders. It conflicts with their statutory responsibilities under the Companies Act. As such MAFR reduces the audit committee’s ability to fully discharge its oversight responsibilities and in turn disenfranchises shareholders’ ability to obtain the highest quality audit in the most efficient way.”

(Shango from PWC Inc., p.2, 2017)

From EY Inc.

"Robust independent oversight including inspections and transparency can support audit committees in their statutory role and responsibility towards auditors enabling them to take better, more informed decisions in tender processes and in the (pre)approval of appropriate non-audit services. Robust independent regulatory oversight would contribute to the discharge of audit committees' responsibilities rather than taking away responsibilities which would be the case with MAFR."
(Bourne from EY Inc., p.2, 2017)

"Effective (Independent) Engagement Quality Control Review - The engagement quality control review (EQCR) process plays a significant role in ensuring audit quality by providing an independent evaluation of the key judgments made. It serves as a safeguard in ensuring that the audit risks have been appropriately addressed and the audit opinions issued are correct and sufficiently supported. This task is carried out by the engagement quality control reviewer who is experienced and whose role is to challenge the opinion of the key audit partners."
(Bourne from EY Inc., p.2, 2017)

"Every public and state owned company has to have an audit committee. This is designed to underpin auditor independence."
(Bourne from EY Inc., p.3, 2017)
"Audit committees should be required to report more detail as regards their interaction with the auditor, including both their consideration of appointments or reappointments and the basis on which they assess the auditor's effectiveness and their independence. In this connection audit committees should have the option to set a minimum term for the audit engagement mandate. Audit committees could then be required at the end of each mandate to re-assess the audit contract. The shareholders should be informed of the results of the Audit Committee's reassessment and, when the auditor is proposed for reappointment, their decision to initiate or not a formal tender process."
(Bourne from EY Inc., p.3, 2017)

"Whilst we understand from the Paper that IRBA have sought the opinion of certain investors on the JSE, we believe that the majority view of shareholders needs to be respected in our democracy. This has been demonstrated in recent Annual General Meetings where voting patterns have indicated the overwhelming majority of shareholders voted in favour of the reappointment of auditors whilst fully informed of the incumbent firm's length of tenure. We are of the opinion that this is the most appropriate way to approach the matter of auditor appointment with shareholder participation in the decision-making in line with the exercise of their ownership rights."
(Bourne from EY Inc., p.5, 2017)

"Disenfranchises shareholders and undermines the authority of those charged with corporate governance. By forcing companies to change auditor, audit committees and shareholders are unable to retain the best available firm for the job. The Institute of Directors in South Africa have publicly expressed their views to this effect. This will conflict with directors' duty to act in the best interest of their company if they believe the incumbent will provide a better quality audit than other available firms. Similarly it will disenfranchise shareholders who are the owners of the company subject to audit. They will not be able to exercise their right to choose the best firm for their audit."

(Bourne from EY Inc., p.5, 2017)

From Deloitte Inc.

"Clearly, MAFR will directly impact the perceived lack of independence in the case of long firm tenure. However, since the introduction of the IRBA requirement for firms to disclose the length of audit firm tenure at a particular client, audit committees and shareholders (especially the Public Investment Corporation) are well aware of this matter. We have seen this issue receive attention at both audit committee level and at companies' annual general meetings with a number of listed companies either already changing audit firms or initiating a process to consider a change in audit firm. We believe that this is a sensible approach as those charged with governance, and shareholders, are best placed to balance the risk of long tenure (e.g. perceived or actual lack of independence) with the benefits thereof (e.g. knowledge of the business, understanding of the key risks, etc.)."
(Bam from Deloitte Inc., p.5, 2017)

"The Paper does not consider the existing measures (audit partner rotation, approval of non-audit services, IRBA Code Independence requirements, audit committee verification of auditor independence, etc.) and the effectiveness of these or how these could be enhanced."
(Bam from Deloitte Inc., p.9, 2017)

"The introduction of MAFR would force the audit committee of a company to change its auditor and would deprive it of its right to make an informed decision in the best interests of the company."
(Bam from Deloitte Inc., p.11, 2017)

From KPMG Inc.

"MAFR would undermine the audit committee's ability to choose the best auditor for the job, and determine whether a change in auditor and the timing thereof is in the best interest of the company and its stakeholders."
(Oddy from KPMG Inc., p.3, 2017)

"Based on the current information in the consultation paper there is no evidence to support that MAFR enhances auditor independence given the extensive governance measures already in place in South Africa."
(Oddy from KPMG Inc., p.5, 2017)

The South African Institute of Chartered Accountants (SAICA)

"Possible challenges or concerns or disadvantages exceed the potential benefits or advantages, and there should be a greater focus on enhancing measures that already exist rather than adding additional measures, such as MAFR."
(SAICA, p.5, 2017)

"Participants at the MAFR Indaba called for the IRBA to consider the implications and alignment of requirements dealing with auditor independence in existing legislative frameworks, such as the Companies Act of 2008. This decision has a direct impact on companies and shareholder rights and one would expect that any amendments be made in the Companies Act, considering this Act imposes specific responsibilities on the audit committee as it relates to the appointment of auditors, and affords shareholders specific rights in this regard."
(SAICA, p.6, 2017)

RESEARCH OBJECTIVE

As the above literature review, existing regulations in South Africa and the summary of certain stakeholder responses to the IRBA consultation paper indicates, there is an important role of professional judgement currently in operation in South Africa. This role of professional judgment, especially that exercised by audit committees and the auditors themselves, appears to be under threat by the prospect of regulation forcing audit firm rotation on South African audit firms. Current regulations allow a high degree of the exercise of judgement on the question of the independence and suitability of the auditor. This judgement is provided by both sides of the audit engagement on JSE listed companies, namely the audit committee exercising its Companies Act statutory duties, and the auditors exercising their responsibilities in terms of professional standards such as the code of ethics governing auditors (the CPC).

The objective of this paper is to document and analyse the opinions of senior audit practitioners regarding whether MAFR regulation of auditor independence removes or reduces the need for stakeholders such as shareholders, audit committees and the auditor themselves to apply professional judgement in regard to auditor independence. It is clear from the official responses of the "big 4" audit firms that audit firm rotation will do that. However, it is important to understand the opinions of individual audit partners and to consider the opinions of non-"big 4" audit firms.

According to Hay (2015) in a paper discussing current auditing areas in need of research, the issues at the frontier of auditing research include two kinds of research questions, namely those that emerge from current practical problems or issues, and those that develop from previous research. According to Hay (2015) a high proportion of research areas in auditing are linked to professional concerns. It is submitted that the role of professional judgment, especially that exercised by audit committees and the auditors, in maintaining auditor independence, is an example of a current practical concern in the MAFR debate and this fact has been established above.

RESEARCH METHODOLOGY

This study is an exploratory study that employs a qualitative research methodology. Qualitative studies aim to explain the ways in which people come to understand and account for issues, events and behaviours in their lives. Therefore the data gathered covers the perceptions, opinions and reasoning of the participants based on their unique experiences of areas related to the topic studied.

Semi-structured interviews were conducted with experienced audit partners across a number of audit firms nationally to understand their individual opinions, not their official audit firm opinions, with regards to the impact MAFR may have on their exercise of professional judgement.

A semi-structured interview is a qualitative method of inquiry that combines a pre-determined set of open-ended questions (questions that prompt discussion), with the opportunity for the researcher to explore particular themes or responses further. This type of interview does not limit respondents to a set of pre-determined answers, unlike a structured questionnaire for example (Dearnley, 2005). Semi-structured in-depth interviews are the most widely used interviewing format for qualitative research and can occur either with an individual or in groups (DiCicco-Bloom and Crabtree, 2006). The open nature of the questions encourages depth and vitality in the responses by the interviewees and allows new concepts to emerge over the course of the interviews (Dearnley, 2005).

The population and the selection

The population to be analysed are audit practitioners otherwise called "audit partners" or "audit directors", from the official list of Johannesburg Stock Exchange (JSE) accredited audit firms. Smaller, non-accredited audit firm practitioners have not been considered based on the reasoning that if MAFR is implemented in South Africa it would only apply to JSE listed companies (IRBA, 2016b), which the smaller audit practices do not service with assurance work.

This study employs a purposive sampling technique, also known as judgmental, selective or subjective sampling. Purposive sampling is a type of non-probability sampling which focuses on sampling techniques where the units that are investigated are based on the judgement of the researcher, rather than on statistical techniques (Tongco, 2007). Purposive sampling technique is most effective when one needs to study a certain domain which contains knowledgeable experts. According to Tongco (2007), in choosing a sampling method for informant selection, the question the researcher is interested in answering is of utmost importance and it is especially important to be clear on informant qualifications when using purposive sampling.

Fourteen experienced practicing "registered auditors" were selected from nine different audit firms in order to perform the interview (refer to Table 1 below). According to DiCicco-Bloom and Crabtree (2006) in-depth interviews are used to discover shared understandings of a particular group and the selection of interviewees should be fairly homogenous and share critical similarities related to the research question. This selection of audit partners is therefore the homogenous group that share critical experience related to the research question. The selection is also considered to be fairly representative of the population of registered auditors in South Africa, especially considering that the audit partners selected were involved in the senior leadership of their respective audit practices and were considered sufficiently experienced as audit practitioners, having worked for many years in the capacity of audit partner.

The commonly agreed and recognised distinction between the audit firms (Marx, 2009; Rapoport, 2016) has been used in this study and is as follows:

- "Big four" audit firms refer to the largest four accounting and audit firms globally, namely Deloitte, PricewaterhouseCoopers (PwC), Ernst & Young (EY) and KPMG. These four firms are also referred to as "large-tier" firms (ICAEW, 2016).

- The non-big four firms are either mid-tier or small-tier firms depending on their respective global size, global presence and capabilities as an audit firm in terms of resources (ICAEW, 2016; Rapoport, 2016).

The researchers and the participants in this study used these terms in the interview discussions.

Table 1: Description of the audit partners (participants/respondents) interviewed:

Designation of Participant in Analysis of Results	"Big four" or "Mid-tier" or "Black-owned Mid-tier" firm	Position	Years as Practicing Audit Partner
Audit Partner 1	Big four	Senior Partner	25
Audit Partner 2	Big four	Managing Partner	20
Audit Partner 3	Big four	Senior Partner	25
Audit Partner 4	Big four	Senior Partner	9
Audit Partner 5	Big four	Senior Partner	23
Audit Partner 6	“Black-owned” Mid-tier	Managing Partner	22
Audit Partner 7	“Black-owned” Mid-tier	Managing Partner	23
Audit Partner 8	“Black-owned” Mid-tier	Senior Partner	29
Audit Partner 9	Mid-tier	Managing Partner	32
Audit Partner 10	Mid-tier	Managing Partner	17
Audit Partner 11	Mid-tier	Senior Partner	16
Audit Partner 12	Mid-tier	Managing Partner	33
Audit Partner 13	Mid-tier	Managing Partner	28
Audit Partner 14	Mid-tier	Senior Partner	7

The following is a description of the fourteen practitioners interviewed:

- All the partners were considered senior and highly experienced, ranging between seven and thirty-three years as a practicing audit partner. The average number of years as a practicing registered auditor of all interviewees is 22 years.
- Seven of the partners were either a regional or a national managing partner in the firm and therefore in key leadership and strategic roles within their respective firms. The remainder were senior partners who also held significant leadership responsibilities and portfolios within their respective firms or network of firms.
- The audit firms were selected from Johannesburg and Cape Town offices of the network firms.
- Of the fourteen partners, two were women.
- The two largest black audit firms in South Africa, namely SizweNtsalubaGobodo Inc. and Nkonki Inc. were represented. These two firms are the largest “black-owned” audit firms in South Africa and have grown to considerable size to rival the traditional “mid-tier” firms. Five partners were from the “big four” international audit firms.
- The remaining partners were from the “mid-tier” audit firms (including the “black-owned” medium size firms) who also perform audit services of public interest entities.

Interview process and methodology

Each interview was held in person with the respective participants and lasted between one and two hours, the discussion audio being electronically recorded with the express permission of each participant. Each participant is held on audio record as giving permission to record the interview, on the condition that all personal names, firm names and client names mentioned in the discussion will not be made publically available or mentioned in any research output produced for public use.

Important Note

The interview questions covered multiple aspects relating to mandatory audit firm rotation (MAFR), however, as outlined in the research objective of this paper, the purpose here is to present and analyse the findings that have a bearing on the aspect of professional judgement. Hence, the open-ended question asked of the participants, relevant to this aspect of MAFR is as follows:

QUESTION: Do you foresee any direct and indirect consequences, including any unintended consequences, of IRBA moving towards MAFR?

The above question is open-ended and did not lead the participant into suggesting that professional judgement (by auditor or audit committee) was under threat. This is important for the methodology of open-ended interviews. The questions should not direct or lead the participants towards preconceived aspects of the study (DiCicco-Bloom and Crabtree, 2006).

According to Leedy and Ormrod (2010), qualitative data analysis ideally occurs concurrently with data collection so that the researcher can generate an emerging understanding about research questions, which in turn informs both the sampling and the questions being asked. This was certainly the case within this study as the interview process was being conducted, as new opinions documented fed into and shaped the subsequent discussions with interviewees. This iterative process of data collection and analysis eventually leads to a point in the data collection where no new categories or themes emerge, referred to as saturation, signaling that data collection is complete (DiCicco-Bloom and Crabtree, 2006). Saturation is believed to have been reached in these interviews in the sense that no new themes or categories surrounding the question of mandatory audit firm rotation (MAFR) emerged in the last interviews, indicating that the selection of fourteen practitioners was sufficient for the purpose of the study, which is to understand the breadth of the concerns and opinions of the audit profession. The selection of participants is not intended to be “representative” of the population, and indeed they cannot be, considering the small percentage of the population represented.
The aim of this research is not to develop new theory, but rather to consider whether mandatory audit firm rotation (MAFR) has the potential to reduce the need for, or practice of, professional judgement to the assessment of auditor independence.

SUMMARY AND DISCUSSION OF THE FINDINGS

All the audit partners agree that the audit engagement and the choice of the auditor, as well as any non-assurance services required, is a decision of both the audit committee, being those charged with governance by the shareholders, as well as the auditors themselves. The audit committee, whose existence is a legislative requirement in South Africa for a public interest entity (section 94 of the Companies Act), is ultimately responsible for the recommendation for the nomination and the replacement of the auditor, subject to approval by the shareholders. The decision of whether or not to ask the auditors for non-assurance services and whether or not to place the audit out for tender, is ultimately in the hands of the audit committee, being those charged with governance by the shareholders.

All the partners interviewed agreed with the reasoning that the best means of improving auditor independence is actually to improve the quality of corporate governance in the audit clients, rather than through MAFR. Improving the quality of the non-executives on the audit committees, possibly through education and promotion of King III/IV Report principles of corporate governance, was believed to be a means of having a greater impact on auditor independence and audit quality.

Some partners had experience as audit committee members, as well as in their capacity as audit partners, and they expressed that the Audit Committees that they have served on over the years and continue to serve on currently, take auditor independence very seriously. Other partners expressed some mixed experiences regarding the experience and effectiveness of audit committees. South Africa is very highly rated in terms of its standards of corporate governance, namely the World Economic Forum Global Competitiveness Reports (GCR), including the latest 2015-2016 Report (World Economic Forum, 2015). Referring to this fact, many partners stated that, in their experience, often both sides of the audit engagement, the auditor and the audit committee, take independence matters very seriously.

Quote 6 (Audit Partner 1)
"the Audit Committees that I have served on over the years and continue to serve on now take auditor independence very seriously. Our firm and my experience of the other big firms, I can't talk for the smaller and medium sized firms… the audit firms themselves take auditor independence extremely seriously… If you just consider that South Africa is the pre-eminent market as far as implementation of corporate governance King III etcetera is concerned, it really is at the top of its game. And those Audit Committees are very diligent and they take all of the issues - not just auditor independence, all of their budgetary duties… very seriously."

Providing examples of strong audit committee action, some partners illustrated that, in their view, when the opposite is the case, i.e. weak governance by the audit committee, this is when there is the greatest potential for independence of the auditor and audit quality to be compromised. Weak audit committees resulted in threats to auditor independence and this should be acknowledged by the IRBA before regulatory changes such as MAFR impose change on the auditors only.

A few audit partners were of the opinion that in their experience there is actually a deficiency in the functioning of the audit committee and this deficiency needs to be addressed before MAFR, or any other audit regulation, is considered. An interesting dissenting view came from a mid-tier firm partner who expressed the occasional failure of audit committees, although the person was in favour of strengthening corporate governance as a better approach than MAFR. In their experience there is a tendency sometimes for audit committees, and audit committee chairpersons, to firstly favour certain audit firms or secondly, not consider the need to replace auditors periodically to remove the familiarity threats.

Quote 10 (Audit Partner 10)

"What we experience is, particularly in the mid-tier, is that, if the FD is a big four, he is totally prejudiced against everybody outside. And normally you will find that, where there is a change, the firm that he trained at, somehow gets included, or ends up getting the job. I am not necessarily talking about listed companies, let's say larger companies, not listed… And then what we experience with, let's say larger or mid- sized businesses that are not listed, is that, there's a perception that they are auditors, it's almost like it's a given, it's almost like he is the manager, it's like a permanent employment contract in a way… and to remove them is to "fire them". Yes. So I think [improving governance practices] would improve independence, like as you say the relationship is two-sided and the stricter they are in their corporate governance the better the auditor needs to behave I suppose, if you want to call it that."

One partner, with extensive experience as both an audit committee member and chairperson, as well as auditor, expressed a concern that in their experience the audit committee's independence from management can negatively affect their quality as a committee, especially as it related to managing external audit as required by the various codes of corporate governance and the Companies Act. Too often management is handling issues that are clearly the mandate of the audit committee and the audit committee acts as the "rubber stamp", simply ratifying management's decision in these issues.

Quote 11 (Audit Partner 7)

"I do believe in the sternness of my profession and I do believe that most of the audit partners and the firms do uphold independence. But there is one thing that is a threat to it. Can I call it a threat? It is the practicality of an audit partner's wish to retain an audit being linked into the relationship with management. Versus being linked to the audit committee and to the shareholders. For me, that's the only thing that needs to be changed is if we need to uphold independence."

Referring to certain key issues that are the responsibility of the audit committee to manage, the above partner made the point that sometimes key issues that should be the jurisdiction of the audit committee were dealt with by management and decided upon, before reaching the audit committee. A number of respondents expressed this concern around management involving themselves in audit committee matters. As it pertains to auditor independence, the problem expressed was that the audit committee receives the result of management decisions regarding key audit issues, such as an audit misstatement uncovered by the auditor, issues around terms of the appointment of the auditor, or non-assurance services to be provided by the auditor. The decision making should however happen the other way around i.e. the audit committee consults with the auditor, makes the relevant decisions, and then notifies management. In this partner's view, sometimes the audit committee is even guilty of actively requiring the auditor to settle a key issue with management, rather than being the key player in the decision. The specific example given was the audit committee requiring management to approve the audit fee and if they had done so, the committee would simply "rubber stamp" the agreement. Any debate around the audit fee becomes one that is between the auditor and client management, with the audit committee willingly sitting on the side-line, in direct contravention to corporate governance codes of best practice.

Quote 12 (Audit Partner 7)
"Before we even hear about it as the audit committee, management will box it down and these guys are so scared to bring it forward. Then management box it down. By the time it comes to the audit committee it is a "by the way", watered position. Because the management is there and these guys are presenting and they are really prepared to fight for it. The audit committee normally takes a very bad stance of saying "management sort it out with the auditors", and for me that is the only thing that threatens the independence of our profession."

Quote 13 (Audit Partner 7)
"For the audit fee to be approved the audit committee asks 'have you agreed it [the fee] with management?' 'Management do you agree?' 'Yes?', then yes we are happy and it's done. The moment there is a debate in an audit committee between management and the auditors about the fee the audit committee chair, or the audit committee itself says, 'please go and sort it out and report back.'"

The respondents often provided examples from past experience, such as one partner describing a situation whereby he/she was a member of an audit committee and management simply told them that the audit was going out for tender. Management then went so far as to provide the audit committee with the short list of firms that had tendered for the role. If this reality presents itself in a company, and if it is tolerated by the audit committee, the result is clearly an ineffective audit committee and poor corporate governance practice. In addition, as this partner points out, if this is the way decisions are made in the company regarding the audit function, the auditors now need to manage their relationship with management. Managing the relationship with management and thereby impairing auditor independence is seen as a necessary means to retain the audit work, since management are effectively performing the role of the audit committee and the non-executives. Therefore this relationship with management creates a clear conflict of interest for the auditor and impairs their independence. It was expressed that if management do not like the auditors or feel that they are too expensive or raising too many audit adjustments, then management can either put the audit out for tender. And this reality is the case regardless of whether there is audit partner or audit firm rotation. The problem exists in both legislated environments, whether there is MAFR or not. Either way there is a lack of independence that will reduce audit quality significantly. It was expressed that this is the problem that the regulator (IRBA) should be looking to address, and MAFR is not the solution. Rather, in the opinion of some of the partners, measures to educate non-executives, and strengthen the corporate governance, will have the greatest impact on auditor independence. Another suggested solution to this was better informed and more active shareholders who ensure the independence of the audit committee board members (non-executives) and who appoint auditors based on this independent recommendation from the audit committee, as is the intention of the Companies Act and the King III/IV Report on governance.

Many respondents expressed similar concerns of a lack of professionalism, knowledge of role and independence in the operations of the audit committee. The partners had experienced many strong and independent audit committees, but unfortunately the "rubber stamp" system is a problem in more than a few companies.

Quote 14 (Audit Partner 6)
"In reality, what I've seen, the audit committee does not use its power at all and in fact you will see and if you track the evolution of the audit profession, there has been concern that management tends to be dominating… they do everything. Virtually all audit opportunities when the client needs a new auditor, management runs the show and in fact it's management's decision and the audit committee frankly, what they do, is rubber stamp."

Some of the audit partners expressed the opinion that the weakness in corporate governance lies not in its principles, as South Africa has some of the best governance principles and structures in the world. All the partners were well aware of the findings of the Global Competitiveness Reports (GCR) in this regard. Rather, the problem lies in its execution in some companies, and of most concern was the need to strengthen the role of the non-executive director. The quality of the non-executive directors needed to be improved in the opinion of many respondents, especially their understanding of King III/IV corporate governance principles, and their degree of independence from the company.

Quote 7 (Audit Partner 12)
"We are 'beating the pack' anyway so why more corporate governance [referring to the Global Competitiveness Reports issued every year by the World Economic Forum]. We are beating the pack worldwide, we have good governance and it's vigorous and you know if you follow the principle set out for the independent non-executives it's that they are not independent. I have a beef with a non-executive director who's been there for twenty years - so where is the rotation? So for twenty years as a non-executive you'd say well you are not independent, so you know rather look at the independence of the non-executive directors through the IOD (Institute of Directors) and other lobby groups and King III as opposed to the auditors. I think the auditors are a lot more independent than the non-executive… so you know you don't want the CEO's friends as non-executives. You want true non-executive directors… but the guys do take their job seriously. Many non-executives take their job seriously. You know our Audit Committees have very vigorous processes. I attend a lot of Audit Committees and it's a very vigorous process. It's dependent on the non-executive and the strength of the non-executives, versus the executives and I think we have got good non-executives [in general] than in some smaller company where it is way too cosy. You know we've had corporate failures where the non-executives have never seen the financials and all those kind of things because those shouldn't be in the profession."

There was a generally expressed concern around the quality and independence of company non-executive directors as specifically identified by other partners. In South Africa, and certainly on exchange listed companies, it is the non-executive directors who comprise the audit committees. Frustration was expressed that the reality of their experience is that non-executive directors are sometimes not being appointed because the shareholders really believe that they should be, or that the audit committee really believes that they are the right firm for the job. The appointment is made because the CEO and CFO believe they should be, and this, in their opinion, is a major problem in South Africa and likely globally. This is a problem that they believe is not being acknowledged and needs to be addressed.

Quote 15 (Audit Partner 7)

"Sometimes I sit back and I say; is it because the audit committee believe they are here because of management? Do they also feel threatened that if management don't like me, they might say I must actually leave the board? I have often had those couple of questions in my mind - to say it looks like the issue is the lack of independence of the audit committee members in the first place. And now when you start to look into it you start to see the retired [audit] partners, or not necessarily retired partners, but retirees sitting in these audit committees, so it is their only source of income! So maybe it is important for them to keep on, you know. Because now a person is sixty five, seventy… and that's where they get their income from. So maybe there is reduced independence even at that level."

Whereas all the audit partners interviewed believed auditor independence can better be established and strengthened through proper corporate governance at the audit client, this should not be construed as though they believe that corporate governance practices in South Africa are weak. On the contrary, a number of audit partners (as above) referred to the GCRs issued every year by the World Economic Forum which rate South Africa's "strength of auditing and reporting standards" 1st out of 140 countries researched, the "efficacy of corporate boards" 3rd and "strength of investor protection" 14th, based on the 2016 Report (World Economic Forum, 2015). Together with the general recognition that the South African King III Report on Corporate Governance is one on the best governance codes available, it was the opinion of many that the discussion around MAFR should take into account that South Africa is in a strong position from a governance and auditing standards perspective, relative to other developed and developing countries. One partner made the point that, considering the strength of South Africa's corporate governance and auditing standards, as externally verified, they seriously question the assumption that MAFR would actually improve audit quality. The IRBA needs to answer this question: Will it really improve audit quality? If it cannot be convincingly shown to improve audit quality then it should not be pursued.

Quote 8 (Audit Partner 1)

"the perception might be different [referring to the public's view of South Africa's commitment to corporate governance and auditing standards, including its implementation thereof] and so I suppose my point of departure would be I have to seriously question that mandatory rotation is in any way going to [improve audit quality]"

A common concern raised was that MAFR would have the effect of removing the need for much important discussion and decision-making by the audit committees and therefore take away their role as the ultimate "auditor gatekeeper" and assessor of the audit function within the company. Currently the audit committee must, in terms of the Companies Act, approve non-assurance services required of the auditor and formally assess the independence and suitability of the auditor to the company. The feeling was that MAFR would take this important judgement and control away from the audit committee and replace it with simple rotation regulation. The audit committee would no longer have the incentive to take auditor independence and auditor suitability (to the company) seriously. The audit committee would no longer apply its collective mind to the issue of auditor independence, certainly not to the degree expected in terms of corporate governance principles outlined in the King III/IV

Report, because it would be believed that the issue was dealt with by regulation, not by the audit committee. Why should the committee concern itself with threats to auditor independence, especially in light of non-assurance services and familiarity through relationships with management, when the firm would be replaced as a matter of legislation in due course? It was felt (by many partners) that mandatory rotation would artificially limit the freedom of those charged with governance to appoint the audit firm which best meets the needs of the company and its stakeholders.

Quote 9 (Audit Partner 1)
"If I were an Audit Committee member or an Audit Committee Chair, I would resent the responsibility or the power that I inherently have as a non-executive being taken away from me. I would much rather see the focus on improving audit governance. Because that is where the responsibility is. It is the Board of Directors that has the fiduciary duty." This particular partner is currently, and has been in the past, an audit committee member on public interest entity audit committees.

These views by the partners interviewed reflect a common international argument against MAFR in that auditor rotation would now be arbitrarily forced on a company, regardless of the stage or set of specific circumstances that the company finds itself in. For example, just when a company needs the experience of its long standing auditors, for example in merger or acquisition deals, or in an operational change of direction, which would present significant audit risks, this may coincide with the need to rotate the audit firm, with the incoming audit firm at a significant disadvantage due to unfamiliarity of the client.

All the audit partners interviewed expressed concern over the degree of regulation in the profession. In fact it is fair to say that the issue of over-regulation resulted in the strongest opinions and even frustration amongst the partners. Many were particularly concerned over the public inspections reports performed by the IRBA and feared that additional regulation was damaging the ability of the practitioners to make professional judgement calls, something absolutely necessary in performing an audit, and which the International Standards of Auditing (ISAs) strongly require of the auditor. The concern was simply that MAFR would be another unnecessary regulation in an already over-burdened profession.

Quote 40 (Audit Partner 5)
"So I'm saying there's a lot there that's going to lighten or reduce the expectation gap when it comes to stakeholders and users, because they'll be able to read each audit report [which] will be specific. It's not going to be a template. They will be able to understand... And independence and all of that, rather than just coming with a rule if it's mandatory. We are principles-based at the end of the day. And we're relying on judgement from the profession and from the Audit Committee. Both sides of the engagement are applying their minds and their skills and they're qualified to do so… Doesn't that make us a profession? That fact that we exercise professional judgement? We don't tick boxes. The more we tick boxes… that will directly affect the quality of what we do. That's where the regulator needs to get a balance... I hope common sense prevails. I think we've got a lot of checks and balances in place. I mean enhancing existing structures and I'm not one in favour of rules. We are principle-based, we must deal with it and the King Codes have done tremendous work over the years with the Institute of Directors."

CONCLUSION

The findings indicate that the audit partner's opinions are mixed regarding their experiences with audit committees. Some believe the standard of audit committee judgement to be of high quality and independent. Some expressed it as sometimes being the opposite, i.e. they have found some audit committees to "cosy up" with management and therefore lose the independent and objective judgement that principles of corporate governance require of them. As such, these audit partners believe that sometimes audit committees are to some degree ineffective and are guilty of "rubber stamping" decisions that management have made already.

However, nearly all the participants acknowledged the world class and internationally recognized corporate governance standards in South Africa, as shown by the annual World Economic Forum Global Competitiveness Reports rankings. This is significant as it stands to reason that if audit committees applied the high quality standards appropriately and if audit committees were appropriately independent of management and experienced, then there would be no auditor independence problems on JSE listed companies. The audit committee is the key gatekeeper of auditor independence and if this role was being performed appropriately then it is submitted that there would be no need for MAFR.

All the partners expressed the opinion that the audit profession, as a profession, is capable of applying its own professional judgement, using the international auditing standard guidelines, to self-assess their independence from the audit client. All the participants believed the existing codes and the five year audit partner rotation rule was sufficient. None of the audit partners were in favour of regulating independence through the use of MAFR.

Professional judgement, as applied by the auditor as a self-assessment of independence, as well as by the audit committee as an independent assessment, was preferred in comparison to legislated audit firm rotation as intended by the regulator. There was a general agreement that audit firm rotation regulation would indeed reduce, or eliminate entirely in some partner's views, the need for professional judgment, and that this would be a mistake.

Limitations of the study

This study is not representative of the audit profession, considering its limited number of participants. In addition, this study analyses only the perceptions and opinions of audit practitioners, albeit very senior practitioners who have extensive experience as engagement partners on public-interest entity audits and in engagements with audit committees and shareholders. Other stakeholder group opinions need to be analysed.

In addition, the research has focused on the use of professional judgement as an alternative to MAFR. No other suitable options were considered but this may be a future area of research.

Finally, a key limitation of the paper is a limitation experienced by much of the international research conducted on MAFR, which is the fact that the study does not consider any measurable effects of MAFR. The most significant academic contributions to the MAFR debate will be the research that analyses the measurable effects of MAFR in jurisdictions whereby MAFR has been implemented. As discussed in the literature review, at least three such studies have been performed in an Australian, Spanish and Italian context. All three provided findings decidedly against the implementation MAFR, showing that MAFR does not improve auditor independence or financial reporting quality. South African legislators and regulators should consider these findings carefully before making a decision on MAFR. Further research by South African academics is also needed.

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AUD029 **The relationship between executive directors' gender and remuneration: A preliminary study**

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ABSTRACT:

The South African transformation has historically been about race and the need for gender equality. Women are still scarce in top leadership positions in wealthy societies in spite of gender equity in education. This paper presents preliminary findings on differences between the remuneration of male and female executive directors of a sample of South African listed companies. The results suggest that even well after the establishment of democracy in 1994, gender-based differences are noted in remuneration policies of large listed companies This study indicates that the gender pay gap in executive directors does exist. Furthermore, the results demonstrate the continuing relevance of Hofsted's cultural theories for explaining observed practices in a corporate context. With South Africa characterized as a masculine society, it comes as no surprise that male and female directors are remunerated differently The study concludes with areas of further research.

Key words
Gender equality; pay gap; King IV; remuneration policies

INTRODUCTION

South African transformation has historically been about race and the need for gender equality. After South Africa's first non-racial elections in 1994, a transitional government adopted the call to eliminate discrimination against gender (Seidman, 2001). Nevertheless, despite decades of anti-discriminatory legislation, the gender pay gap still exists and it is not declining (Kulich, Ryan, Haslam, and Renneboog, 2011).

The gender pay gap is suggested to be a result of productivity-related attributes, for example interrupted labour-force participation and educational qualifications (Elkinawy and Stater, 2011). In most cases, the unexplained component of the wage gap cannot be explained by human capital variables, i.e. productivity-related attributes, which is potentially due to discrimination (Joshi, Makepeace and Dolton, 2007).

Women are still scarce in top leadership positions in wealthy societies in spite of gender equity in education (Acker, 2009). PwC (2017) indicated that, since 2015, there has been a small increase of 1.3% in the global female representation on boards of directors, with 9% of global CEO's being female. PwC (2017) reports that countries have started a process in which laws and regulations would enforce female participation in the management of companies, giving focus beyond annual reports. These laws are passed for a variety of reasons, one being that women add value to the boardroom (Dunn, 2012). There is also great public interest in the level of executive pay, as public concern about executive pay is about fairness (Gerhart, Rynes and Fulmer, 2009). Research suggests that female executive director's presence serves the companies interest to build links to its environment and bringing strategic input to the boards they serve.

As the average age of female directors is usually younger than her male counterpart, the board benefits from the infusion of new ideas (Van der Walt & Ingley, 2003). Dunn (2012) states that surveys have indicated that not only is there no shortage of talented women who can be appointed on executive positions, female executives are often more talented and more qualified than their male counterparts (Dunn, 2012). Yet, despite the benefits of having female executive directors, women remain under-represented on large boards (Dunn, 2012). PwC (2017) confirms this by stating that only 9% of CEO's are women and only 6% of women are non-executive directors. While women have had great strides in terms of gender equality with legislation, unexplained differences in pay remain a widespread concern (Elkinawy and Stater, 2011). On average, according to Allen and Sanders (2002) and PwC (2017) women's earnings are materially lower than their male counterparts.

Bertrand and Hallock (2001) have indicated that, in the past, there have been two barriers in conducting an investigation on gender compensation among top executives. Firstly, the required data did not exist. Secondly, it has been widely believed that too few females were in these top positions to carry out a formal analysis of their remuneration. While the debate of whether executives are overpaid has become an annual occurrence, there has been little attention on female executives who get paid significantly lower than their male counterparty (Shin, 2012). In addition, what limited research has been carried out on remuneration differences between male and female directors tends to ignore the African context. More specifically, to date, there has been insufficient research on whether or not male executive directors of listed companies are paid significantly more than their female counterparts in South Africa.

In this context, this paper presents preliminary findings on differences between the remuneration of male and female executive directors of a sample of South African listed companies. The study concentrates on base pay and variable bonuses but excludes share options and other types of remuneration. Examining variations in the type of remuneration used to compensate male and female directors is deferred for future research. It should also be noted that the research concentrates on the period 2009 to 2011. This is because this working paper seeks to provide an initial reference for exploring changes in remuneration practises. As explained in more detail below, the study focuses on the period before companies have adopted and applied the new integrated reporting formats. This allows the research to establish a base for future researchers wishing to examine how integrated reporting and, more recently, King IV has impacted local remuneration policies and practises.

The reminder of this paper is structured as followed: a literature review provides context and deals with some of the prior research on corporate governance, remuneration reporting and gender inequality. This is used to provide a basis for the research questions tested by this paper. The method is then discussed followed by the results and analysis of findings. The conclusion section summarises the results of this preliminary study and presents areas for future research.

LITERATURE REVIEW

Corporate governance research

There is a large body of research which dealing with developments in South African corporate governance. Rossouw, van der Watt & Malan (2002) and Maroun, Coldwell & Selgal (2014), for example, provide a theoretical framework for changes in local corporate governance. They examine the relevance of South Africa's political past, changing economic climate and growing awareness of the importance of environmental, social and governance (ESG) issues for the emergence of stakeholder-centric codes of corporate governance (see also Brennan and Solomon, 2008; Solomon, 2010). This has been complemented by a large body of working dealing with changes in corporate reporting trends.

Makiwane and Padia (2013), for instance, find a significant increase in the extent of ESG-related issues in companies' corporate reports following the introduction of King-III in 2009. The results are supported by those of Padia and Yasseen (2011), Raemaekers, Maroun & Padia (2016) and Segal, Segal & Maroun (2017) who find that South African companies are more inclined to report on their strategy, business risks and risk management strategies. Similarly, in an effort to signal their commitment to good corporate governance, companies deal specifically with the extent of compliance with codes of best practice such as those issued by the Global Reporting Initiative (Hindley and Buys, 2012) and International Integrated Reporting Council (Solomon and Maroun, 2012). Collectively, these findings are used to support the position that South African organisations are making good progress managing important ESG-related issues. A closer examination, however, reveals some issues.

Disclosures are often repetitive and generic (Stent and Dowler, 2015) with the result that they do not give a good indication of how recommended corporate governance practices are being internalised and applied by corporations (Brown and Dillard, 2014; de Villiers, Rinaldi and Unerman, 2014; Higgins, Stubbs and Love, 2014). In addition, when information is reported in an annual, integrated or sustainability report, there is no guarantee that the disclosures are a genuine account of how important ESG issues are being managed rather than an exercise in impression management (Atkins, Solomon, Norton and Joseph., 2015). This may be the case when considering companies remuneration practices and, in particular, the extent to which they are committed to equitable remuneration of male and female executives.

Remuneration practices and corporate governance

There is little prior research on South African companies' remuneration practices. Most studies deal with levels of remuneration disclosure and the extent to which companies include recommended disclosures from codes of best practice (see, for example, Nelson and Percy, 2008). Other research addresses the type of remuneration provided to executives and how this information is presented in corporate reports (Liu and Taylor, 2008). This includes the extent to which companies refrain from making remuneration-related disclosures the on grounds that the information is sensitive or may result in loss of a competitive advantage (Nelson and Percy, 2008). There is also some research on the role of corporate governance mechanisms, such as a remuneration committee, for regulating the levels of executive remuneration (Kenneth, 2014; Institute of Directors, 2016)

A related body of work takes a slightly different position. It examines how the independence of a board of directors (which might be impacted by remuneration practices) affects, for example, corporate transparency (Ben-Amar and Zeghal, 2011), the extent and quality of ESG reporting (Rao and Tilt, 2016) and commitment to the type of assurance provided over the integrated or sustainability report (Stubbs and Higgins, 2015; Maroun, 2017).

A recent report by PwC (2016; 2017) finds that companies are being more cautious about awarding large bonuses, share options or other types of remuneration to executive directors. This in response to South Africa's social context where unemployment is very high and the gap between the income of the country's rich and poor is a serious concern (de Villiers and van Staden, 2006; Standard Bank Group, 2015). The type of remuneration being granted to executives is also changing:

> Structurally, the trend towards less volatile and geared long-term incentives (share awards) remains in place 43, with share options and share appreciation rights being replaced by restricted shares, bonus shares and performance shares, which provide better alignment with shareholder interests and are more likely to avoid extreme pay-outs (PwC, 2016, p. 36)

There is also evidence of gender becoming a key consideration for boards of directors. As explained by both King-III and King-IV, a diverse board of directors which reflects South Africa's demographics and takes into account the need for black economic empowerment and gender equality is essential (IOD, 2009; IOD, 2016). As investors and other stakeholder continue to place emphasis on these social issues, in addition to financial performance (IOD, 2011; Atkins and Maroun, 2015), companies are identifying the need for an appropriately diverse board of directors as both a moral and strategic imperative (PwC, 2016).

Theoretically, the inclusion of additional female board members in traditionally male-dominated industries is easy to achieve. Women have greater access to education than ever before and are often outperforming their male counterparts in the classroom and at university (PwC, 2016). There is also evidence to suggest that women are becoming more economically active. They are estimated to account for 80% of purchasing decisions (including consumables, financial series and long-term assets) leaving them well placed to make decisions at the board level (PwC, 2016). Nevertheless, complete gender equality has been difficult to achieve. This is largely due to the underlying social context (de Villiers and van Staden, 2006; Standard Bank Group, 2015).

Female employees are often expected to forge lucrative employment opportunities due to domestic responsibilities, which are perceived as their exclusive domain[18]. This leads to a disconnect between women's aspirations and what their employers offer. A survey by PwC (2016, for example, finds that opportunities for female professionals to work outside of their home countries are often less than those provided to men. Succession planning at the senior level continues to exclude female employees even though they represent a growing proportion of the work force. Perhaps most unfortunate is the assumption that women with family commitments are unable to commit to their employers completely leading to their exclusion from senior roles (PwC, 2016).

South Africa's Constitution provides for equal education and employment opportunities for men and women. As discussed above, there have also been significant corporate governance developments which have resulted in a greater focus on gender-based equality in the workplace (see IOD, 2009, 2016). Nevertheless, complete equality has been difficult to achieve. This is evaluated in more detail by consider whether or not there are differences in the level of pay between male and female directors.

Theoretical framework and hypothesis development

The international literature suggests that a gender-based compensation gap does exist despite the numerous legislation that has been put in place to minimise the gap (Kulich, Trojanowski, Ryan, Haslam, Renneboog, 2010). As access to higher levels of education has improved for females, employment opportunities for females have increased. The number of females in executive positions is, however substantially lower than males and they usually occupy non-executive or non-core roles (Bertrand and Hallock, 2001). Van der Walt and Ingley (2003) suggests that women may play a larger strategic role than they previously did, because their experience is more aligned with the company's needs. This is not, however, a common finding. Recent surveys by PwC (2016; 2017) also show that most senior positions continue to be occupied by men that, where women are appointed to boards of directors, this is normally in a non-executive capacity. These findings imply that some gender-based inequality may be present.

Female directors seem to suffer from pay inequality in two ways. Not only are their base salaries lower than those of their male colleagues but also their variable pay (bonuses in particular). Females are rewarded significantly lower bonuses when the company is doing well as there is a positive relationship between company performance and bonuses for male executive and not for female executives (Kulich et al, 2010). Many companies use subjective criteria for at least some of their bonus payments. Boards favouring their top executives can use the discretion provided by their plans to ensure that executive directors

[18] The best illustration of this is caring for children.

are paid high bonus amounts even if their performance is substandard (Bebchuk and Fried, 2005).

Research Question 1: Is base remuneration of male executive directors significantly higher than female executive directors?

Research Question 2: Are bonuses of male executive directors significantly higher than female executive directors?

Most research regarding executive directors is dominated by agency theory (Gerhart, Rynes and Fulmer, 2009). The agency theory has been concerned with the relationship between managers and stockholders. An agency relationship is defined as one in which a principal(s) engages another person (the agent) to perform some service on their behalf, and involves delegating some decision-making authority to the agent (Hill and Jones, 1992). The 'agency cost' to the principal (shareholders) are those costs to ensure that the agency (group of executive directors) delivers the desired corporate outcomes that the principal sets out. This theory implies that if female directors are not perceived by stakeholders to be agents that are likely to deliver desired corporate outcomes, they are less likely to receive higher compensation than male directors (Kulich et al, 2010).

Agency theory does not provide sufficient guidance on the existence of gender pay gap between executive directors (Bugeja, Matolcsy and Spiropoulos, 2012). In particular, for agency theory to hold, female directors would need to receive lower compensation than their male counterparts because of a higher agency cost (ibid). This is not consistent with the prior academic and technical research. As explained above, women enjoy an increasing access to tertiary education and are often better trained/educated than their male counterparts (PwC, 2016). This implies that women are at least as competent as men and should, therefore, receive the same level of pay. In addition, while women may have domestic responsibilities which male employees are exempt from, the professional literature shows that this seldom affects their performance at work (PwC, 2016; 2017). Finally, the research suggests that the inclusion of females on boards of directors can improve corporate transparency and enhance the quality of reporting (Rao and Tilt, 2016). This should lower agency cost and result in higher pay for diverse boards. As a result, the existence of gender pay gap is more likely the result of different cultural factors that differ between nations, which could explain how a society operates (see Hofstede, 1983).

Hofstede (1983, p. 23) defines culture as 'the collective programming of the mind which distinguishes the members of one human group from another'. Hofstede (1984) identified five elements or dimensions of culture. A dimension is an aspect of a culture that can be measured relative to other cultures (Hofstede, 1993). According to Hofstede different cultures are likely to exhibit differences according to one or more of the dimensions explained below (De Mooij and Hofstede, 2010; Hofstede, 1993; Hofstede, 1983; Hofstede, 1985; Hofstede, 1983):

1. **Power Distance (PDI):** This dimension describes the degree of equality, or, inequality between people in the country's society. It expresses the attitude of the culture towards the inequalities amongst us. Power distance is defined as the extent to which the less powerful members of institutions and organisations within a country expect and accept that power is distributed unequally.

2. **Individualism (IDV):** This measures the degree to which a society reinforces individual or collective achievement and interpersonal relationships. The fundamental issue addressed by this dimension is the degree of interdependence a society maintains among its members. This dimension refers to the extent to which people are expected to stand up for themselves and choose their own affiliations. It has to do with whether people's self-image is defined in terms of "I" or "We". Individualism is contrasted with collectivism.

3. **Masculinity (MAS):** This dimension refers to the distribution of roles between the genders which is another fundamental issue for any society. This dimension reveals that women's values differ less among societies than men's values. Masculinity pertains to societies in which social gender roles are clearly distinct, i.e., men are supposed to be assertive, tough, and focused on material success whereas women are supposed to be more modest, tender and concerned with the quality of life (Khlif, Hussainey, Achek, 2016).

4. **Uncertainty Avoidance (UAI):** This dimension reflects the extent to which members of a society attempt to cope with anxiety by minimizing uncertainty. Different cultures have learnt to deal with the anxiety of uncertainty in different ways. The extent to which the members of a culture feel threatened by unknown situations and have created beliefs, and countries that try to avoid these is reflected in the UAI score.

5. **Long-term Orientation (LTO):** The long term orientation dimension describes a society's time horizon, or the importance attached to the future versus the past and present. This dimension measures the degree to which a society embraces, or does not embrace, long term devotion to traditional, forward thinking values (Khlif et al, 2015).

Hofstede's model has been applied in a number of different contexts, including corporate governance. A recent meta study by Khlif et al. (2015) provides a good overview of the corporate governance research making use of Hofstede's theory of cultural differences. In general, researchers find that there is a positive association between profitability, ESG disclosures and commitment to good corporate governance in society's characterised by low levels of individualism, high femininity and high long-term orientation. While there are some limitations associated with using Hofstede's model in a corporate reporting and governance context (Maroun, 2015), the model demonstrates that culture is more likely than not an important consideration for the development of corporate governance (Orlitzky, Schmidt and Rynes, 2003; Guidry and Patten, 2012; Fifka, 2013; Khan and Gray, 2016). This should be the case with remuneration practices.

A culture characterised by a high level of masculinity should place more emphasis on economic growth and less value on the relevance of social equality (Khlif et al., 2015). It should also value the quantitative analytical approach typically followed by men including their natural aggression, proactive stance and emphasis on material success, (Hofstede, 1984). As a result, masculine societies should see the contribution provided my male directors are superior to those of their female counterparts. This should be reflected in higher levels of base pay and bonuses for men. This is especially true when a cultural grouping has a high level of power distance which allows for differentiation between members of society and does not see pay differentials as a moral or social challenge.

Gender-based inequality in executive pay of South African directors

Hofstede's model provides scales from 0 to 100 for each 76 countries for each dimension, and each country has a position on each scale or index, relative to other countries (Hofstede, 2017). For the purpose of this study, the only dimensions that will relate to the study are Power distance (PDI) and masculinity (MAS) dimension.

Table 1 lists the scores on all five dimensions for South Africa (SA) and two other countries. The countries chosen for this study are Nigeria and United Kingdom (UK). These countries represent an African country (Nigeria), and a developed country (UK) as a comparison to SA.

Table 1: Culture Dimensions Scores for three countries

	South Africa	United Kingdom	Nigeria
Power Distance	49	35	80
Individualism	65	89	30
Masculinity	63	66	60
Uncertainty Avoidance	49	35	55
Long-term orientation	34	51	13

(Hofstede Centre, 2017)

Table 1 can be illustrated as follows in Figure 1

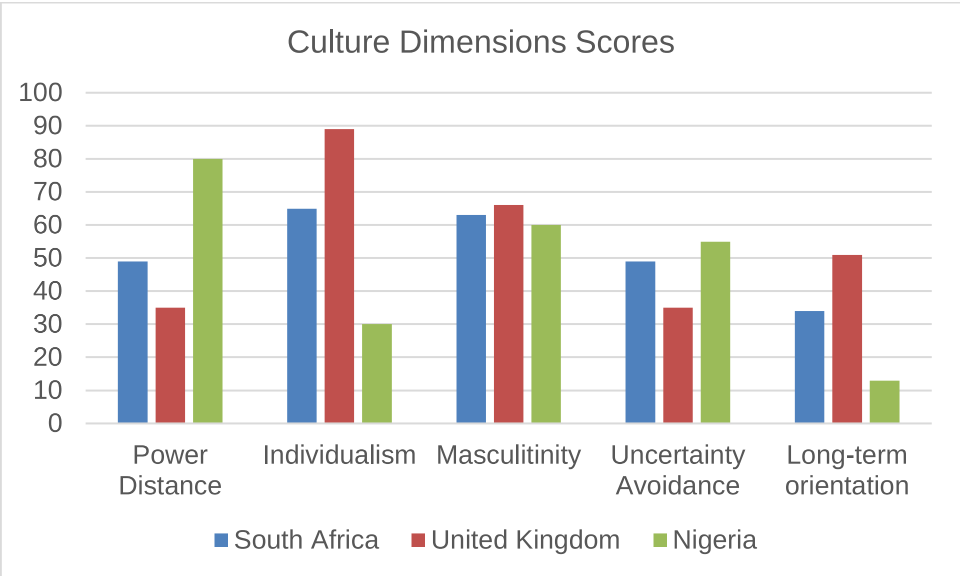

Figure 1 - Culture dimensions scores

1. Power Distance (PDI)

South Africa scores 49 on this dimension, which means that people to a larger extent accept a hierarchical order in which everyone has a place (Hofstede Centre, 2017). This high score indicates that South Africa has distributed power unequally amongst the society, and inequalities of power and wealth have been allowed to grow within society (De Mooij and Hofstede, 2010; Hofstede, 1983). Compared to Nigeria, where the power distance is very high (80), indicating that the society is more than likely to a system that does not allow significant upward mobility of its citizen (De Mooij and Hofstede, 2010). United Kingdom where it is low (35), indicating that the societies equality and opportunity for everyone is stressed. The high power index could explain the reason that fewer women than men become executive directors due to the high degree of inequality in South Africa.
Prior research has shown, women's competence is questioned more than men's and that is based on gender stereotyping (Beeson and Valerio, 2012). Females are subject to inequality if the owners of companies have a taste for discrimination against female executives, then the female directors will be paid less than men with similar qualifications working in similar companies (Elkinawy and Slater, 2011). Heilman, Wallen, Fuchs and Tamkings (2004), found that women who entered and succeeded in traditionally male dominated positions, suffered inequality in the form of being less liked and personally derogated more often than their male counterparts. Despite similar education and work background, there was a difference in male and female's salary increases (Alkadry and Tower, 2006).

The composition of executive pay is notable, due to either short or long term incentives that can total as much as 67% of an executive directors' remuneration (Kulich et al, 2010). If female directors are not perceived by stakeholders to be agents that are likely to deliver desired corporate outcomes, they are less likely to receive performance–sensitive compensation (Kulich et al, 2010). Female directors seem to suffer from pay inequality in two ways. Not only are their base salaries lower than those of their male counterparts but also their variable pay (bonuses in particular) (Kulich et al, 2010). Some companies may not offer men and women equal opportunities to gain contingent pay, and this is apparent from the treatment in the performance evaluations used to determine contingent pay (Chauvin and Ash, 1994). Females are rewarded significantly lower bonuses when the company is doing well as there is a positive relationship between company performance and bonuses for male executive and not for female executives (Kulich et al, 2010). Many companies use subjective criteria for at least some of their bonus payments. Boards favouring their top executives can use the discretion provided by their plans to ensure that executive directors are paid high bonus amounts even if their performance is substandard (Bebchuk and Fried, 2005).

Albanesi and Olivetti (2006) states that women in top executive positions tend to receive a lower share of their compensation in the form of incentive pay and a lower proportion of total earnings in the form of delayed compensation.

Masculinity (MAS)

South Africa scores 63 in this dimension, which means that this society is highly masculine and experiences a high degree of gender differentiation (Hofstede Centre, 2017). A high score on this dimension indicates that the society will be driven by competition, achievement and success (Khlif et al*.,* 2015). Males dominate a significant portion of the society and power structure, which leads to females being controlled by males (De Mooij and Hofstede, 2010). As all three countries are in the 60% range, it can be inferred that in all 3 countries, society tends be dominated the typical male patriarchy.

The distribution of roles between the genders is a fundamental issue in South Africa, as the Hofstede model portrays this society as being masculine (Hofstede Centre, 2017). Leadership is typically associated with masculine traits such as competence and the ability to influence. Females may be perceived to lack these traits and therefore have less promotion opportunities than males in a labour market segment that is for lucrative compensation for top positions (Kulich et al., 2010).

The term “glass ceiling” provides an explanation about the reason why female executives are differentially treated from males with respect to wages and promotions (Gayle, Golan and Miller, 2009). The term “glass ceiling” refers to an invisible barrier that prevents females from climbing the corporate ladder, and the cumulative disadvantage of blocked opportunities causes women’s under-representation at higher positions, i.e. executive directors (Kulich et al, 2010 and Acker, 2009). Glass ceiling is one of the most compelling metaphors recently used for analysing inequality between men and women in the workplace, and plays a crucial role in explaining the reason keeping females from reaching the top corporate positions (Kee, 2006).

According to Hull and Umansky (1997), women are at a disadvantage because of widespread policies and practices in the organizational power and control structure which favour male dominance. Therefore, female representation in the highest executive position remains very low (Forbes and Piercy, 1983). Females are treated differently with regards to promotion as males have a higher promotion rates than females (Gayle, Golan and Miller, 2009; Joshi, Makepeace and Dolton, 2007). The distribution of opportunities in a labour market is less for females than males (Gayle, Golan and Miller, 2009). The mobility into elite positions of executive positions occurs at a higher rate for males that for females (Alkadry and Tower, 2006). It has been noted that women and men in the same entry level job classification were assigned to different duties, and the men had duties that led to higher promotion opportunities than females (Acker, 2009). These duties could lead to a lack of experience, that is required for executive director’s positions, and this could be one of the primary reasons women are advancing to the top positions at a low rate (Jordan, Clark and Waldron, 2007). Beeson and Valerio (2012), explains that females are less likely to be given key responsibilities that are a critical pre-requisite to executive promotion.

Unequal opportunities and compensation for women in the executive profession could distort the career choices of women and reduce the number of women entering the profession of being executive directors (Elkinawy and Slater, 2011). Therefore, companies lacking a commitment to develop women executive directors are reducing the company’s pipeline of future talent (Beeson and Valerio, 2012).

Female directors are usually outsiders and therefore more likely to be objective and independent. Associated with increasing outside independence, there will be diminishing powers of inside directors (i.e. males). Even though this is not a direct discrimination of females, but more bias against independence and outsiders, this leads to less females occupying executive directorship position (Van der Walt and Ingley, 2003). Although females are underrepresented on executive positions, women are managing to break the gender barrier at some companies that were formally known to have an all male boards of directors (Dunn, 2012). The distribution of roles in societies between genders, could explain the pay gap with executive directors.

Allen and Sanders (2002) state that economists often turn to labour supply and demand factors to explain the difference in pay between male and female executives. Executive director positions commonly distributed to females, are usually less well paid then typical male jobs, for example minerals industry (Allen and Sanders, 2002). Females are disproportionably represented in lower paying industry's' (Chauvin and Ash, 1994; McKinsey & Company, 2016). The shifting change of demand in labour has moved demand from manufacturing sector towards the service sector (Harkness, 1996). This shift in demand has created a strong concentration of women in 'low-wage' industries, and causing pay difference in executive pay for male and females (Allen and Sanders, 2002).

The PWC (2017) report on executive directors' gender board representation shows the growth in the amount of women on board of directors has not increased as fast as was expected in their previous reports and have only grown with 1.3% since 2015. According to PWC (2017), the biggest problem is that there is not a sufficient pool of candidates to choose from when appointing women, leading to countries enacting laws and regulations to deepen the pool of suitable candidates.

METHODOLOGY

This study uses a quantitative method. The research seeks to examine if there is a statistically significant difference between the remuneration and performance sensitive incentives of a sample of male and female executives serving on the boards of companies listed on the JSE. The study is a preliminary one and does not, for example, seek to examine the complex socio-economic factors, which may explain why a remuneration gap between male and female directors exists. No effort is made to illuminate the social implications of the remuneration gap phenomenon or its effect on the individual director. Rather, the study offers an objective assessment, based on archival data, on whether or not a remuneration gap exists in a South African context.

POPULATION AND SAMPLE

The population is the directors of all companies listed on JSE's main board. This study collects data (the remuneration of executive directors) from the top 25 listed companies in the JSE. The top 25 were selected because larger companies are more likely to have more diverse boards (IOD, 2009). These companies also have the resources and public profile to attract talented directors and to remunerate them accordingly. Larger companies are also more likely to have well developed corporate governance systems including, for example, a remuneration committee and ethics committee. This means that any differential between the remuneration of male and female directors is not the result of an oversight or weaknesses in the organisations' governance.

The sample examined is taken from Satrix INDI Fact sheet for the years ending December 2009, 2010 and 2011. These years are purposefully selected as they provide insights into remuneration differences between male and female executives before the introduction and application of King III and integrated thinking business management philosophy. King III and the Integrated Reporting Framework were introduced in 2009 and 2013, respectively. A local discussion paper on integrated reporting was issued in 2011. As such, selecting periods before 2011 allows this research to concentrate on the pre-integrated reporting phase as explained in Section 1.

The mandate of the Satrix Indi portfolio is to track as closely as possible the value of the FTSE/JSE Industrial 25 index, according to market capitalisation. The initial data consisted of 25 companies for the years 2009-2011. After eliminating companies which were not consecutively on the portfolio, the sample was reduced to 19 companies. The sample was further reduced to 6 companies after eliminating firms that had no female directors for the period. **Table 2** summaries the selection process.

Table 2: Summary of sample selection

Number of companies listed on the Satrix Indi 25 as at 31 December	25
Less:	
Number of companies that are not consistently in top 25 for the period 2009–2011	(6)
Number of companies with no female directors	(13)
Final sample	**6**

Data analysis

The data was analysed using a Mann-Whittney test. The Mann Whittney test assesses whether or not there is a statistically significant difference between the salaries and bonuses of male and female executive directors. This analysis is appropriate whenever one wants to analyse the difference between the medians of two data sets.

The Mann-Whitney test was appropriate for this study as this study will determine whether between the two groups, gender and remuneration, are statistically different from each other. This test is used rather than the parametic equivalent as it is more suitable for small sample sizes where data are not necessarily distributed normally (Creswell, 2009). This was confirmed by a test for data skewness (untabulated). In addition, the data consists of two independent samples and is nominal which precluded the use of inferential analysis such as a regression analysis (Leedy and Ormrod, 2001). It should also be pointed out that this study is a preliminary one. The aim is to evaluate whether or not there are observed differences in the remuneration between male and female directors. Evaluating a causal relationship between gender and remuneration, including the relevance of any additional variables, is deferred for future research. Finally, in the interest of brevity, the research considers each research question separately. Evaluating correlations between base pay and any bonuses while controlling for gender was not appropriate as this is a preliminary study with a small sample size.

The test for statistical significance will be done at the 5% level, so that conclusions drawn are factual and not emotive, in line with comparable accounting and corporate governance research (Soni, Maroun and Padia,2015; Hill & Maroun, 2015).

RESULTS

The executive directors’ salaries per gender.

Table 3 illustrates that there was a significant difference at the 5% level between the salaries of male and female executive directors. The salaries of the male directors are statistically significantly higher (p = 0.0169 <= 0.05) than the female salaries of the female directors.

Table 3: Executive directors' salaries per gender

Var 1 = is the data for the female directors
Var 1 = 2 is the data for the male directors

The output of this calculation is as follows:
ranksum var2, by(var1) order

Mann-Whitney Test

Variance	OBS	Rank Sum	Expected
Var 1	15	433	637.5
Var 2	69	3137	2932.5
Combined	84	3570	3570
unadjusted variance			7331.25
adjusted for ties			-0.15
adjusted variance			7331.10

Ho: var2 (var1==1) = var2 (var1==2)
z = -2.388

Prob>|z| = 0.0169

P[var2(var1==1) > var2(var1==2)] = 0.302

The executive directors' and bonuses

Table 4 illustrates that there was no significant difference (p = 0.0169) at the 5% level between the bonuses paid to male and female executive directors.

Table 4

Var 1 = is the data for the female directors
Var 1 = 2 is the data for the male directors

The output of this calculation is as follows:
ranksum var2, by(var1) porder

Two-sample Wilcoxon rank-sum (Mann-Whitney) test

var1	obs	rank sum	expected
1	10	225.5	270
2	43	1205.5	1161
Combined	53	1431	1431

unadjusted variance	1935
adjusted for ties	-0.55
adjusted variance	1934.45

Ho: var2 (var1==1) = var2 (var1==2)
z = -1012

Prob>|z| = 0.3116

P[var2(var1==1) > var2(var1==2)] = 0.397

Analysis of data results

The results of this study confirm that there is a remuneration gap between male and female executive directors in South Africa. Female directors in South Africa, interestingly, seem to endure pay inequality only with their base salary and not their variable pay (bonuses).

The data results illustrate there is not enough female executive directors representing the large companies listed on the JSE. The sample was decreased by 13 companies (46%) due to no female executive directors present on the board for 3 consecutive years. The masculinity dimension of the Hofstede theory (2010) for South Africa shows that the distribution of roles between genders is a fundamental issue. Furthermore, the results illustrate that there is a significant pay gap of salaries between male and female executive directors in South Africa. This result is consistent with the power index dimension of the Hofstede theory (2010), which shows that South Africa is a society that has a high degree of inequality between people in the society. Female executive directors earn a significantly lower salary than their male counterparts.

CONCLUSION

This study examined whether or not there is significant pay gap between male and female executive directors in South Africa. This study is important because South Africa has transformed to acknowledge female contribution to the society but there is still under-representation of female executive directors. The high concentration of female executive directors in low-paying industries is mainly due to unequal distribution of roles between genders.

This study indicates that the gender pay gap in executive directors does exist. Although most literature would indicate that female executive directors not only fall within a lower base salary bracket compared to their male counterparts, but also earn less in bonuses. There is, however, a difference in terms of base pay. Hofstede theory was used to substantiate the data results. The two dimensions used in this study to explain executive directors' gender pay gap are Power index and Masculinity. This study concludes that gender pay gap is linked to how each society treats females, including females in top-level positions at large companies.

These findings have a number of important implications. Firstly, the results suggest that even well after the establishment of democracy in 1994, gender-based differences are noted in remuneration policies of large listed companies. In addition, despite the fact that South Africa has taken a leading role in promoting corporate governance (which includes fair business practises) (Solomon, 2010; Maroun et al, 2015), it is possible that a practise of gender based injustice in terms of remuneration practice remains relevant. Secondly, the results demonstrate the continuing relevance of Hofstede's cultural theories for explaining observed practises in a corporate context. With South Africa characterised as a masculine society, it comes as no surprise that male and female directors are remunerated differently.

Finally, the results suggest that companies favour the naturally aggressive and assertive approach typically followed by male directors. Stakeholders – including investors – value a results driven ethos which characterises the masculine dimension of Hofstede's cultural model. As a result, male directors receive higher levels of remuneration than their female counterparts. In light of a high power-distance score, the inherent inequality is not identified as a material concern which requires immediate attention. This raises a number of additional concerns. For example: if companies value an aggressive/results-focused approach to management, is the commitment to long-term business management espoused by King III and King IV genuine? If inequality between remuneration of male and female directors can be tolerated, what other forms of discrimination are permitted? Perhaps most importantly, is the fact that institutional investors – who are supposed to be holding companies accountable for their corporate governance practices – appear to be content with existing remuneration practices which are inherently unfair.

As explained in the introduction, this is a preliminary study. Additional research will be needed to support these initial conclusions. In particular, this study has concentrated on corporate reports issued from 2009-2011. This period predates the emergence of integrated reporting frameworks for driving business practise and reporting trends. As such, the study provides an important reference point for future researchers interested in understanding the implications of integrated reporting for gender inequality. More specifically, an integrated reporting philosophy will require companies to adopt a holistic approach to business which is mindful of the need for transparency, fairness and equity. This is in contrast to the ideology of a masculine mindset which, according to Hofstede, would promote maximisation of shareholder value and minimise the emphasis on inclusivity and fairness (Khlif *et al*., 2015). If this is the case, examining if male and female remuneration becomes consistent after the introduction of integrated reporting, will provide important evidence on the ability of integrated reporting (and associated governance principles) to promotes *real* changes in business policies and processes.

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AUD031 Analysis of Employee and Management Fraud in Tanzania

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ABSTRACT

The study analyses employee and management fraud in business organizations in Tanzania. It builds and extends from the fraud triangle theory by exploring the specific motivations, rationalizations and opportunities that are involved in the occurrences of fraud. To achieve these objectives, a survey was developed and administered to 114 participants who had witnessed, examined, or had some experience in dealing with fraud issues. The participants included fraud examiners, business managers and owners, victims, auditors, lawyers, and law enforcement professionals. The data collected were analysed using descriptive analysis, factor analysis and correlation analysis. The results revealed six motivation factors that incentivize employees and managers to engage in fraudulent behaviours, namely financial strains, social incentives and pressure, greed, operation problems, internal pressures and malevolent work environment. In addition fraudsters rationalized their behaviour through five significant neutralization techniques identified as social weighting, transferring of blame, denial of injury, attitude and prior fraud history. Lastly, victim organisations identified three main fraud opportunities; poor control environment, inadequate control activities, and circumstances that allowed collusive behaviour among the fraudsters. These observations can be of great importance in the war against fraud in the context of emerging economies. The findings further extend fraud triangle theory which suggests that fraud occurs when there is a perceived opportunity, motivation and rationalization of the same.

Keywords: Fraud, Fraud Triangle Theory, Employee fraud, and Management fraud

INTRODUCTION

Global fraud surveys such as those by Association of Certified Fraud Examiners (ACFE), PricewaterhouseCoopers, Deloitte, KPMG, or Ernst & Young, indicate a discouraging trend towards the fraud problem. These reports and a few other studies have attracted significant attention to business community all over the world (Kamarudin et al., 2012). This might be due to the widespread high profile corporate scandals such as Enron, WorldCom, Lehman Brothers, Bre-X, Parmalat, and Satyam Computer or the increasing frequencies and costs associated with fraud globally (Lang and McGowan, 2013; Grove and Basilico, 2011; Cohen et al., 2010; Rezaee and Davani, 2013; Kassem, 2014). Fraud losses to businesses are estimated to range from 3% to 9% of annual revenue, which translates to trillions of dollars globally (Button et al., 2012; Holtfreter, 2004; Aliabadi et al., 2011). One projection estimated the global losses to exceed over $3.5 trillion per annum (Chui and Pike, 2013). In this context, employees and management fraud studies in business organisations are worth undertaking in an attempt to combat fraud. The need is particularly huge in the context of developing countries because despite the pervasiveness of the fraud, it has received little attention in prior studies in these contexts (Kassem, 2014; Krambia-Kapardis and Zopiatis, 2010).

Fraud Triangle Theory suggests that fraud occurs only in the presence of perceived fraud opportunity, a motivation, notably financial pressure and the justification of the fraud act through rationalization processes (Cressey, 1950). A few studies extended this theory by modifying the elements of the triangle while others introduced more macro-issues for fraud occurrences, such as societal, cultural, industry, group and organisational influences (Ramamoorti et al., 2009; Zahra et al., 2007; Wolfe and Hermanson, 2004; Kranacher et al., 2011). Yet, other studies have questioned the role of some elements as inapplicable to some fraudsters, such as predators as opposed to most accidental fraudsters (Dorminey et al., 2012).

Few empirical studies have discussed fraud occurrences and deterrents in developing economies. However, almost all of these studies have paid a particular attention to isolated cases of corruption or mismanagement in the public sector leaving majority of other forms of fraud and other businesses unattended (Teh, 1997; Otusanya, 2012; Shehu, 2004). More importantly, empirical studies on fraud in Tanzania are hardly found despite the occurrences of scams, such as BAE radar fraud, EPA, Tegeta Escrow, DECI, TPA losses, and many others (Doyle, 2011; Hosken, 2009; Assad, 2011; Kapama, 2014; Kenyunko, 2013; World Bank, 2012; SFO, 2012; Business Times, 2010; Onyango, 2013 and Kassim, 2012).

An important conclusion from these studies and fraud theories reveal complexity of the factors for fraud occurrences and a mixed view regarding factors that are more relevant than others. This problem is amplified by little research on businesses in developing countries. The eventual problem for fraud fighting professionals is lack of focus in their efforts to combat fraud. In addition, it is yet to be known whether similar factors are applicable in the context of businesses in Tanzania. Therefore, this study examines specific rationalizations and motivations as well as the occasions that facilitate the occurrences of both employee and management fraud in business firms in Tanzania, thereby identifying the possible deterrents for the containment of fraud.

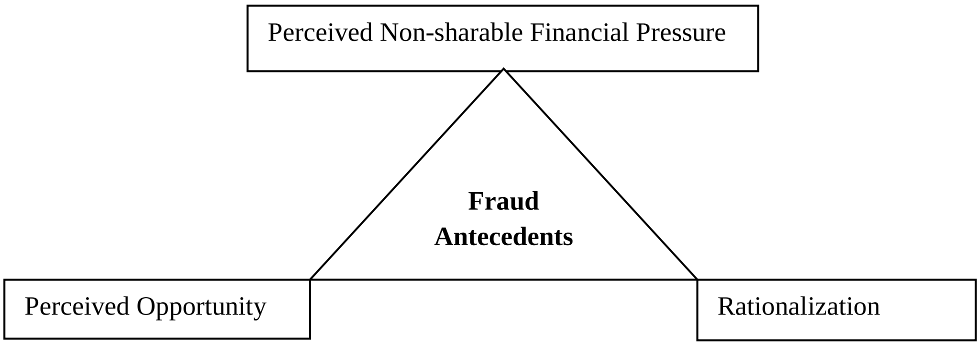
The rest of the paper is organised as follows: Theoretical framework informing the empirical analysis is provided in section 2. Section 3 provides brief details about the context of the study and the description of research methods.. The findings of the study are presented in section 4. Section 5 discusses the emerged findings in the light of theoretical framework developed earlier. Conclusion finalises the paper.

LITERATURE REVIEW

Theoretical Perspective

A myriad of theories have been put forward to explain the occurrence of both employee and management fraud in organisations. Amongst them, the fraud triangle is the foundation. However the paper also provides the critics, extensions and modifications to the theory and their contribution incorporated when necessary. This theory, pioneered by Cressey (1950) postulates that, "fraud occurs in the presence of perceived non-sharable financial problem, presence of perceived opportunity and rationalizations that constitute verbalisations to justify fraud action in the mind of the fraudster". According to this theory, all three elements must be present for the fraud to occur (Coleman, 1987; and Dellaportas, 2013). Schematically, the model is represented as follows:

Figure 2.1: The Fraud Triangle



Source: Author based on the sketch by Kassem and Higson (2012) and explanations by Cressey (1950).

In case of perceived non-sharable financial pressure, Cressey (1950) believed that fraudsters perceived to have financial obligations that are non-sharable to others. These obligations create unpleasant feelings to the offender who finally sought to seek private or secret solutions. The search for secret solutions to these problems eventually result into the violation of the financial trust, where an individual fraudulently use his/her position for private gains (Ventura and Daniel, 2010). However, it should be cautioned that the question of perception is more important in this regard because a significant financial pressure to one individual might not necessarily have the same perception to another. Recent studies while acknowledging the significance for the financial pressures as motivation for fraud occurrence have postulated other non-financial pressures as being equally important.

Albrecht et al. (2012) and Ramamoorti et al. (2009) for example, argue that financial pressures are derived from such factors as greed, extravagance, financial distress, work conditions that indicates little recognition for job performance, need for revenge, social status comparisons, passion for crime, demonstration for mastery of a situation (beating the system), feelings of job dissatisfaction and job insecurity, and insistence of meeting aggressive targets with disproportionate resources to accomplish them. Greedy individuals for example will strive to achieve their targets irrespective of the means they use. In addition, extravagant lifestyles are difficult to financially support without the backup of illicit means for extra income. On the other hand situations that create highly competitive and challenging work and industry environment, or culture that rewards unacceptably high risk are good motivations for both employee and management fraud (Zahra, et al., 2007). Yet, some people may also be financially motivated to commit fraud due to unbearable high bills, high personal debts, poor creditworthiness, or high personal financial losses. Such individuals may perpetrate fraud when they perceive that there is no legal means to make good of their problems, repayment of their maturing obligations, or recovery of their losses within the expected timeframe.

Similarly, management may be motivated to defraud due to poor liquidity, uncollectible receivables, and loss of key customers. Other motivations could include significant levels of obsolete inventory, declining market conditions or restrictive loan covenants that are being violated. Mhilu (2002) hypothesize similar motivations that enhance fraudulent behaviours among managers and employees. These include need to maintain public image beyond reality, illegitimate preservation of one’s job, and concealment of incompetence. Other motives include output linked incentive plans that belligerently insist on short-termism and pressure to deliver above expectations results, ambition for self-advancement and vested interest. An interesting expansion of the pressure side of the triangle was introduced by Kranacher et al. (2011) in the so called M.I.C.E model. The study show that fraud motivation factors fall within one of the four categories (abbreviated by the acronym *M.I.C.E*); desperate need for *Money*; *Ideology* that fraudster is achieving a greater good; *Coercion* from others; or an individual(s)’ strong need for power or entitlement, *Egoism*.

In addition to the perceived non-sharable financial need, the fraud triangle model further posits the second antecedent as perceived opportunity. Lister (2007) compared opportunities to *the fuel that keeps the fire going* and argued that even if a person has a motive (*source of fire*); he or she cannot perpetrate a fraud without getting an opportunity. Opportunity may involve weaknesses in the detection and prevention systems, weak ethical culture, excessive trust placed on some key executives, loopholes in regulations, and inadequate disciplinary sanctions that allow culprits to escape punishment (Akpanuko, 2012; Soltani, 2013; Mhilu, 2002; Albrecht, et al., 2012; Zahra, et al., 2005). To successfully commit and conceal fraud, fraudsters must be *capable* and *knowledgeable* to see those opportunities at least in their mind (Cressey, 1950). Albrecht et al. (2012) has identified situations that magnify fraud opportunities as; excessive trust on key employees; failure to discipline perpetrators; lack of technical knowledge by customers to ascertain the quality of performance or reasonableness of the payment; and victims’ ignorance, incapacity or incompetence. Kapama (2013, 2014) and Kenyunko (2013) for example provide a case of victim’s incompetence in the unlawful pyramid scheme, known as Development Entrepreneurship Community Initiative (DECI). Over 400 investors, who reportedly “planted” about TZS 92 billion over 3 year period, were defrauded. These victims were unaware of the basic fact that the business was operating without a licence, a serious matter under financial institutions regulations. In some other cases, investors were promised over 100% interest rate in just few months without knowing the mechanics of money generation! With this information gap, the victims tried even to solicit other investors to join the pyramid.

Rationalization aspect is the third element of the fraud triangle and the most difficult element to measure because rationalizations are cognitive (Cohen, et al., 2010; Skousen et al., 2009). The model suggests that fraudsters, at the time of committing fraud know their behaviour to be illegal, unacceptable or wrong but they merely "kid themselves" into thinking that it is not. As Cressey (1950, p.743) puts it:

> The trust violator often does not think of himself as playing that role, but instead thinks of himself as playing another role, such as that of a special kind of borrower or businessman"

Verbalizations such as; "I'm not receiving fair share of my efforts"; "the rich don't pay enough taxes"; "the government wastes money" (Mhilu, 2002, p.376); etc represents common rationalizations. Anand et al. (2005) describe rationalizations as mental strategies that allow employees to view their corrupt acts as justified. Anand et al. (2005) identified six common rationalization tactics; denial of responsibility, denial of injury, denial of victim, social weighting, appeal to higher loyalties, and metaphor of the ledger.

The fraud triangle theory provides useful explanations for many types of fraud (Kassem and Higson, 2012). However, the model is not short of criticisms. The theory has been criticized for failing to explain certain forms of fraud. Rae and Subramaniam (2008) for example, argue that the theory fails to explain why in some cases where fraud conditions exists no fraud occurs or in other cases where there is sound internal controls, employees circumvent controls and commit fraud. In many of these aspects, it appears that, the fraud triangle theory fails to accommodate other situational factors and the personal characteristics of the fraudsters (Cooper et al., 2013). Nevertheless, despite the weaknesses and criticisms put forward, the fraud triangle theory cannot be discredited; it remains the primary foundations of the fraud literatures. In addition, the theory has been widely used as practical tool for assisting fraud practitioners and auditors in assessment of and in response to fraud risks (ISA 240, 2012; Wolfe and Hermanson, 2004; Hogan et al., 2008; Soltani, 2013; Murphy et al., 2012). In addition, the model has been verified by succinct empirical findings over diverse research settings (Kassem and Higson, 2012; Skousen et al., 2009; Cohen et al., 2010). Therefore, the theory is still appropriate in the context of this study. Nevertheless, this paper also draws insights from the extensions and modifications to the fraud triangle model.

Empirical Literature Review

Dellaportas (2013) examined the factors that influenced accountants to commit fraud in Australia using unstructured group interviews to ten (10) inmate-accountants who were serving a custodial sentence for fraud-related offences. The findings suggest that six of the ten offenders were motivated by financial pressures; one offender was shown to be greedy. Two others had gambling addiction and the last disgruntled because of being overlooked by promotions and experiencing threats from executives. Fraud opportunities included excessive trust, poor segregation of duties and weak internal audit procedures. Offenders rationalized their decision by *denial of responsibility* (feelings of no other option), *denial of injury* (no one is hurt), and *denial of victims*.

Idolor (2010) sought to understand bank fraud in Nigeria in terms of the underlying causes, effects and remedies by administering a questionnaire to 100 bank practitioners in Nigeria. The study found that most of the bank fraud involved collusion with bank employees. Greed, infidelity and poverty turned out to be the most significant fraud motivators. Inadequate staffing, poor internal controls, inadequate training and poor working conditions, weak corporate governance were identified as *managerial and organizational factors* facilitating fraud. The study, however under represented the role of rationalizations in the occurrences of fraud. Similar to Idolor (2010) study, Peltier-Rivest and Lanoue (2012) also emphasised the role of collusion and the individual characteristics of the fraudster. They noted that employees' position and collusion were statistically significant factors for the magnitude of the fraud losses while gender, education level and tenure did not appear to play a convincing role in explaining fraud losses. One noted contribution of the study is to encourage organizations to reinforce their internal controls at the upper job levels and an urge for organisations to design and implement controls which mitigate the risk of collusion.

In another study Krambia-Kapardis (2002) investigated the fraud victimisation in Cyprus. The findings revealed that for each case of management fraud there were about four reported cases of employee fraud and that the average losses per case of management and employee frauds were $16,016 and $ 9,378 respectively. The study distinguished the factors for fraud occurrences into two classes: internal and external criminological factors. While internal criminological factors included management override, collusion with third parties, incompetence, and ignorance; external criminological factors were country's economy, stock exchange crash, loopholes in the legal system, ineffective police, banking system, personal vested interests, and perceptions that everyone steals from the government.

Rae and Subramaniam (2008) examined the interactive fraud triangle model to explain employee fraud using the constructs of Organizational Justice Perceptions (OJP) and quality of the internal controls. The study revealed that when perceptions of organizational justice are low, employees are more likely to rationalise committing fraud because doing so appears part of revenge against an "unjust" employer and the employee experiences less guilt in doing so.

COSO (2010) study comprehensively analysed the occurrences of management frauds through fraudulent financial reporting on U.S Public Companies. A sample of 1,759 Securities Exchange Commission (SEC) releases was used. The study revealed that SEC identified commonest motivations for management fraud as; need to meet internal or external earnings expectations, attempts to conceal the company's deteriorating financial condition or increasing the stock price, the need to bolster financial performance for pending equity or debt financing, or the desire to increase management compensation based on financial results. Contrary to the findings in previous studies (e.g. Dechow et al., (1996); Beasley (1996); Farber (2005) and Dunn (2004)), this study suggested insignificant statistical differences between the characteristics of board of directors or presence of audit committee as important among fraud firms and no-fraud firms. Using similar SEC releases although at different periods, Skousen et al. (2009) applied quantitative models to arrive at similar conclusions. While the findings of this latter study holds true for pressure and opportunity elements, it undermined the role of rationalization, perhaps because of difficulties to find better quantitative proxies for rationalization.

Contrary to the above studies, Cohen et al. (2010) showed rationalizations are equally important. They found that fraud rationalizations are a result of the attitude of a particular individual toward fraud and how that individual perceives the difficulty in committing it. The influence of external forces (subjective norms) in rationalization appeared remote. The study however made little efforts to clearly distinguish rationalizations from pressures/motivations as suggested by auditing/accounting pronouncements (SAS 99, 2002; ISA 240, 2012).

Grove and Basilico (2011) and Bhasin (2013) used case study to describe management fraud at Satyam Computer Company in India. Management and the Board of Directors of this company were implicated in various counts of fraud including insider dealing, fraudulent financial reporting and corporate looting. In 2008 for example the company reported $1 billion cash at the statement of financial position that was non-existent while operating profits and revenues were inflated by 964% and 28% respectively. Satyam management was dragged into fraud by temptations to consistently beat market and analyst expectations and impress stakeholders by unrealistic double digit growth. Low ethical culture coupled with over-emphasis on short-term performance facilitated creative accounting. Satyam had poor system of internal controls, complacent audit committee, and high levels of collusion by both the Board and Management. External auditors were also blamed for being either negligent or being involved (Bhasin, 2013, p. 38).

Despite evidence of worsening fraud situation globally fraud studies are still limited in Tanzania. Assad (2011) attempted to fill this academic vacuum by investigating circumstances that allowed the perpetration of the massive management fraud at the Central Bank of Tanzania. The fraud resulted into a loss of over TZS 133 billion (over US$ 110 million) in just one financial year 2005/2006. Top management of the bank including the Governor had been implicated in the External Payment Arrears (EPA) scam which involved theft, forgery, conspiracy, abuse of public trust and money laundering among other serious offenses. Most of the fraudulent payments were channelled through controversial companies which purported to have been assigned to collect the claims on behalf of the overseas suppliers. Some of these companies had non-existing or invalid business registrations. Kagoda Investments Limited is among the companies, which within six months of its incorporation received over US$ 30 million from Central Bank on 12 questionable deeds of assignments. The study argued convincingly that the gravity of these matters strongly suggests that there was an indication of high profile management collusion. Apart from collusion, the case further suggests existence of serious weaknesses in the internal controls particularly the oversight role of both the Board (led by the governor himself) and the Ministry of Finance. The case however does not portray the motivations behind these series of fraud. However, logical analysis suggests elements of greed, egoism, self interest, and coercion. The case noted, for example the bank’s Finance Director’s irresponsibility and lack of integrity as:

> “...his role in these transactions came at the tail end.......how could he be expected to start to question not only the Governor’s approval but also all the input of Bank officers prior to the Governor’s approval?” (Assad, 2011, p.9).

A general review of the above literature suggests that most studies hardly cover the contexts in developing countries. Tanzania for example is not included in all ACFE prior studies. Studies by Krambia-Kapardis (2002); Kassem (2014); and Assad (2011) attempted to close this gap. With the exception of Assad (2011), the other studies are not strictly in the context similar to that of Tanzania. However Assad’s (2011) study, despite being informative, involved only a case of single government entity. More studies are undoubtedly needed to provide more insights on fraud practices, especially in other businesses; a rationale for this study.

The review of the literatures above help us to derive the following hypotheses (1) motivation/incentives for employees and management fraud are likely to be financial pressures, ideology, coercion or egoism; (2) fraud are perpetrated in an environment that shows weaknesses in the internal controls (control environment, control activities, information and communication, risk assessment and monitoring), presence of accomplices (collusion) and an atmosphere that allows excessive trust and information asymmetry; (3) the commonest rationalizations for fraud are denial of responsibility, denial of injury, denial of victim, social weighting, metaphor of the ledger and appeal to higher loyalties.

RESEARCH METHODS

Research Design

The study has adopted exploratory and a descriptive design, attempting to examine the factors behind the occurrence of both employee and management fraud. This design was adopted since not much has been written on this topic, particularly in Tanzanian context.

Survey Strategy and Sampling

The study to a large extent used a secure online survey. The online survey was mailed to 166 known contacts and forty (40) other questionnaires were circulated in paper copies to the respondents who had problems in accessing the internet or who found it convenient to use paper questionnaires. Reminders were then sent to facilitate responses, especially from the e-survey respondents and telephone calls were made to other respondents. Some respondents initially expressed reservations concerning their participation in the study; however, the authors managed to assure them of their anonymity and confidentiality. The website assisted the researcher in sending the survey, administration of responses and extraction of the raw data. Respondents were purposively selected from large accountancy firms, law firms, law enforcement bodies, business managers, accountants and auditors who, at least, had encountered fraud in their undertakings. The unit of analysis for the purpose of this study was individual fraud cases that was investigated or witnessed or known by the respondent in a particular organisation.

The appropriate sample size in exploratory factor analysis is a question of debate among researchers (Zhang and Hong, 1999; Mundfrom, Shaw and Tian, 2005). There are two categories of general recommendations in terms of minimum sample size in factor analysis. One recommendation advocates for the absolute number of cases while the other advises subject-to-variable ratio (Zhao, 2009). As for the absolute sample sizes, the number recommended is between 100 and 1000 while on the ratio of sample size to variables the recommended ratios are between 3:1 to 20:1(Mundfrom, et al., 2005). This study composed of 114 cases of fraud that is considered reliable by both of these recommendations.

Data Collection, Cleaning and Analysis

Data was cleaned after extraction from the website for removing incomplete datasets, inaccuracies, and obvious omissions and outliers so as to obtain high quality data. All narrative responses were checked for spelling and grammar mistakes using Microsoft automatic spelling and grammar tools. Then data was careful coded using Statistical Package for the Social Sciences (SPSS). A total of 124 responses were received, that represented a response rate of 60.19% which is fairly high (Zhang and Hong, 1999; Mundfrom, et al., 2005). After screening a final sample had 114 cases. Ten cases were unusable. Nine of them had majority non-responses and one case had the same responses (zero standard deviation) across all questions making it less reliable.

The results from the reliability statistics using Cronbach's Alpha scale were 84.5% internally consistent which is well above the suggested rule of thumb of 0.70 to 0.95 (Tavakol and Dennick, 2011). On the other hand, validity was checked through carrying out by developing the questions through careful review of the literature of the studies conducted in other settings. In addition, the questions in the survey were pilot tested with colleagues, several of whom had experience in investigating fraud. Data was analysed quantitatively using SPSS software. Descriptive, cross-tabulations and inferential statistics were used in providing insights into data patterns. The main tool that was applicable in the analysis was the exploratory factor analysis coupled with correlation analyses.

PRESENTATION OF THE FINDINGS

Descriptive Analysis

The study involved a total of 114 respondents; accountants and auditors accounted for 30.4%, of which 67.7% were employed in professional accountancy firms. Additionally, 21.4% of the respondents were law enforcement officials, and lawyers. Tax officers and bank officers both contributed 10.7%. The remaining 37.5% of the respondents were business managers or owners (7.1%), academicians (4.5%), and others (25.9%). The respondents' knowledge on the identified fraud was found to be different where 28.6% of the respondents became aware of the fraud through their interaction with their clients in the professional accountancy firms, 12.5% were lawyers or expert witnesses and law enforcement agents, internal auditors (in-house examiners) or other witnesses accounted for about 20% each. In addition, 57% of all the respondents appeared to have over 6 years of professional experience in dealing with fraud, 75% had either bachelor degrees or above and 34% were holders of professional accountancy qualification (ACCAs or CPAs). These characteristics make the respondents' profile particularly relevant for the study, which in turn enhances reliability and validity of the findings.

Analysis of the Factors behind Fraud Occurrences

A test for suitability of the principal component analysis was conducted to verify whether the assumptions underlining the principal component analysis model were met and whether the sample was adequate. The model applicability was tested using the Bartlett's Test of Sphericity which has to be significant at 5% level of significance. On the other hand, sampling adequacy was measured by Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO). Acceptable minimum KMO was verified to be above 0.50 (Kaiser, 1974; Field, 2009). Principal component analysis was separately applied to each of the statements of motivations, opportunities and rationalizations to identifying the underlying factors for fraud occurrences. Principal component Analysis (PCA) was applied to extract the components/factors. This method was chosen because the aim was to identify the factors that maximize the amount of variance explained by the factors given that variables are highly correlated (Field, 2009; Suhr, n.d.). The method therefore reduces the number of observed variables to a smaller number of principal components which account for most of the variance of the observed variables. Eigenvalues greater than 0.5 was set to maximise the loadings. Direct Oblimin rotation was applied to allow for possibility correlations among the factors. A series of iteration were made to remove one variable at a time, eliminating variables that either do not load or cross-load at less than 0.50 on any one factor. Eigenvalue was comparably set high to minimize the number of iterations and increases the factor loadings. Many studies use a threshold range of 0.30 through 0.50 (Murphy, et al., 2012; Field, 2009). Final solution was analysed from the pattern and structure matrices as well as total variance table.

Motivation Factors

Table 4.1 summarizes the results for the Bartlett's Test and the Kaiser-Meyer-Olkin Measure (KMO) for the motivation variables. The KMO value of 0.764 suggests the sample was adequate for the principal component analysis. Bartlett's Test of Sphericity was significant at 5% level of significance implying that principal component analysis was suitable (IDRE, 2014).

Table 4.1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.764
Bartlett's Test of Sphericity	Approx. Chi-Square	1498.920
	Df	210
	Sig.	.000

Initially there were 25 statements or variables for explaining the motivations for fraud. After series of iterations as described above, 19 variables that had highest factor loadings on six factors were extracted. The final variables and their loadings are summarized in the Table 4.2.

Table 4.2: Motivation Variables and the Associated Factors

Factor	Variables (statements) loading onto the factor	Factor loading
Factor 1 α = .884	Stiff market competition and high analyst & external expectations	.909
	Attempts to conceal the company's deteriorating financial condition	.794
	The need to increase the stock price so as to increase management compensation based on financial results.	.741
	Need to meet internal earnings expectations	.695
Factor 2 α = .791	The suspect was instructed by a superior to do what s/he did.	.920
	The suspect was at risk for losing reputation by NOT doing what s/he did.	.734
	The suspect stood to gain in reputation by doing what s/he did.	.694
	The suspect wanted to please his/her superior(s) in this situation.	.622
Factor 3 α = .641	The suspect needed money.	.821
	The suspect was greedy.	.799
Factor 4 α = .800	Declines in customer demand	-.777
	Organizational high vulnerability to rapid changes (i.e., technology, obsolescence, or interest rates)	-.760
	Operating losses	-.701

	Organizational recurring negative cash flows from operations	-.699
Factor 5	The suspect stood to gain financially by doing what s/he did.	-.691
α = .325	The suspect felt a great deal of pressure to do what s/he did.	-.618
Factor 6	The suspect wanted revenge.	.770
α = .795	The suspect was angry toward his/her superior(s) or the organization.	.742
	The suspect was treated/claimed to have been treated unfairly within the organization.	.630

Factor Labelling:
Factor 1: The three statements on this factor appear to relate to the difficult environment the business organisation is in. The management on the other hand attempts to either survive competition or meet high expectation emanating from both internal and external sources, amidst the period of financial problems. This condition is likely to be described as financial strain arising from the business activities. Financial nature of the strain seems imperative in this factor because if the financial resources had been available, appropriate strategies to beat competition or embarking on alternative investments to meet the pressuring expectations would have been taken. Therefore, we label factor 1 as ***Business Financial Strain.*** This type of motive has also been identified in other literatures, such as those by AIC/PricewaterhouseCoopers (2003) and Smith (2010).

Factor 2*:* This relate to the motivations to please others or to appear respected before others in terms of the motivations. This factor is relatively easy to identify because prior literature has written a lot about this factor and different names such as "influence from others", and "pleasing others" have been used. The label *Social incentives and pressure* as used by Murphy et al. (2012) is preferred in this study.

Factor 3: This factor has only two statements, one indicating the need for money and another for extreme need for power, hyper-competitiveness, perfectionism, or excessive pride (Ramamoorti, et al., 2009). This factor as is labelled *Greed.*

Factor 4: This is similar to the factor 1 in the sense that the two factors are related to the business problems; however, the nature of problems in factor 4 seems not to be externally motivated and they appear operational. In light of this reasoning, factor 4 is labelled as *Operating Problems.*

Factor 5: This relate to the suspect's feeling of being internally motivated by personal pressures or pressures arising from the job situations. This factor is label as *Internal Pressures*. Nevertheless, it is important to note that this factor has low reliability (α = 0.325) as compared to other factors. This implies that the factor has relatively weak loadings and so does its weak explanatory power. The factor is retained because it is still above the 0.50, which is a minimum Eigenvalue and attempts to exclude the factor results into lower explanatory total variance by the model and multiple cross loadings.

Factor 6: This factor describes negative feelings an employee or a manager has over the organizations, which in turn creates anger and wishes for revenge. Feelings of being treated unfairly are also described. Consistent with Murphy et al. (2012) study, this factor is labelled as *Malevolent Work Environment.*

These factors explained 73.903% of the total variance, which indicate the model has high explanatory power for the motivation factors. Factor 1: *Business Financial strain* explains 35.887% of the variance, factor 2: *Social incentives and pressure* explains 12.294% and factor 3: *Greed* explains 8.282% of the variance. The remaining three factors, *Operating Problems; Internal Pressures;* and *Malevolent Work Environment;* are less significant (accounts for 5 - 6% of the remaining total variance).

Rationalization Factors

The KMO of 0.514 for the rationalization factors was quite low compared to that for motivation. However, it is still acceptable on the grounds of being above the 0.500. In addition, Bartlett's Test of Sphericity was significant implying that principal component analysis was still appropriate for the rationalization model.

Table 4.4: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.514
Bartlett's Test of Sphericity	Approx. Chi-Square	279.109
	Df	45
	Sig.	.000

Five rationalization factors were extracted from the SPSS output based on the 10 statements. The final variables (rationalization statements) and their loadings on the factors are summarized in the Table 5.5.

Table 5.5: Rationalization Variables and the Associated Factors

Factor	**Variables (statements) loading onto that factor**	**Factor loading**
Factor 1	The suspect claimed s/he didn't think s/he was hurting anyone.	.915
(α = .802)	The suspect said s/he didn't think his/her action was so bad, compared to other worse things.	.839
Factor 2	The suspect displayed a change in his/her attitude toward this particular behaviour.	.900
(α = .546)	The suspect used strange language to describe what s/he did, making it appear that it was not wrong.	.649
Factor 3	The suspect has a history of white-collar crime.	.879
(α = .411)	The suspect has been known to lie, steal, or act unethically.	.678
Factor 4	The suspect said s/he was helping the company in this situation.	-.909
(α = .647)	The suspect claimed s/he was instructed to do what s/he did.	-.788
Factor 5	The suspect said it was temporary; the fraud would be fixed (i.e. paid back)	.877
(α = .618)	The suspect said that his/her behaviour might be wrong in	.774

	general, but it wasn't in this particular situation.	

Factor Labelling

Factor 1: This factor represents rationalizations that take the form of selective social comparison. Fraudsters compared their actions to others, worse than themselves: "Others are worse than we are"(Anand et al., 2005, p. 11). Similarly, we label this factor a *Social weighting.*

Factor 2: The second factor seems to relate to the poor attitude of the fraudster. This means that the fraudster is likely to embark on this kind of behaviour whenever other factors, such as an opportunity to fraud arise. This factor is labelled *Attitude*.

Factor 3: This factor is obvious and reflects the prior fraud experiences of the fraudster. The explanations like "the suspect has a history of white-collar crime" or "the suspect has been known to lie, steal, or act unethically" all reflect the known fraudulent *History* of the fraudster.

Factor 4: This factor is labelled *Transferring of blame* because the suspect claims to be instructed to do what s/he did or claims to act in the interest of the company.

Factor 5: The statements that actors believe their action as temporary and wasn't actually wrong or "it would be fixed" suggest that these individuals perceived their actions have no harm and hence, the actions are not really corrupt (Anand et al., 2005, p. 12). We label this factor a *Denial of Injury.*

The rationalization factors explained 77.975% of the total variance. This suggests high explanatory power of the extracted rationalization statements to the occurrences of employee and management fraud. Unlike motivation factors, all five rationalizations factors are significant in explaining the total variance. Factor 1: *Social weighting* explains 27.125% of the variance, factor 2: *Attitude* explains 15.474% and factor 3: *History of the fraudster* explains 12.674% of the variance; Factor 4: *Transferring of blame* accounts for 11.903% of the variance and the last Factor *5: Denial of Injury* explains 10.798% of the variance.

Opportunity Factors

The KMO for this analysis was sufficiently high (0.773). The model was appropriate since Bartlett's Test of Sphericity was significant (at 5% level). Three opportunity factors were extracted from the SPSS output based on the 10 statements. The final variables (opportunity statements) and their loadings on the factors are summarized in the Table 4.7.

Table 4.7: Opportunity Variables and the Associated Factors & Loadings.

Factor	Variables (statements) loading onto that factor	Factor loading
Factor 1 (α = .782)	Lack of risk assessment procedures	.848
	Complex organizational structure	.800
	No evidence of undertaking business performance reviews	.685
	Ineffective hiring procedures	.619
	Low or no commitment of ethics and integrity of top management	.580

Factor 2 (α = .862)	Inadequate documents and records	-.897
	No proper authorization and approval of transactions and activities	-.851
	Inadequate segregation of duties	-.835
Factor 3 (α = .510)	Collusion	.785
	Significant, unusual, or highly complex transactions	.696

Factor Labelling

Factor 1: The variables in the factor reflect the soft component of the Internal Controls Framework suggested by COSO's report (COSO, 2009). The elements stand for the tone at the top. Consistent with COSO report this factor is labelled *Poor Control Environment.*

Factor 2: This factor seems to operate at the detailed activities that ensure the transactions and activities are in line with the management directives. Consistent to the framework above, we label this factor as *Inadequate Control Activities.*

Factor 3: This factor has only two statements that represent the presence of accomplices in the perpetration of fraud and the fact that generally collusive fraud are complex or hidden in complex transactions. This factor is labelled as *Collusion.*

Further analysis indicates that the three rationalization factors accounts for about 67% of total variance explained by the opportunity factors. The first factor: *Poor Control Environment* accounts for over a half of all this variance (55%), followed by inadequacies in the control activities and collusion which contribute 18.510% and 11.832% respectively.

Correlation among the Factors

Appendix 1 shows the results of the degree of correlation using Spearman Correlation Coefficients among the identified 14 factors for motivations, opportunity and rationalizations. It is evident that an opportunity factor named Poor Control Environment, "tone at the top-weakness" is strongly correlated to most (8) of the other factors. It is strongly and positively correlated to Inadequate Internal Controls, Social Weighting, Attitude, Denial of Injury, Business Financial Strain and Social Incentives and Pressure. On the other hand, poor control environment is strongly and negatively correlated to Transferring of blame and internal Operating Problems. It is also pertinent to note from Appendix 1 that unlike other opportunity factors, collusion among fraudsters is not correlated with any of motivation factors. Another interesting observation is that all of the identified opportunity factors have significant correlations with the rationalizations factors than with the motivations factors. Nevertheless, four out the six motivation factors (with the exception of greed and internal pressures) displayed significant association with rationalization factors. It is also important to note that the prior fraudster's history seems to be closely correlated with only two factors, namely malevolent work environment and greed. Greed was not found to correlate with any of the other factors except with the prior fraud history of the offender while Internal Pressures never showed association with any of the other factors. It is also interesting to note that *Malevolent Work Environment* did not display any association with opportunity factors but it is very closely and significantly correlated with rationalizations and other motivation factors.

DISCUSSION AND ANALYSIS

The findings of this study are largely in support of the fraud triangle theory suggested by Cressey (1950) and empirically tested by some studies such as those by Coleman (1987), Dellaportas (2013), Idolor (2010) and Albrecht et al. (2012). In particular, this study established that elements of motivation, opportunity and rationalization must be present for the fraud to occur. This study however has shown that contrary to the original fraud triangle, motivations other than financial motivations are also important for employee and management fraud. Researchers such as Albrecht et al. (2012), Ramamoorti, et al., (2009), Mhilu (2002) and COSO (2010) discussed other non-financial motivators but not in the disaggregated level or context suggested by the current study. The findings of this study found the following six fraud motivators: First, attempt to conceal poor financial standing of the business when there is pressing external expectations (*Business Financial Strain*); second, coercion from superiors, need to protect ones' reputation, or need to please others (*Social Incentives and Pressure*); third, intense desire for wealth or power (*Greed*); fourth, inability of the company to cope with fast changing industry environment, operating losses and cash flow problems (*Operating Problems*); fifth, other *Internal Pressures*; and Lastly, work environment that treats employees and managers unfairly that in turn create anger and wish for revenge against the organisation (*Malevolent Work Environment*). These six motivation factors accounts for about 74% of all the variance in the motivation factors.

Unlike other studies, such as those by Dellaportas (2013), Smith (2010) and Idolor (2010) that emphasized the role of greed as significant fraud motivator, the current study has shown comparatively different results, that, it is pressure to meet market and other external expectations (Business Financial Strain) and social incentives and pressure that are more important for occurrences of fraud rather than greed. These two motivators respectively explain 49% and 17% of the total variance explained and greed accounts for only 11%. Nevertheless, an interesting correlation results drawn from *Appendix 1* suggests that greed has significant positive correlation to one and only one other factor; the history of the fraudster. These results point to the argument that greed seems to be a major behavioural problem with repeat offenders unlike many first time offenders. This seems convincing because once a first time fraudster satisfies his/her need without being caught he/she will graduate to more large scale fraud. Lastly, work environment that treats its employees unfairly, at least to the perception of the fraudsters, appears to be good targets for fraud because these individuals would easily rationalize their fraud as a means for revenge.

In regard to the fraud opportunities, the study is in support of most findings from prior studies, such as those by Akpanuko (2012), Soltani (2013), Mhilu (2002), Albrecht, et al. (2012), Zahra, et al. (2005), Kapama (2013, 2014) and Kenyunko (2013). The study results indicate three paramount fraud opportunities. The first and most significant is the business atmosphere that demonstrates poor management's commitment to ethics and integrity principles, good role models, inappropriate hiring procedures or unclear organizational structure and style; in this study this factor was labelled *Poor Control Environment*. This factor appears to influence many other factors, including how employees rationalises or are motivated to fraudulent behaviours. These findings are intuitive because they suggest that whenever the control environment is poor, the whole organization will demonstrate low or no commitment towards internal controls. Since leaders show no respect and commitment to the ethical values it is not expected for the employees and others to do otherwise. Consequently, employees and managers can violate and circumvent controls, behave illegally, and find it easy to rationalize fraud because "everyone is doing it" or "nobody seems to care”. The second opportunity factor relates to *Inadequacies in Control Activities,* such as inadequate documents and records, improper authorization and approval of transactions or inadequate segregation of duties. Lastly, passivity to *collusion* defined good opportunity for fraud. The three opportunity factors explain 67% of all the variance in the opportunity factors.

Contrary to studies by Skousen, et al. (2009) and Dorminey et al. (2012), the role of rationalization was shown by this study to be equally important in fraud occurrences. It was noted that fraudsters legitimized their illegality through several neutralization or rationalization techniques, five of which were more significant. First, some fraudsters undertook selective social comparison between their actions to those they believe were worse than theirs (*Social Weighting*). Second, there were those who looked for easy scapegoats to transfer the blame to their wrongdoings. These individuals were more likely to blame the organisation, superiors, or claim to follow orders. Their neutralization technique is referred to as *Transferring of Blame*. Other fraudsters convinced themselves that no one was really harmed by their actions; hence, the actions were not really corrupt (*denial of injury*). And lastly “crooked individuals” did not even need the above techniques, their *attitude* and *prior fraud history* was enough to rationalize their behaviours. The cumulative explanatory variance of these five factors was 78%.

In general, the study suggests for a modified fraud triangle which should extend beyond the original angles suggested by Cressey (1950) to include other situational factors and personal characteristics of the fraudsters; most importantly, considerations of interrelationships among the factors.

CONCLUSION

In line with the study objectives, the findings identify a number of factors (in terms of motivation, rationalization and opportunities) necessary for the occurrence of fraud in the Tanzanian context. In this regard, the study is one of the few attempts that have been made to date to examine fraud in business organisations in Tanzania. It is anticipated that the study would provide new insights to the general body of knowledge related to fraud examinations, prevention, or detection. The findings of the study might be of practical use to business organisations, fraud fighting professionals and institutions by creating an awareness intended to answer questions such as what is fraud, why it occurs, how they occur, who does it and when. This awareness is expected to stimulate the comprehension of the magnitude of the risks related to fraud so that they can take proper measure to limit the frequency and amount of losses.

Certain limitations may be acknowledged with respect to the study’s findings or its methods. The greatest potential limitation of the study is perhaps the use of fraud fighting professionals rather than known fraudsters or incarcerated individuals. While we cannot rule out the fact that responses of actual fraudsters may be different from those of fraud examiners, prior literature suggests that differences in opinion or responses are insignificant. We also confirmed the understanding of the respondent to the subject matter of the study and determine whether they have witnessed/investigated any of the fraud. While the current study involved different types of organisations, the general motivations, rationalizations and opportunity for fraud, yet, in-depth disaggregated analysis will be more informative because of the underlying differences in these organisations. Therefore, the study recommends that future research should examine occupational fraud in each of the specialised type of businesses or specialised sectors. Moreover, it will be interesting for future studies to interview incarcerated individuals or known fraudsters to examine their actual motivations and rationalizations including how they perpetrated fraud, instead of examining fraud examiners and witnesses. This is because fraudsters are more likely to accurately understand the circumstances of the fraud occurrences, actual losses involved and who participated among many other things.

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Appendix 1

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Poor Control Environment	1.000													
2. Inadequate Internal Controls	.255**	1.000												
3. Collusion	.134	.235*	1.000											
4. Social Weighting	.217*	.320**	.231*	1.000										
5. Attitude	.210*	.117	.220*	.018	1.000									
6. History of the fraudster	.126	.235*	-.095	-.058	.139	1.000								
7. Transferring of blame	-.272**	-.148	-.208*	-.191*	-.057	-.108	1.000							
8. Denial of Injury	.220*	-.242**	.271**	.067	.205*	.071	-.192*	1.000						
9. Business Financial Strain	.287**	.003	-.008	.340**	.289**	.168	-.335**	.382**	1.000					
10. Social Incentives and Pressure	.367**	.304**	.128	.189*	.049	.156	-.604**	.151	.249**	1.000				
11. Greed	.149	.139	.034	-.156	.059	.194*	.161	-.090	-.082	-.033	1.000			
12. Operating Problems	-.269**	-.101	-.041	-.405**	-.083	-.020	.267**	-.146	-.454**	-.255**	.158	1.000		
13. Internal Pressures	-.147	-.019	.113	-.095	-.169	.050	-.018	-.110	-.114	-.150	-.034	.058	1.000	
14. Malevolent Work Environment	.082	-.024	-.028	.150	.122	.190*	-.314**	.221*	.342**	.354**	-.107	-.243**	-.094	1.000

**. $p < .01$ (2-tailed).

*. $p < .05$ (2-tailed).

Key:

1-3: Opportunity factors
4-8: Rationalization factors and
9-14: Motivation factors

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EDU003 The teaching-research gestalt in accounting: A cluster analytic approach

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ABSTRACT:

This paper considers accounting academics' views of the mutuality of accounting research and education. These views are captured by administering a survey instrument that measures eleven dimensions of the relationship between teaching and research in the accounting discipline. This model was developed from the extant education literature considering those factors that encourage or militate against the integration of accounting research and education (the teaching-research gestalt). These factors relate to issues relating to students, researchers, the curriculum and extrinsic rewards available. Cluster analysis was performed to identify distinct subgroups of academics with similar teaching-research relations profiles. Three distinct clusters were identified. One cluster labelled 'teaching-research incongruity' sees teaching and research as mutually exclusive activities. In contrast 'teaching-research connexion' sees teaching and research as mutually reinforcing and compatible. A third cluster, allied to the world of teaching-research incongruity, emphasises the lack of extrinsic rewards for integrating teaching and research. This third cluster we label 'Extrinsic-reward focus'. The clusters are described in terms of their demographics. There are significant barriers to integrating accounting research into education; these include the role of professional education and resistance from many accounting academics in universities.

Keywords: teaching-research nexus, teaching-research gestalt, accounting faculty

1. Introduction

The relationship in higher education of academic research to teaching has been a vigorous area of activity for researchers in the field of education. This connexion is often termed the 'teaching-research nexus' implying a normative belief that there should be a symbiotic relationship between the two entities (e.g. Burke and Rau, 2010; Colbeck, 1998; Jenkins, 2004; Jenkins and Healey, 2005; Zamorski, 2002; Zimbardi and Myatt, 2014). However, this view is contested by some scholars who see these academic activities as competing and without complement (e.g. Brown and McCartney, 2006; Coate, Barnett and Williams 2001; Hattie and Marsh, 1996). Whilst the relationship of academic research to professional practice in accounting has been widely researched and debated (e.g. Baxter, 1988; Moehrle, Anderson, Ayres, Bolt-Lee, Debreceny et al., 2009; Scapens, 2008; Singleton-Green, 2010; Unerman and O'Dwyer, 2010), educational considerations have taken a back seat. Parker, Guthrie and Linacre (2010, p.7) propose:

> Any discussion about the impact of research on professional practice must include education in the equation. A research/practice/teaching triangle has induced a range of research around these connections.

To attempt to address the teaching-research nexus lacuna in accounting, this paper reports the findings of a bespoke survey, measuring eleven factors that describe relations between accounting research and accounting education; the survey was administered to accounting academics in the United Kingdom (UK) in 2010. Using a cluster analytic method, we identify three clusters of accounting academics with discrete profiles based on their views of the relationship between teaching and research, along with the demographic characteristics of these clusters.

The aim of this study is to consider accounting academics' views of the relationship between teaching and research. This is achieved by an inventory constructed for the purposes of this study. The development and composition of the questionnaire is described in detail in section 2.3. Briefly, the survey measures eleven subscales derived from the prior literature considering the interaction of teaching and research within accounting. These eleven subscales measure two higher-order factors relating to positive and negative aspects of the relationship accordingly. The survey has been extensively evaluated as a measurement instrument, with its development and psychometric performance considered elsewhere (Duff & Marriott, 2012, 2016; Hancock, Marriott & Duff, 2015). The investigation also examines the association between these measures and a number of key demographic variables including: gender; age group; country; seniority; entry into a research selectivity exercise; experience; and proportion of time spent on research and teaching.

The presumed link or connection between teaching and research in accounting that may, or may not, be symbiotic and desirable has not been evidenced by any substantial quantitative study. The aim of this paper is report the findings of a survey addressing what we term the 'teaching-research gestalt' in accounting. The survey articulates a model that measures eleven factors; these factors either positively contribute to teaching-research relations, or they have a detrimental effect on each other. As much research that refers to the 'teaching-research nexus' has the implication that the two are mutually self-reinforcing (Horta, Dautel and Veloso, 2012) we adopt the term 'teaching-research gestalt' (Duff & Marriott, 2016) that recognises there are two opposing sets of factors that either encourage or deter the integration of these two fundamental academic activities.

The identification of a gestalt recognises that once both positive and negative interpretations are seen, the correspondence of instruction to enquiry cannot be seen as a universal good or bad. Rather, it becomes a dichotomy where the positive aspects of integrating teaching and research require judicious management. Some of the data considered within this paper have been published in a research monograph aimed at accounting practitioners (Duff & Marriott, 2012). Nevertheless, our paper by design provides a more detailed and empirically rigorous analytic method and interpretation than was suited to a research report aimed at practising accountants[19].

The contribution of this paper lies in four areas. First, by the application of a novel research instrument to assess and report accounting academics' views on the relationship between teaching and research. Second, by the use of a cluster analytic statistical method to consider whether there are distinct subgroups of accounting academics with similar teaching and research relations views. These subgroups also highlight the interrelationships between the eleven teaching-research gestalt factors. Cluster analysis examines variation within the sample to consider differing attitudes to the integration or separation of teaching and research. It is an essentially interpretative technique to reveal similarity and diversity within a sample by establishing some common groupings. Third, to identify whether significant differences exist between the clusters in terms of their demographic characteristics and entry into a research selectivity exercise. Fourth, to provide empirical evidence to support or counter arguments made in the critical accounting literature that voices concern with the overly technical nature of accounting education and the consequences for the profession.

Section 2 (S2) of the paper describes the literature considering teaching-research connectivity in general and more specifically in the accounting discipline, which is the contextual setting for the investigation. The research questions are outlined in S3. The methods of data collection and analysis are described in S4 which also includes a description of the research instrumentation. The results are presented in S5. S6 presents a discussion of the findings and concludes the paper.

2. Context and literature review

2.1 Teachers and researchers of university accounting in the UK

The accounting academy in the UK is significant, with accounting taught at most universities. Prior research demonstrates the consistent growth of the teaching of accounting in UK higher education, with a concomitant rise in the numbers of accounting academics (Brown, Jones and Steele, 2007). This trend is mirrored by the consistent growth in the numbers of professionally-qualified accountants in the UK (Financial

[19] For example, Duff & Marriott (2012) restricts analysis to individual items and scores on hypothesized factors derived from extant literature.

Reporting Council (FRC), 2015). The accounting discipline has also grown to become a mature and mainstream area of research in universities (Parker and Guthrie, 2014). The nature of university accounting education in the UK is determined in part by the institution in which staff work, or correspondingly, a student studies and the requirements of accounting professional bodies that grant varying degrees of exemptions from their professional examinations. For example, a Bachelor of Accountancy honours degree in Scotland requires four years of study, whilst in England, Wales and Northern Ireland it takes just three years. In practice this means the first three years of study in Scotland are similar to that of the other three nations, while the final year is typically more conceptual in nature and less dependent on fulfilling the requirements of professional accreditation [20] [21].

Prior to 1992, higher education in the UK was delivered by universities with degree-granting powers and by polytechnics, who relied on a national council to grant academic awards. This binary divide between universities and the then polytechnics was abolished in 1992 but tacitly still persists. In particular, former polytechnics still have a strong links with the Association of Chartered Certified Accountants (ACCA), the Chartered Institute of Management Accountants (CIMA) and the Chartered Institute of Public Finance and accountancy (CIPFA), in some instances teaching and internally assessing their programmes[22]. For example, Oxford Brookes University, the former Oxford Polytechnic, runs an undergraduate degree conversion programme for students who have successfully completed ACCA's examinations. Furthermore, the past 25 years have seen UK universities, and particularly business schools, developing a fascination for accreditation from various business education legitimacy agents such as the Association of MBAs (AMBA), European Foundation for Management Development (EQUIS) and the Association for the Advancement of Collegiate Schools of Business (AACSB). These have developed alongside of university-wide status groups such as the Russell Group and Million+. There are also reputational devices such as university and business school league tables, created by highly-regarded publishers such as the Financial Times, Guardian and Times Higher Educational Supplement (THES) where research productivity and quality is a key variable. In business education, the quest for legitimacy, status and reputation has never been stronger and research is a key strategy in seeking, maintaining and repairing these institutional constructs.

[20] School-leavers in Scotland join universities typically at age 17 as opposed to the other three nations of the UK where the entrance age is 18. That is, proportionately more education takes place in universities than schools in Scotland relative to the rest of the UK.

[21] For many years, the final honours year in Scotland was the preserve of the most academically talented with the majority graduating with an ordinary degree after the third year. A similar system persists in New Zealand today. However, in Scotland today it has become the norm for the majority to complete the four-year honours programme as a consequence of employer demand and universities desire to maximise student fee income.

[22] Interestingly, the historic chartered institutes Institute of Chartered Accountants in England and Wales (ICAEW) and Institute of Chartered Accountants of Scotland (ICAS) have offered fewer exemptions to accountancy graduates and teach their programmes either via private sector training companies or in-house . However in the last decade ICAEW and ICAS have developed programmes in collaboration with specific firms at certain universities, largely prestigious universities and business schools, for example, PwC/ICAEW's degree at Newcastle University of E&Y/ICAS' programme at Lancaster University.

Similarly, the past three decades have seen critical accountants question the role of accounting educators, particularly in their development of technical skills in an acontextual manner (Chabrak and Craig, 2013, p.102). For example, Amernic and Craig (2004 p.368) urge accounting educators 'not to operate as unquestioning cheerleaders of any imposed ideology', such as market-based capitalism. In a similar fashion, critical educators stress placing student enquiry over the passive acquisition of theory (Grey, 2002). The essence of critical accounting's rebellion against traditional accounting pedagogy has been to focus on the pivotal role of student experience and questioning, over narrow technical approaches to the discipline.

Concurrent to the critical accounting project, accounting scholars have identified the new stresses on accounting departments, and business schools more generally, created by new public management keen to make public services more efficient, seek commercial solutions and valorise the private sector provision. Parker (2010 p.19) argues that "business schools are, by and large, a low-cost, (heavily) casually staffed, revenue-generating cash cow" asking the pointed question "can accounting education survive a high-volume low-cost, lean, casualised higher education delivery model?". Hopper (2013 p.134) goes further in suggesting:

> First, the differentiation between teaching only and research academics needs to be redressed. Research funded critical researchers must help colleagues elsewhere to develop research skills and knowledge if they want their work diffused beyond small research circles. Second, such researchers must ensure that their courses are exemplars of critical pedagogy and research, rather than remaining in the comfort zone of accepted practice: teaching and research should be inextricably connected and it is hypocritical not to do so. Third, an unfortunate by-product of research evaluation has been the elevation of publications in so-called leading journals at the expense over innovative and research informed teaching material such as books, case studies, and public dissemination.

The paucity of the production of accounting PhDs in the United States (US) and the consequence for the survival of the US accounting academy is well-documented (e.g. Plumlee, Kalchelmeier, Madeo, Pratt, and Krull, 2006; Ruff, Thibodeau and Bedard, 2009). The dearth of PhD holders in subjects like accounting creates a recruitment problem for university departments of accounting in the UK forcing them to hire non-doctorally qualified staff (Hopper, 2013) and taking UK university accounting departments back to the 1960s, when accounting was taught in technical colleges or small, private sector providers. Business schools worldwide are said to be deficient in graduating higher research degree students (Ryan, 2010; Neumann and Guthrie, 2002, 2004). Consequently, accounting academics who can both teach and research are becoming something of a *rara avis* internationally. At the same time, there is growing private sector provision in accounting, for example, undertaking training for the students of professional accounting bodies in the UK and providing undergraduate education, awarded by a UK university that validates and oversees their programme.

For the past 130 years, the history of accounting education highlights a legitimacy struggle where accountancy has vied to be recognised as a profession alongside other occupational groups such as law or medicine with arguably loftier claims. In particular, van Whye (2007a p.176) documents that by the 1950s 'a truly serious rift between practitioners and academicians had emerged' with the development of new management accounting sciences. At the same time tensions between research, teaching and professional practice became evident. Furthermore, research interests diverged widely from that of the profession and by the 1960s, doctoral qualification and the publication of empirical research became the route for promotion (Fess, 1968). Mautz (1963 p,319 cited in van Wyhe, 2007a p.176) in an address to the AAA in 1962 referred to 'a compatibility of research and education just as there is an incompatibility of professional practice and research'. However, the development of management sciences and accounting, promoted in part leading accountants such as Bedford (1961) came at the expense of accounting education, with publication in leading journals now seen as more significant than the writing of textbooks. To summarise, much as the relationship between professional practice and research has been long-debated, the (in)compatibility of accounting research and education has a similarly long, although less profiled, history.

The tension between professional qualification and academic accounting research continues to resonate in the profession's recent Pathways Commission (2015) in the United States (US) led by the AICPA pushing for more professionally-qualified individuals in the accounting classroom. Although Pathways Commission (2015) lays out a blueprint for accounting education in the future, identifying some 'signature pedagogies' alongside 'consensus body of knowledge; and 'technologies', it avoids the issue of relating research to teaching and vice-versa.

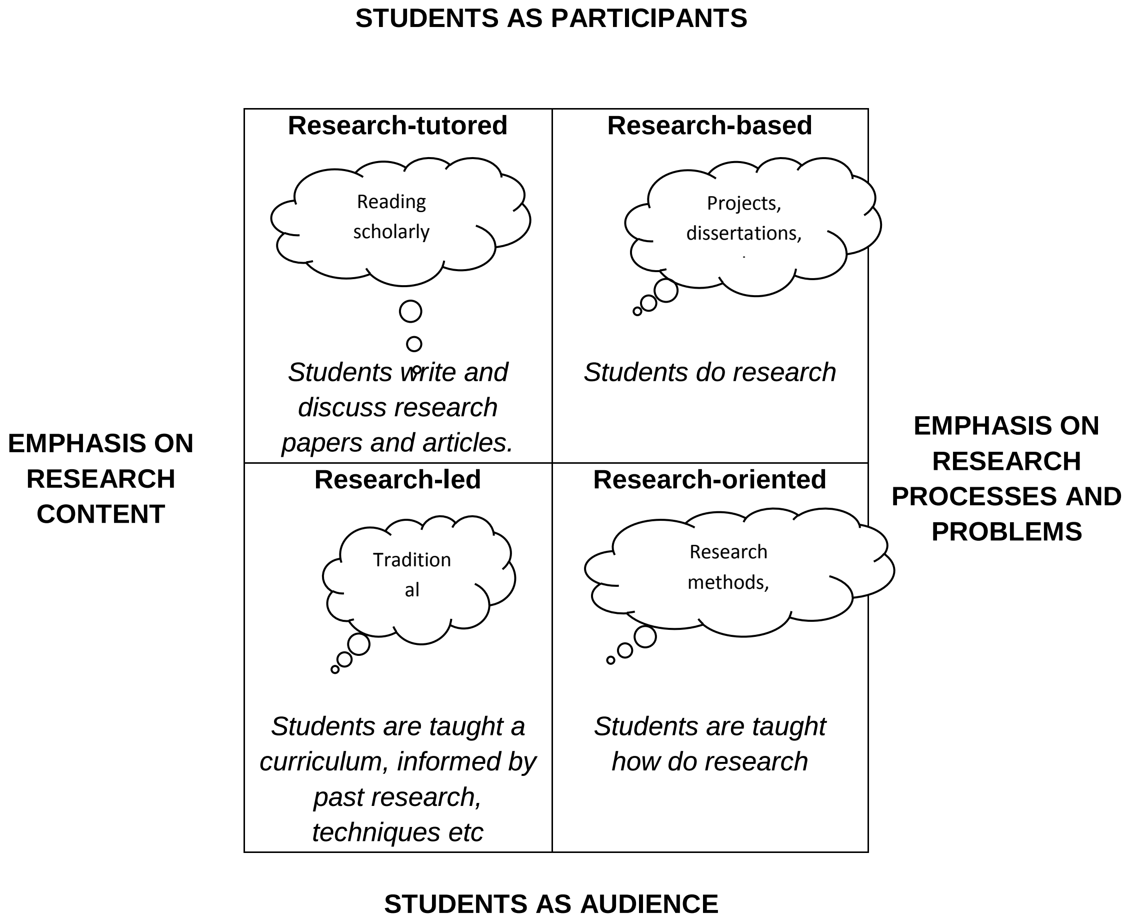
Internationally, accreditation from bodies such as the Association to Advance Collegiate Schools of Business (AACSB) is a source of pressure to hire academics with a PhD. In the US, a PhD has long been a prerequisite to being hired as an accounting academic. In the UK, research has gradually taken centre stage over the past few decades, more recently as a consequence of the introduction of periodic research selectivity exercises (Duff and Monk, 2006; Paisey and Paisey, 2017). These effectively rank departments; individual academics are either included or excluded from the exercise by their institution. Inclusion for an individual academic frequently becomes an important career objective in achieving promotion, whereas exclusion can lead to transfer to a teaching-only contract or redundancy or early retirement. New Zealand has established comparable selectivity exercises and has been followed by Australia. Presumably these have similar risks and rewards for academics.

Much as relations between research and professional practice have hitherto been the subject of significant commentary, we argue that the connection, or lack of it, between teaching and research are now critical in accounting. If research is unnecessary or provides no comparative advantage in the delivery of high-quality accounting education, then arguably accounting might as well be taught in low-cost, high-volume private sector environments, with professionally, rather than doctoral-qualified staff. As teaching revenue, rather than research funding, fuels academic accounting departments, the lack of an axiomatic connexion between education and research may lead to the decline of accounting research itself, with departments focusing on teaching and low-cost delivery. The linkages between accounting research and professional practice may then become redundant because of the decline of the former.

2.2 The teaching-research nexus

Significantly, in the broader education literature the word research used in relation to the teaching-research nexus has been taken to meaning of ‘student enquiry’ as much as of ‘staff research’. The position is summarised in Figure 1, adapted from Healey (2005). Research can be interpreted as lying along two axes. The vertical axis describes a continuum, where at one pole students are an audience, or mere passive recipients of research knowledge, and at the other end are active participants, or creators of knowledge. The horizontal axis addresses a continuum from an emphasis on research content to a focus on research processes and problems. In turn, these two axes create four quadrants labelled: research-led; research-tutored; research-oriented; and research-based learning.

Figure 1: Implementing the teaching-research nexus



(Adapted from Healey (2005, p.70))

In the research-led quadrant students are an audience and the emphasis is on banking knowledge or being a receptacle for research content (Freire, 2000; Postman and Weingartner, 1969; Fuhrmann and Grasha, 1998). The curriculum is then largely determined by extant practice, informed by past research and methods, techniques and regulation. Textbooks, rather than more modern writings or nascent thinking, frequently support instruction.

The research-tutored quadrant differs from research-led in that students work with contemporary research papers and findings, rather than the more established orthodox thinking found within popular accounting texts. Examples might include the undertaking of literature review, the development of hypotheses, or writing a press release to communicate some new research findings. The emphasis remains on content rather than the process of undertaking research, but entails working with the content in order to know it. The research-oriented quadrant focuses on the techniques of doing research. Exemplars would include research methods courses, understanding and applying statistical methods and discussing the philosophy of research or how to undertake a consulting project.

Finally, the research-based learning quadrant involves students addressing, and possibly solving, problems or attempting to find answers to research questions. At one level it might involve students replicating their tutor's research findings, or proposing solutions to a contemporary problem based on their researching. More involved representations would involve the business of applying contemporary theories, or undertaking a work-based consulting project as an internship, or even a dissertation.

It is worth considering that research active faculty and doctoral students undertake research within all four quadrants as a matter of course. That is, academic enquiry necessarily involves varying elements of research content and processes and the business of being both a consumer and creator of knowledge. Many also teach and in doing so invoke at least one quadrant and may use all four, depending on course level, course size, student characteristics and academics' conceptions of teaching and learning.

2.3 The teaching-research gestalt model

The teaching-research gestalt empirical model is designed to encapsulate the nature of the relationship between teaching and research as experienced in the field of accounting. It is a development of the theoretical model described in Duff and Marriott (2012). Specifically, the model comprises eleven lower-order factors, which are in turn expressed as two higher order factors. The first higher order factor, *Positive aspects of the gestalt*, is measured by lower-order factors labelled: *Research Promoting Critical Analysis*; *Research-led Teaching*; *Students Value Contact with Researchers*; *Currency of Research to the Curriculum*; and *Student Learning*. The second higher order factor, *Negative aspects of the gestalt*, is calibrated by: *Extrinsic Rewards of Research*; *Research Dissonance from the Curriculum*; *Tension Between Research and the Professional Curriculum; Research and Teaching: Different Attributes*; and *Development of Professional Skills*. Figure 2 describes the model in a hierarchical diagram. The model is summarised in Table 1, along with a brief description of each subscale and an example item shown.

Figure 2: Empirical Teaching-Research Gestalt Model

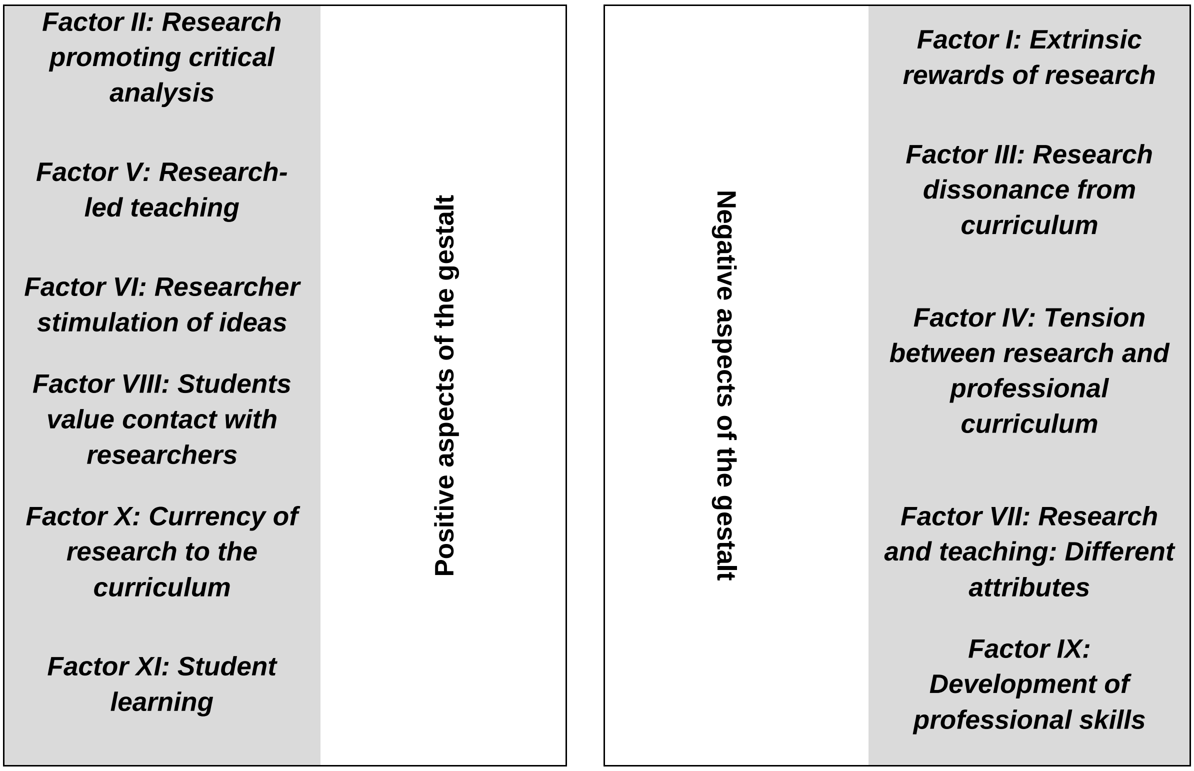


Table 1: Description of teaching-research gestalt instrument subscales

Subscale	*No of Items*	*Description*	*Example item*
Panel A: Positive gestalt			
Factor II: Research promoting critical analysis	4	Research, and researchers, develop(s) critical thinking in learners	'Integrating research into teaching promotes students' critical thinking'
Factor V: Research-led teaching	3	Research-active teachers are more effective in a range of ways than non-researchers	'Teaching staff involved in research are more committed to student learning'
Factor VI: Researcher stimulation of ideas	5	Teaching stimulates the researcher's thinking	'Some of my best research ideas have come out in the course of teaching'
Factor VIII: Students value contact with researchers	2	Researchers are enthusiastic about their work allowing a course to be up-to-date	'My students consider my course is up-to-date because of my research activity'
Factor X: Currency of research to the curriculum	2	Research allows a programme to be cutting edge in an ever-changing world	'You need research to be at the cutting edge, an out-dated course has no point in the real world'
Factor XI: Student learning	3	Research facilitates the creation of authentic learning materials	'Empirically-based case studies provide a means of demonstrating real accounting practice'
Panel B: Negative gestalt			
Factor I: Extrinsic rewards of research	7	Successful researchers have better career prospects than non-researchers	'Research, rather than teaching, is rewarded by promotion at my institution '
Factor III: Research dissonance from curriculum	5	Research is frequently remote from the technical accounting curriculum	'Students rarely see staff research as valuable to their own learning'
Factor IV: Tension between research and professional curriculum	2	Including contemporary research within the curriculum is at odds with the professionally-led syllabus	'The accounting profession's influence on the curriculum creates a tension if linking research to teaching'
Factor VII: Research and teaching: Different attributes	2	Research and teaching require different attributes and an individual may not possess all the qualities required for success in both	'It is unreasonable to expect good teachers to be good researchers and vice-versa'
Factor IX: Development of professional skills	2	Accounting is a professionally-oriented programme requiring the development of professional, not research, skills	'Students need professional skills, not research skills'

As foreshadowed in S1, the model was developed from a detailed review of the wider higher education literature including the, more limited, education literature pertaining to accounting (Duff & Marriott, 2012). From that review, some 19 propositions were identified relating to relations between faculty teaching and faculty research. Each of the 19 propositions relate to issues concerning one of: the curriculum, extrinsic rewards, researcher issues and student learning. Two matters are significant. First, many of the propositions were developed from the wider higher education literature do not pertain to accounting. For example, the idea that undergraduate students seek a career in research (i.e., as an academic following doctoral study), would be commonplace in many science disciplines, but unlikely in accounting. Second each proposition either relates to factors that positively influence the symbiosis of research and teaching, or to forces that negate their mutual articulation. Empirical testing of the model was undertaken using exploratory factor analysis reducing the 19 propositions to 11 factors (Duff & Marriott, 2016). Accordingly, we outline the 11 factors below, describing first those aligned to positive aspects of the gestalt (see s2.3), followed by those aligned to the negative aspects of the gestalt (see s2.4).

2.3 Positive aspects of the gestalt

The first factor, *Research Promoting Critical Analysis* is formed on the basis that research-active lecturers assist the development of students' critical thinking skills by taking student through the process of arriving at conclusions from the objectives of a research study and its findings. The research study itself becomes an intermediary in the process of the development of students' critical thinking skills (Kane, Sandretto and Heath, 2004; Kelly, Davey and Haigh, 1999).

The second factor, *Research-led Teaching*, relates to the idea that researchers are more able to teach and promote 'high quality' student learning (Cullen, Richardson and O'Brien., 2004; Leslie, Harvey and Leslie, 1998; Lindsay, Breen and Jenkins 2002; Rowland, 1996; Vidal and Quintanilla, 2000) [23]. Specifically, Vidal and Quintanilla (2000) identify the idea that research-active staff are better-placed to determine what is required of a professional. Jenkins, Blackman, Lindsay and Paton-Saltzberg (1998) and Lindsay et al. (2002) contend that students view researchers as better dissertation and project supervisors.

Students Value Contact with Researchers is the third component of positive aspects of the gestalt. Earlier work considering teaching and research relations tended to focus on correlational studies (uz Zaman, 2004) with Neumann (1994) being the first to break this mould by considering student perspectives. Notably students perceive there to be significant benefits from teaching staff being research-active (Cullen et al., 2004; Lindsay et al. 2002; Neumann, 1994; Zamorski, 2002). Furthermore, there is evidence that high

[23] Within the higher education literature, approaches to learning that encourage active learning and reflection and personal growth are seen as 'high quality learning' as opposed to so-called surface approaches that use rote learning and assessment, emphasise techniques over concepts and rules over principles.

performing research departments tend to produce better scores on student surveys of satisfaction (Innovation, Universities, Science and Skills (IUSS) Committee, 2009).

The fifth element of positive aspects of the gestalt relates *Currency of Research to the Curriculum*. Notably, research-active faculty increase the stock of knowledge to the curriculum (Coaldrake and Stedman, 1999; Durning and Jenkins, 2005; Jenkins et al., 1998; Lindsay et al., 2002). That is, researchers may include their own research, providing valuable details of how the research was conducted, their motivations for undertaking the work and the process of making sense of the findings within a theoretical framework.

The final subscale describing positive aspects of the gestalt is labelled *Student Learning*. In particular, staff research is said to provide students with a sense of staff as being learners themselves and as enthusiastic individuals committed to learning (Jenkins et al., 1998 p.133). In particular, student learning is enhanced by their inclusion in the sometimes messy-world of research (Cullen et al., 2004; Hunter, Laursen and Seymour, 2007; Jenkins, 2004).

2.4 Negative aspects of the gestalt

The first subscale of the negative aspects of the gestalt is labelled *Extrinsic Rewards of Research*. This measure has seven items. These items refer to the idea of research being the academic activity in a university that carries the greatest financial rewards via promotion and performance-related pay and esteem. Consequently, faculty are steered towards producing research outputs of the highest quality rather than undertaking other traditional academic activities, such as teaching, administration, governance and service duties, that are simply seen as ‘part of the job’. Such views are supported by a significant international literature that considers staff perceptions (Brew, 1999; Fairweather, 1993a, 1993b, 1994; Ramsden and Martin, 1996; Robertson and Bond, 2001; Serow, 2000; Tien, 2000; Vidal and Quintanilla, 2000) and the views of chief academic officers (Leslie et al. 1998).

The second element of the negative aspects of the gestalt is *Research Dissonance from the Curriculum*. This subscale is measured by five items. These questions address the issue that including research may distort a well-calibrated curriculum, by including content that may be at a higher level than intended and that place undue emphasis on some components. Some studies focus on the adverse effects of a lecturer’s research interests being to the fore (Jenkins et al., 1998; Neumann, 1994). Other studies emphasise the idea that for success students need to become stakeholders in the lecturer’s research, that is, where the research being communicated is relevant to the curriculum and student’s future professional interests (Brew, 1999; Jenkins et al., 1998; Lindsay et al, 2002; Zamorski, 2002).

Tension between Research and the Professional Curriculum is the term given to the third subscale of the negative aspects of the gestalt. This subscale consists of two items, which describe the difficulties of including research in a curriculum dominated by professional accounting interests. Examples include a possible conflict between academic research and a technically-oriented curriculum. This subscale has its origin in studies of professional disciplines such as accounting (Zeff, 1989), the built environment (Griffiths, 2004; Webster, 2002) and healthcare (McKee, 2002). In essence, research reflects creative enquiry and interpretation whereby a constantly developing corpus of literature defines what we understand about a topic, whereas professional curricula tends to emphasise extant practice, techniques, rules and regulation. Thus accounting is often taught as a static body of knowledge with the exception of regulation, professional standards and company and taxation law; rather than something conceptual with historical roots and capable of critical interpretation (e.g. James, 2008; Lehman, 2013).

The fourth subscale relating to negative aspects of the gestalt is labelled *Research and Teaching: Different Attributes*. This two-item subscale expresses the idea that research and teaching require different personal qualities and skills (Barnett, 1992; Romainville, 1996; Webster, 1985). According to Goode's theory of role strain, the time and energy associated with undertaking one role will necessarily impact on another; or in this context, time spent on research will affect teaching quality and vice-versa. A range of studies identify teaching load as being negatively associated with research output (Austin, 1996; Bellas and Toutkoushian, 1999; Fairweather, 2002; Fox, 1992; Gonzalez-Brambila and Veloso, 2007; Horta et al., 2012; Noser, Manakyan and Turner, 1996; Porter and Umbach, 2001).

The final subscale of the questionnaire relating to negative aspects of the gestalt is labelled *Development of Professional Skills*. This is calibrated by two items that focus on the idea that the development of professional skills is more relevant and has greater utility for students of accounting than research skills. This subscale owes its provenance to those studies of professional education which identify the ascendant position held by the business of 'how to do the job' (Griffiths, 2004) rather than the acquisition of intellectual skills. Such views are echoed in a body of critical accounting literature that describes the pernicious role of professional accreditation. That is, professional accreditation places undue emphasis on techniques, regulations, rote-learning and rote-assessment, at the expense of understanding the place of accounting in society and the economy (e.g., Sikka, Haslam, Kyriacou and Agrizzi, 2007; Sikka and Willmott, 2002). It fails to appreciate the distinction between 'accounting degrees' and 'accounting qualifications'. Similar critiques have been conducted of accounting textbooks (Ferguson, Collinson, Power and Stevenson, 2005; Sikka, 1987; Ward and Salter, 1990) and professional accounting colleges (Power, 1991).

2.5 Research questions

The foregoing literature review suggests that relations between research and teaching are not a universal good but contested. Some academics are highly supportive of the notion that quality teaching and quality research go hand-in-hand. Other writers dismiss the necessity for teaching and research to be linked. The contested nature of research and teaching linkages in relation to the discipline of accounting prompts three research questions:

1. What are the defining characteristics of the accounting academy in the UK in terms of their experience, research interests, proportion of time spent on teaching

and research, their seniority, their location in a pre- or post-1992 institution and the nations in which they work?
2. Are there clusters of accounting academics with distinct profiles based on their views of the relationship between teaching and research?
3. What are the demographic characteristics of these clusters?

These three questions are addressed by the use of a questionnaire survey specifically developed for the purposes of this investigation, with questions (items) derived from the extant literature reviewed above. The questionnaire design, the administration of the survey, the validation of the research instrument and description of the demographic composition of survey respondents is described in section 3.

3. Method

3.1 Questionnaire design

The questionnaire used in the study consisted of three sections. Section 1 consisted of 61 statements to elicit perceptions of the teaching-research gestalt, requiring respondents to indicate their acceptance using a five-point Likert scale anchored with ‘strongly agree’ and ‘strongly disagree’. Statements related to either normative statements made by other researchers about the nexus or were phrased in such a way to relate to a respondent’s own experiences. The 61 statements were derived from the extant education literature reviewed as related in S2 and from which the 19 underlying propositions mentioned there were derived. Section 2 contained questions gathering demographic information from the respondents including their gender, age group, seniority and research interests[24]. Section 3 elicited respondents’ views on eight statements made about the teaching-research nexus and, by implication, the education research gestalt. For content validation purposes, the instrument was piloted by six accounting academics who reviewed the items for content representativeness.

3.2 Data collection

Questionnaires were distributed by email in 2010 to 1,491 accounting academics in the UK using Helliar, Gray and Monk’s (2008) *British Accounting Association’s Research Register*. The aim of the study was clarified in the email sent with the questionnaire. Respondents were assured that responses were confidential, that their anonymity would be observed and that the results of the study would be used for research purposes only.

3.3 Instrument validation

A comprehensive validation exercise of the measurement properties of the scores yielded by the survey was undertaken (Duff & Marriott, 2016). Exploratory factor analysis identified a model consisting of two higher-order factors, each measured by five and six lower-order factors respectively.

[24] The questionnaire used a summary of the list of research interests in Helliar et al.’s (2008) BAA Research Register

The survey sample is comprised a number of demographic groups. To evaluate differences between groups multivariate analysis of variance (MANOVA) is used. MANOVA is possible as the factor analytic variables are more likely to demonstrate the equality of variance and normality assumptions necessary for multivariate analysis. As a multivariate method, the analysis provides useful diagnostic information about possible interaction between grouping variables that may influence analysis.

3.4 Characteristics of the survey sample

Of the 1,491 academics invited to participate, 257 returned useable responses, representing a response rate of 17.2%. The response rate is comparable with similar surveys of faculty. Lowe and Locke's (2005) report a 16% response rate to their online survey that sampled a similar population. Brinn, Jones and Pendlebury (2001) achieved 23.6% but they limited their survey to a narrow population of publishing accounting academics (*N*=569). It is possible that our survey may reflect a lack of interest as research publication remains a somewhat minority interest for accounting faculty in the UK (see Beattie and Goodacre, 2004, 2012; Brown et al. 2007). It is plausible also that the method of the e-mail contact introducing the web-based survey may have fallen foul of spam catching software commonplace in many academic institutions and so many of the emails may not have reached their intended destination.

To evaluate response rate bias on the sample, a comparison was applied to early (first 33%) and late (last 33%) of respondents using the Wilcoxon-Mann-Whitney non-parametric test. This assumes late respondents are similar to non-respondents (Dillman, 1978). Only one statistically significant difference (α=.05) was found across the 65 survey items to which this test was applied. It is unlikely that response bias affects the validity of the results of the present investigation.

The structure of the respondents was examined to indicate its robustness. The survey completers are broadly representative of the population of universities sampled. Table 2 indicates the make-up of our survey sample in terms of seniority. The distribution across designations is representative of the seniority structure over the universities sampled. Senior staff (i.e., senior lecturer and above), represent 45% of the sample.[25] Of the survey population, only 67% worked in England, this is out of proportion to its population.[26]

[25] In England and Wales, in post-1992 universities, senior lecturers are employed on a similar grade to lecturers in pre-1992 institutions. Similarly, principal lecturers in England and Wales in post-1992 institutions are equivalent to senior lecturers in pre-1992 universities.

[26] The composition of the sample was compared to the composition of the surveyed population. Non-parametric binomial testing was undertaken comparing the proportions of academics located in old or new universities; academics entered or not entered in the research selectivity exercise; seniority (promoted/not promoted); gender (where gender could be determined); and country. The only variable to record a statistically significant difference was country where respondents in Scotland (23% of sample) exceeded the 17% of academics located in Scotland in the population.

Table 2:
Seniority of position of respondents and country worked in

Job Title/Country worked in	*No in sample*	*% of respondents*
Professor	60	25.3
Reader	5	2.1
Senior/Principal Lecturer	41	17.3
Lecturer	131	55.3
Job title not reported	*20*	
England	164	67.2
Scotland	56	23.0
Wales	12	4.9
Northern Ireland	12	4.9
Country not reported	*13*	

Forty three per cent of respondents were entered into the 2008 Research Assessment Exercise (RAE). Men comprised 64% of the respondents and women 36%. Both the gender profile and distribution of inclusion in the recent research selectivity exercise of respondents are illustrative of the population surveyed.

The distribution of research areas of respondents is provided in Table 3. The representation across the research areas is broadly what might be expected.

Table 3:
Research area of respondents

Research area	*In sample*	*% of respondents*
Accounting History	7	3%
Accounting Profession	9	4%
Accounting Theory	2	1%
Auditing	7	3%
Computing	3	1%
Critical, Social and Environmental	21	8%
Education	33	13%
Financial Accounting and Reporting	32	13%
Financial Institutions	13	5%
Financial Management	17	7%
Financial Markets	22	9%
Government, Public Sector and Not-for-Profit Organisations	16	6%
International Aspects	5	2%
Management Accounting	26	10%
Market Based Accounting Research	3	1%
Methodology and Methods	1	0%
Other Aspects	12	5%
Other Finance	6	2%
Taxation	6	2%
Unknown	10	4%

Table 4 provides some details of how the survey population spends its time at work. Teaching represents the largest proportion at 44%. Own research is the second most significant activity, in terms of time, at 24%. Teaching-related administration (e.g., participation in committees and admissions) consumed 22% of the sample population's time, with research-related administration (e.g., doctoral student supervision, editorial and reviewing activities) accounting for 10% of the sample's workload. However, as might be expected, the standard deviations reported for each of these activities are relatively large, which suggests that how the sample population spends its time is not evenly distributed. An analysis of individual responses identifies some academics may undertake no teaching, while others will undertake little personal research or research-related activity.

Table 4:
Percentage time spent on work activities

Work activity	*Mean %*
Administration	20
Research and related	33
Consulting	5
Teaching	42

4. Results

Table 5 reports the means and standard deviations for the subscales used in the study and that were represented in section 1 of the questionnaire. In general, respondents ascribed the highest values to factor V *Research-led Teaching* (μ=3.22, on a scale of 1 to 5); factor IV *Tension between Research and the Professional Curriculum* (μ=2.96); and factor III *Research Dissonance from the Professional Curriculum* (μ=2.96). Similarly, respondents rated factor XI *Student Learning* (μ=1.86) the least significant factor.

To explore distinct views of the relationship of research to teaching within the academics sampled, the 11 subscales were subjected to a *k*-means cluster analysis, using the log-likelihood distance measure and Schwarz's Bayesian clustering criterion. As not all 11 subscales are measured using the same scale, standardization of the scores was undertaken.

The number of clusters was determined by examining: first, the within cluster variation plots, to determine the distance between the potential clusters across each measure case; and second a Bonferroni-adjusted comparison of means between cluster scores on each measure. Using these decision-rules, it was decided that a three-cluster solution was most appropriate for the data.

A one-way MANOVA was conducted using the 11 subscales as dependent variables and the clusters as the fixed factor. Statistical significance testing was undertaken (α = .05) and effect sizes are reported. [27] The results show significant differences between the

[27] Effect sizes are reported by the partial eta-squared (η^2) statistic.

three clusters on the dependent measures [Wilks' λ = .167, $F(22, 248) = 31.29$, $p < .001$, $\eta^2 = .59$]. [28] Table 6 contains the standardised means and standard deviations on the eleven subscales for the three clusters, in addition to the *F* tests and partial effect sizes. The large *F*-ratio small observed statistical significance level, and large effect sizes associated with each of the eleven subscales, suggests there is high variability between the three clusters for each of these variables. From this we can conclude that the clusters are satisfactory descriptors of different types of academics.

[28] Effect size measures are interpreted as .1, small; .3 moderate; .5 high (Cohen, 1977)

Table 5: Descriptive statistics and correlation matrix for eleven factors

Factor, coefficient alpha	*Mean*	*Std. Dev.*	*I*	*II*	*III*	*IV*	*V*	*VI*	*VII*	*VIII*	*IX*	*X*
I: Extrinsic rewards of research, α = .85	2.31	.89										
II: Research promoting critical analysis, α = .85	2.82	.74	-.01									
III: Research dissonance from curriculum, α = .75	2.96	.78	.30	-.02								
IV: Tension between research and professional curriculum, α = .63	2.96	1.08	.10	.13	.38							
V: Research-led teaching, α = .73	3.22	1.02	-.24	.30	-.42	-.09						
VI: Researcher stimulation of ideas, α = .72	2.70	.71	-.11	.27	-.23	-.05	.27					
VII: Research and teaching: Different attributes, α = .74	2.95	1.14	.28	-.10	.43	.22	-.35	-.32				
VIII: Students value contact with researchers, α = .87	2.67	1.27	-.13	.35	-.30	-.03	.41	.29	-.25			
IX: Development of professional skills, α = .76	3.54	1.08	.07	-.23	.36	.22	-.21	-.14	.29	-.24		
X: Currency of research to the curriculum, α = .60	2.52	.93	-.19	.31	-.32	-.06	.45	.25	-.24	.29	-.25	
XI: Student learning, α = .62	1.86	.67	-.03	.38	-.11	.02	.21	.23	-.02	.33	-.05	.28

Note: $p < .05$; $r > .14$; $p < .01$; $r > .18$

Table 6: Comparisons among the three-cluster profiles, ELAcc

Clustering variable	*Cluster 1 (N = 88) Teaching-Research incongruity*		*Cluster 2 (N = 56) Teaching-Research connexion*		*Cluster 3 (N = 107) Extrinsic-reward focus*				
	Mean	*St. Dev*	*Mean*	*St. Dev*	*Mean*	*St. Dev*	*F, (2, 249). p*	*Partial η^2*	*Inequality*
Panel A: Positive gestalt									
II Research promoting critical analysis	1.36	0.37	2.83	0.76	2.01	0.82	36.022, <.001	0.13	2 > 1, 3
V Research-led teaching	3.00	0.81	4.23	0.75	2.86	1.00	46.194, <.001	0.28	2 > 1, 3; 3 > 1
VI Researcher stimulation of ideas	2.54	0.70	3.12	0.59	2.64	0.68	14.664, <.001	0.11	2 > 1, 3
VIII Students value contact with researchers	2.34	0.90	3.85	1.25	2.33	1.24	40.255, <.001	0.25	2 > 1,3
X Currency of research to the curriculum	2.38	0.84	3.21	0.94	2.24	0.83	25.004, <.001	0.16	2 > 1,3
XI Student learning	1.71	0.59	2.18	0.80	1.84	0.61	11.577, <.001	0.07	2 > 1, 3
Panel B: Negative gestalt									
I Extrinsic rewards of research	1.85	0.45	1.65	0.51	3.30	0.57	276.216, <.001	0.67	1, 3 > 2; 1 > 3
III Research dissonance from the curriculum	3.08	0.62	2.17	0.56	3.31	0.73	55.221, <.001	0.31	1, 3 > 2; 1 > 3
IV Tension: research and professional curriculum	2.93	1.04	2.64	1.22	3.18	0.98	5.349, .013	0.04	3 > 2
VII Research and teaching: Different attributes	3.00	1.02	2.15	0.85	3.41	1.16	24.501, <.001	0.17	1, 3 > 2; 1 > 3
IX Development of professional skills	3.74	1.01	2.89	1.03	3.71	1.04	13.261, <.001	0.10	1, 3 > 2

Pairwise comparisons of the three clusters were undertaken applying post-hoc tests, Tukey's HSD, see Table 6. Considering the positive side of the gestalt dichotomy, cluster 2 produces statistically significantly higher scores (p<.001) than cluster 1 and 3 for each of its six constituent factors. When the negative aspects of the gestalt are considered, cluster 3 had statistically significantly higher scores (p<.001) on positive gestalt factors than clusters 1 and 2 for *Extrinsic Rewards of Research*, *Research Dissonance from Curriculum*, *Research and Teaching: Different Attributes* and *Development of Professional Skills.* In the case of *Research Dissonance from Curriculum* (p=.036), *Research and Teaching: Different Attributes* (p=.018) and *Development of Professional Skills* (p<.001) cluster 1 produced higher scores than cluster 3.

Three teaching-research gestalt profiles were established from the cluster analysis. Examination of the partial effect sizes for the F tests undertaken provide an indication of those subscales which provide the greatest degree of differentiation amongst participants. Specifically the negative aspects of the gestalt measures *Extrinsic Rewards of Research* (η^2=.67) and *Research Dissonance from the Curriculum* (η^2=.31) and positive side of the gestalt measures *Research-led Teaching* (η^2=.28) and *Students Value Contact with Researchers* (η^2=.25). Therefore, these four subscales identify the most contested ideas of the teaching-research gestalt in accounting. There is widespread variation in academics' beliefs about the extrinsic rewards of research, with many seeing research as the way to advance in career terms but with less relevance for teaching and the curriculum. In contrast, others see research as something integral to the collective identity of the teaching of accounting in higher education. The notions of teaching being led by research and the idea that students actively value being taught by research-active staff are also contested.

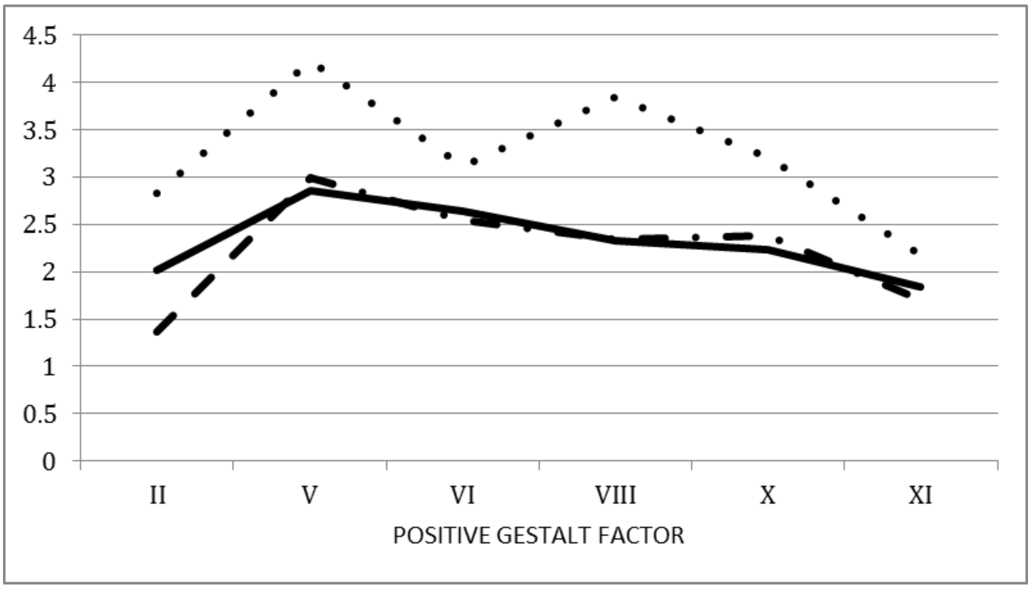
By contrast, the two measures that produce the least variation are *Student Learning* (η^2=.07) and *Tension between Research and the Professional Curriculum* (η^2=.04) suggesting that accounting academics in the UK have a relatively uniform view on these aspects of teaching and research relations. Specifically, respondents see little traction in the idea that student learning is significantly supported by research and are equivocal about the idea that research and the professional accounting curriculum can hinder each other.

The demographic membership of each cluster is also reported in Table 7. Cluster 1 is low on positive gestalt factors and moderate to high on negative gestalt factors. This cluster is accordingly labelled 'a world of teaching-research incongruity' implying a lack of fit between an academic's research activity and their teaching. Or, alternatively, a situation where an academic is engaged wholly on teaching-related duties or, conversely, wholly on research work. With 88 academics, it is the second largest cluster, consisting of the highest proportion located in post-1992 universities (75%), the smallest proportion located in Scotland (16%) and the youngest (81% aged 55 years of age or younger). Figure 3 displays the three distinct profiles for the positive teaching-research gestalt identified using the cluster analysis. The negative teaching-research gestalt profiles are shown in Figure 4.

Table 7: Demographic membership of clusters

Cluster, variable	*1 (N=88)*	*2 (N=56)*	*3 (N=107)*
Gender, % male	63	**70**	64
Scotland, % located	**16**	**27**	23
Post-1992, % located	**75**	59	**41**
Senior, % on promoted post	56	**61**	45
Experience, % 11 years or more	73	75	73
56+, % aged 56 years or older	**19**	29	27
Research selectivity, % entered in exercise	48	**25**	50

Figure 3: Cluster scores for Positive aspects of the gestalt factors



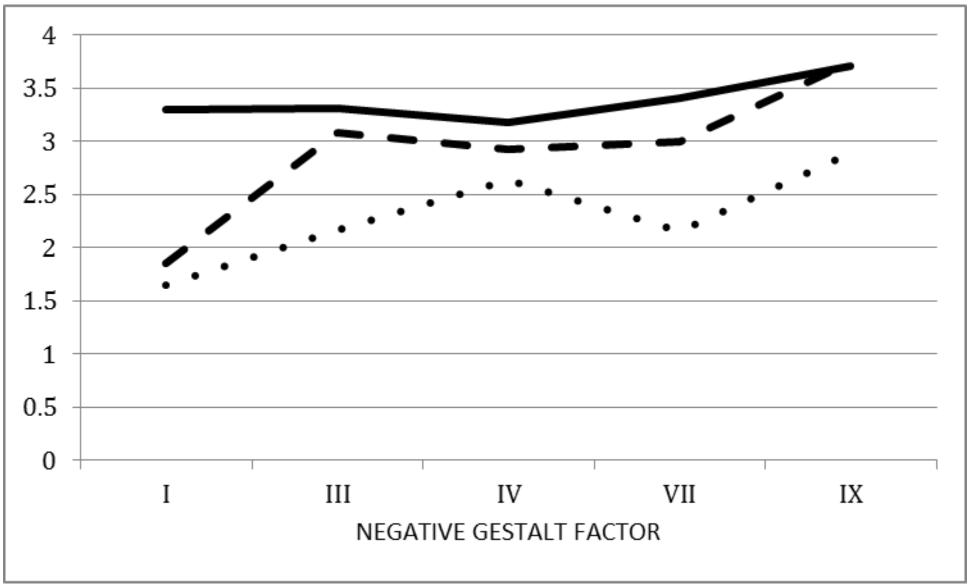
Key:

- - - Cluster 1 ‘teaching-research incongruity’;

. . . . Cluster 2; ‘teaching-research connexion’

___ Cluster 3; ‘extrinsic-rewards focus’

Figure 4: Cluster scores for Negative aspects of the gestalt factors



Key:

\- - - Cluster 1 ‘teaching-research incongruity’;

. . . . Cluster 2; ‘teaching-research connexion’

___ Cluster 3; ‘extrinsic-rewards focus’

Cluster 2 is characterised by positive teaching-research gestalt factor scores and correspondingly the lowest scores on the negative teaching-research gestalt factors. It consistently has the highest scores on the positive factors and lowest on the negative factors. This cluster then could be described as populating a ‘world of teaching-research connexion’. It is the smallest cluster with 56 academics, has the highest proportion of respondents located in Scotland (27%), the lowest proportion entered in the research selectivity exercise (25%) and, marginally, the highest proportion on a promoted post (61%).

Cluster 3 is characterised by low scores on positive gestalt factors and the consistently highest scores on the negative gestalt factors. This cluster then is allied to the ‘world of teaching-research incongruity’ (cluster 1). However the cluster is characterised by the highest scores on Extrinsic Rewards of Research, clearly differentiating it from Cluster 1. Thus, the lack of extrinsic rewards becomes a defining feature of why this cluster holds relatively negative views of the supposedly symbiotic relationship between education and research. Accordingly, this cluster is labelled ‘extrinsic rewards focus’. It is the largest cluster with 107 respondents, has the highest proportion located in pre-1992 universities (59%) and the highest proportion entered in the research selectivity exercise (50%).

Overall then we are presented with a picture whereby Clusters 1 and 3 emphasise the mutual exclusivity of accounting research and accounting teaching; the differentiating factor being the two clusters being the *Extrinsic Rewards of Research* factor. An interpretation of this might be that many Cluster 1 inhabitants would not expect to see a significant increase in their salary without moving to an institution that explicitly rewards research. Cluster 2 labelled ‘teaching-research connexion’ positively supports the idea that. What emerges is a picture of a sample of accounting academics in the UK, three-quarters of whom largely see staff research and teaching as relatively unconnected and dissimilar. Just under a quarter see a significant nexus between the two academic activities.

5. Discussion

The main aim of this study was to examine the views of accounting academics in the UK towards the mutuality of accounting research and education. This has been achieved using cluster analysis of scores on 11 measures of what we term the teaching-research gestalt. In terms of the sample, we learn that respondents were evenly divided roughly between those on a promoted post (e.g., senior lecturer or above) (45%) and those on the lecturer scale (55%). Two-thirds of the sample worked in England, with 23% working in Scotland, a country differentiated from the other three UK nations by its tradition of four-year degrees and government policy of free education. The rest of the UK has retained the Oxbridge tradition of three-year degrees and charges fees up to £9,000 per annum. Nearly two-thirds of the sample was men.

Teaching (42%) and research (33%) were reported as the most common work activities undertaken, as might be expected. In terms of research interests, accounting education (13%), (private sector) financial reporting (13%), finance (15%) and (private sector) management accounting (9%) were the most common research specialisms for respondents.

The main contribution of this paper lies in the identification of three defining clusters of accounting academics. Essentially, these describe two typologies. The first, describing a 'world of teaching-research incongruity' whereby research and teaching are both legitimate academic activities but are mutually exclusive. That is, in this world, there is little symbiosis between the two and the shibboleth that teaching and research go hand-in-hand has little currency in accounting education. The second world, a 'world of teaching-research connexion' conversely sees research and teaching as entwined and reciprocal; their inter-relationship an axiom of higher education: a passion for research feeds an interest in teaching and vice-versa. These findings suggest that although some academics can be recruited to the idea that teaching and research can and should be linked, there will be many that are resistant or hostile to the notion.

The demographics of these two worlds are unexpected. The world of 'teaching-research connexion' is more likely to be inhabited by a male academic on a promoted post in an institution in Scotland and paradoxically less likely to be included in a research selectivity exercise. It is unsurprising that cluster 2 has greater representation in Scotland, where significant amounts of accounting teaching are not guided by a desire to attain exemptions from professional examinations and where an individually supervised dissertation at the final level of the degree award is commonplace. However, the relatively low proportion of staff included in the research selectivity exercise is unexpected. In determining attitudes to teaching-research relations, it seems likely that a curriculum that is more geared towards student enquiry and selective inclusion of contemporary research described in Figure 1 has a greater effect than an academic's personal status and his/her identity as a researcher. .

Although Clusters 1 and 3 inhabit a largely similar world, rejecting the influence of contemporary research and student enquiry on accounting teaching, their demographics differ significantly. Cluster 3, heavily focused on the *Extrinsic Rewards of Research*, was more likely to be found in a pre-1992 institution (59%), while just 25% of Cluster 1 was located in a traditional pre-1992 university. In aggregate then, whether one was located in a pre- or post-1992 institution seems to make little difference. What does matter was that *Extrinsic Rewards of Research* becomes a significant factor in institutions which are heavily research-focused. In these institutions, research output, in terms of quality and quantity, is rewarded, conversely, a paucity of research production results in redundancy or moving to teaching-only contracts.

Our findings add to the body of accounting education history that documents the development of accounting education and research and their sometime relationship. In particular, the study reports that distinct sub-groups where accounting education and research are strongly linked or alternatively are mutually incompatible. These findings are entirely compatible with the debate in the US about the role of emerging research capabilities, new academic accounting journals, increasing numbers of doctorally-qualified faculty and increasingly distant professional practice. The final third cluster identifying the lack of extrinsic rewards, articulate van Wyhe's (2007a p.176-7) observations that sixty years ago that 'research that involved statistics and computers... (rather than writing textbooks or teaching) …was the doorway into the kingdom of academic heaven for accountants'.

This study has three limitations that are suggestive of further research. First, although the gestalt model is predicated on extant education literature, the unusual, highly technical focus of accounting as a discipline warrants further exploration of academics and other educational stakeholders, such as professional bodies and employers to consider how research may contribute to educational provision, even in diffuse ways. Second, the work is situated in the UK: extensions to the work in other jurisdictions would be welcome. A lasting effect of research selectivity exercises in the UK has been to make academic work more specialised, that is, there is a focus on research with some teaching, or teaching-only. In other settings, academic labour might be more egalitarian with all academics undertaking similar job roles. Third, the research highlights a frequent disconnect between teaching and research. Prior work in other disciplines (see Duff & Marriott, 2012) identifies the many productive ways to achieve a teaching-research nexus. Despite the significant resistance noted to integrating research into teaching, four-year degree programmes in Scotland may provide exemplars of what can be achieved. Fourth, accounting education history demonstrates that the debate, although often incidental to the relationship between professional practice, is not new, particularly as the academy developed to accommodate alternative forms of accounting, new journals and more diverse academicians. The nature of survey research demonstrates the generalisability of findings. Qualitative approaches could unpack some of the underlying beliefs and philosophies of those favouring teaching-research connexion and teaching-research incongruity.

6. Conclusion

The creation and dissemination of knowledge is the *raison d'être* of universities. The model on which our survey is predicated is drawn from a multidisciplinary context and identifies the wide range of means academics use to integrate research into their teaching and how teaching inspires their research. Outside accounting, many of our peers consider student enquiry as a primary educational objective. In non-accounting subjects, students are more likely to be involved in the creation of knowledge. Yet despite decades of debate about the travails of accounting education and the need for educators to be doctorally-qualified and engaged in the production of accounting research (see van Wyhe, 2007a), research itself takes a backseat in the accounting curriculum.

There appear to be three factors that create this pedagogic difference. First, professional accreditation creates a relatively uniform accounting curriculum, requiring the passive acquisition of significant amounts of technical material from long-established textbooks, tailored to this uniform curriculum in content, format and culture. Departments of accounting within business schools operate in highly competitive 'international' markets, meaning that they have to offer accredited programmes to attract, often 'full-fees' overseas, students. This leaves less time or space for the development of research skills or to engage with contemporary accounting thought. An exception seems to be Scotland where a four-year degree allows greater scope for the inclusion of higher-level contemporary material and the development of higher-level skills among academics and students.

Second, historically there have been few attempts at integrating research into the academic accounting curriculum. Accounting in universities has developed from strong professional roots, especially in post-1992 universities, where 30 years ago doctorates in accounting were usually only acquired after professional training, if at all [29]. Unlike other academic disciplines, where student research is an important component of student learning, accounting education is often seen as a separate activity from the process of academic faculty research.

Third, our survey finds that resistance is encountered from accounting faculty. A major problematic is the lack of extrinsic rewards available to attempt to integrate research into education, or vice-versa. Furthermore, this kind of educational development eats into the time available to conduct and publish research, which is was viewed as a significant source of deferred remuneration in the form of promotions and eventual pension payments.

In an era when the foundations of accounting as a university discipline are under an even greater threat than the one existing hitherto, particularly from institutions keen to milk accounting student income as a cash cow, we would suggest integrating research and education is a potential survival strategy for hard-pressed departments of accounting. Private sector suppliers of accounting education cannot compete in research terms and by integrating modern accounting thought and enquiry at all levels of the curriculum would create a situation where universities have a 'unique selling proposition'. That is, an ability to create and conserve knowledge, rather than selectively communicate extant knowledge and practice. The process of research and scholarship is necessarily labour-intensive, meaning

[29] In pre-1992 universities, academics with doctorates in other social science disciplines were recruited and typically taught small classes.

that departments of accounting should not labour under enormous staff to student ratios, or operate in a climate where research is only valued for research selectivity exercise results.

The history of accounting education in higher education points to a longstanding neurosis that perhaps accounting doesn't belong in the university curriculum (Zeff, 1989), is imperilled (Albrecht and Sack, 2000) and lacks the ethical backbone society expects (van Wyhe, 2007b). We argue that integrating accounting research within education allows the academy to normalise critical approaches to the discipline and develop critical students, who will become the finance directors, audit partners and business leaders of the future. But accounting education must go further. Not only should students of accounting absorb contemporary accounting research but should become active producers of accounting knowledge.

Finally, our recommendations to maximise research and teaching linkages in accounting can be considered novel in an accounting education landscape that has spent many decades lamenting related problems of declining professionally-qualified faculty, accounting research ignored by practitioners, a stable accounting curriculum and static pedagogies. Despite many normative prescriptions from both the academy and the profession, and sometimes together, few have championed the idea that immersing students in accounting research will create the critical thinking accountants and faculty of the future. We argue it is high time for change.

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EDU004 PREDICTING AT-RISK FIRST YEAR ACCOUNTING STUDENTS: THE CASE OF NELSON MANDELA UNIVERSITY

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ABSTRACT:

It is well documented that tertiary institutions in South Africa are reporting high failure rates in accounting courses and several calls have been made to address this in recent literature. Scholars have specifically identified several factors that influence failure in accounting in the first year of tertiary education. In this context, the primary objective of this study was to develop a predictive model capable of identifying students at risk of failure in first year accounting.

The sample consisted of all students registered for the R101 first year accounting module at the Nelson Mandela Metropolitan University. Historical data, both biographical and educational, was collected on which to undertake the data analysis. The data was analysed by means of descriptive statistics and a discriminant analysis.

The findings show that the prediction value of the model developed as a whole is high, with 80.6 per cent of students being accurately classified into either the at-risk or not-at-risk category. The ability to accurately predict was both statistically and practically significant. Completion of Matric accounting at school level, and attendance at an English-speaking school were identified as the most significant factors in predicting at-risk and not-at-risk first year accounting students. The predictive model developed can be invaluable in identifying at-risk students, as interventions and support could assist them in overcoming their challenges and ultimately improving pass rates.

Key words: *accounting, at-risk, failure, first year, students, university*

INTRODUCTION

According to Degli (2009), “there is a huge demand for, and a chronic undersupply, of chartered accountants” in South Africa. The South African Institute of Chartered Accountants contends that South Africa requires more than 22 000 qualified accountants to fill the demand gap facing the industry (SAICA, 2008; SA Study, 2013; Ungersbock, 2015; Worldbank, 2013). The South African Government’s National Scarce Skills List published in 2014, reports accountants as being ranked 12th of 100 occupations in the country that are considered to be in short supply (Nzimande, 2014; Ungersbock, 2015).

The level of difficulty of studying accounting at tertiary level has been identified as a reason for the skills shortage facing the country (Beck & Pelle, 2015:3; Wadee, 2009). Accounting exams are perceived as very difficult, often resulting in poor pass rates (Multisearch, n.d.). It is estimated that currently only 3 000 young people qualify in accounting at third year level each year (SA Study, 2013). Similarly, a survey undertaken in 2010 reports that “between 1999 and 2009, the total number of university enrolments in accounting was 504 068, against 60 114 degreed graduates over the same period – an 11.9% pass rate” (Keepile, 2010 cited in Winfield & Luyt, 2012:2).

Much concern exists regarding the high shortage of accounting skills and the need for more accountants to enter into the accounting profession in South Africa. It is well documented that tertiary institutions are reporting high failure rates in accounting courses (Principe, 2005:1; Van Romburgh, 2014:17; Waples & Darayseh, 2005:87). For example, statistics for the Faculty of Business and Economic Sciences at the Nelson Mandela Metropolitan University (NMMU) – in particular those of first year students – indicate that success rates of first year students require urgent attention (Nel & Neale-Shutte, 2013).

The monitoring of at-risk students is a key priority of the Teaching and Learning Improvement Plan developed for the Faculty of Business and Economic Sciences at NMMU. The current study is a direct response to the recommendation from the NMMU Office for Institutional Planning to explore systematically linking the support provided to first year students with a more coherent and overarching strategy and programme, and to develop a comprehensive, institution-wide, early warning intervention system for at-risk students (Nel & Neale-Shutte, 2013). More specifically, this study will aim to explore and describe factors that identify at-risk first year accounting students at NMMU, so that future interventions can be implemented to improve success rates.

The primary objective of this study is therefore to develop a predictive model capable of identifying students at risk of failure in first year accounting that can serve as an early warning system for identifying at-risk first year accounting students at NMMU. The term at-risk is often used to describe students or groups of students who are considered to have a higher probability of failing academically or dropping out of an institution of higher learning (Edglossary, 2013). The development of such a warning system would be invaluable to NMMU and the wider university community as once at-risk students have been identified, interventions and support could assist in overcoming their challenges and ultimately improving pass rates.

What follows is firstly a description of several studies undertaken in higher education to identify the factors that contribute to the failure of first year students followed by the reasons for failure in first year accounting. Thereafter, a discussion of each of these reasons will take place. A research hypothesis which is subjected to empirical testing in this study is then formulated. The research design and methodology adopted will then be elaborated on and the methods used for analysing the data discussed. Finally, the empirical results will be presented and interpreted.

LITERATURE OVERVIEW

Several studies (Bokana & Tewari, 2014; Bone & Reid, 2013; Zekarias, Aba-Milki & Mikre, 2015) have been undertaken to identify the factors that contribute to the failure of first year students in general. Investigating the factors specifically influencing the high failure rates and poor academic performance of students studying a first year course in accounting has generated considerable research attention in recent years. Several of these studies are described in the paragraphs that follow.

Baard, Steenkamp, Frick & Kidd (2010) conducted a study to determine the correlation between specific factors and students' success. The target population consisted of 2 103 registered first year accounting students of 2007 and 2008 registered at a South African contact university. The simultaneous effect of the most important factors in determining success in students was then determined by means of a multivariate technique to derive a profile of successful and at-risk students. Their results found that the most important factors in determining the success of students in first year accounting were average grade 12 mark, whether students had accounting as a subject at secondary school or not, class attendance, home language (either Afrikaans or English), and the programme for which students were enrolled (Baard *et al.*, 2010).

In another study, Barnes, Dzansi, Wilkinson & Viljoen (2009) conducted a correlation analysis to make inferences. Their study tracked 71 students enrolled in first year accounting at a South African university. Their results found that the most important factors in determining success of students in the first year accounting were university entrance score, matric accounting, matric English, matric first language, class attendance and deep and surface learning approaches. The aforementioned all reported a significant influence on performance in accounting at first year level (Barnes *et al*., 2009).

In their study, Du Plessis, Muller & Prinsloo (2005) examined how several predictors influence the pass rates of first year students in an accounting course and also how these predictors interacted with one another. They did this by extracting the required data from the university student information database and analysed the data by means of two-way frequency tables and chi-square tests. Their study tracked 10 194 students registered for first year accounting at a South African open and distance learning institution. The factors reported as most important in predicting the success of students in the course were motivation (as reflected in the degree programme followed), time management (as reflected in occupational categories of full-time and part-time students), whether the student is repeating the module and the age group of the student (Du Plessis *et al.*, 2005).

Gul and Fong (1993) employed stepwise regression to develop a subset of independent variables that was useful in predicting the accounting examination results of students and a multiple regression model to test seven factors that can affect introductory accounting students' performance. Their study tracked 455 students in the introductory accounting class of a Hong Kong university. They reported that the most important factors in determining success of students in the course were having an English secondary school education, certificate level English grade, personality, being enrolled for a business degree, previous knowledge of accounting, certificate level mathematics grade and self-expectation of examination result (Gul & Fong, 1993).

In their study, Smith, Therry & Whale (2012) also extracted data from a university's student information database and used regression analysis to model the impact of individual factors on accounting performance. The study tracked 325 students who completed a first year accounting course in an Australian university during 2010. They reported age, gender, course of study and first language as being significant predictors of performance (Smith *et al.*, 2012).

From above it can be seen that several international and South African accounting education scholars have examined and identified demographic and educational factors which influence a student's performance in their first year of accounting (Baard *et al*., 2010; Barnes *et al*., 2009; Du Plessis *et al*., 2005; Gul & Fong, 1993; Smith *et al*., 2012). Table 1 provides a summary of these factors and a brief discussion of each follows.

TABLE 1: FACTORS INFLUENCING STUDENT PERFORMANCE IN THEIR FIRST YEAR OF ACCOUNTING

Predictor	Reference
Gender	Baard *et al.* (2010); Barnes *et al.* (2009); Du Plessis *et al.* (2005); Smith *et al.* (2012).
Age	Barnes *et al.* (2009); Du Plessis *et al.* (2005); Smith *et al.* (2012).
Home language	Baard *et al.* (2010); Du Plessis *et al.* (2005); Gul and Fong (1993); Smith *et al.* (2012).
Ethnicity	Baard *et al.* (2010); Joubert, Viljoen and Schall (2013); Negash (2002).
Nationality	Barnes *et al*. (2009); Rankin, Silvester, Vallely and Wyatt (2003:365).
School category	Tho (1994).
Matric performance	Baard *et al.* (2010); Barnes *et al.* (2009); Du Plessis *et al*. (2005); Muller, Prinsloo and Du Plessis (2007).
Matric subject scores	Baard *et al.* (2010); Gul and Fong (1993).
Matric year	Baard *et* al. (2010).
Degree programme	Baard *et al.* (2010); Gul and Fong (1993); Smith *et al.* (2012).
Prior exposure to subject at school	Baard *et al*. (2010); Barnes *et al.* (2009); Du Plessis *et al.* (2005); Muller *et al.* (2007).
Repeating the course	Du Plessis *et al*. (2005); Smith *et al.* (2012).

Class attendance	Baard *et al.* (2010); Barnes *et al.* (2009); Steenkamp, Baard and Frick (2009).
Personality type	Bealing, Staley and Baker (2009); Du Plessis *et al*. (2005); Gul and Fong (1993).
Motivation	Du Plessis *et al.* (2005:690); Eskew and Faley (2008); Muller *et al.* (2007); Steenkamp *et al.* (2009).
Learning approach	Barac (2012); Barnes *et al.* (2009).

Studies have noted the influence of *gender* on performance at first year level in general (Alanzi, 2015; Joubert *et al.*, 2013) as well as on first year accounting in particular (Baard *et al*., 2010; Barnes *et al*., 2009; Du Plessis *et al*., 2005; Smith *et al*., 2012). In their studies, Smith *et al.* (2012:99) and Baard *et al.* (2010:137) found that female students were significantly more successful than male students in introductory accounting, suggesting that male students are most at risk of failure. However, Du Plessis *et al.* (2005:696) found in their study of the performance of first year accounting students at an open and distance learning institution, that male students were more successful than females. Du Plessis et al. (2005:696) suggests that this impact of gender on success may be influenced by the fact that males may be more prepared to seriously pursue careers in the male-dominated accounting profession and the results indicate that the performance of males was best explained by taking school accounting (Du Plessis *et al*., 2005:689). In their 2009 study, Barnes *et al*. (2009:51) found no significant difference in the performances of males and females and that gender had no significant influence on the performance of students in first year accounting.

In the study of Du Plessis *et al*. (2005:694), South African students in the *age* range of 17 to 30 were more likely to pass a first-year accounting distance course than those older than 30 years of age. On the other hand, in their study on first year accounting students at an Australian university, Smith *et al*. (2012:99) reported that students younger than 25 years were more at risk of failure. However, Barnes *et al*. (2009:51) found no significant difference between age and performance in first year financial accounting. Joubert *et al.* (2013:254) also found the association of age with performance in a first year accounting course was significant with an inverse relationship between age and performance in first year accounting. This meant that younger students performed better in first year accounting than older students. Joubert *et al.* (2013:253) explained that a possible reason for the better performance of younger students might be that older students tend to be full-time employees with families and that, because they have more responsibilities, they have less time to study.

Smith *et al.* (2012:96) reported that the variable providing the most prominent differentiation between passing the course and failing the course is *home language*. Students with their first language the same as the language of instruction indicated a significantly higher pass rate compared to those with another first language. These authors found that studying with English as second language makes the student a more at-risk candidate in first year accounting. Similarly, Baard *et al.* (2010:137) contend that the home language of a student being the same as their language of instruction is a significant predictor of academic success in first year accounting. In the study by Baard *et al.* (2010:137), the majority of respondents who specified their home language upon registration to be the same as the language of instruction were more successful in the first year accounting course than those showing a language different to the language of instruction. This led Baard *et al.* (2010:141) to conclude that home language is one of the most important factors in determining success of students in an accounting first year course. Barnes *et al*. (2009:50) indicated that there was a significant positive correlation between the students' performance in their first language (other than English) and their performance in first year accounting. The medium of instruction at the university was not the first language of most of the students in this study. Du Plessis *et al.* (2005:696), however, found language not to be a significant predictor of academic performance in first year accounting.

Both Joubert *et al*. (2013:253-254) and Baard *et al.* (2010:136) found no relationship between *ethnicity* and success in a first year financial accounting course. However, a study by Negash (2002:1-8) revealed that white students score significantly higher grades than their black counterparts in accounting despite the provision of identical lectures, tutorials and learning materials.

Rankin *et al*. (2003:365) investigated the impact of student diversity (in terms of *nationality*) on performance in first year accounting and reported that on average international students studying on campus perform better than local students. This was in contrast to the study of Barnes *et al.* (2009:52), who found that nationality was not a determinant of performance in first year financial accounting. When examining the influence of *school category* on academic performance in first year accounting, Tho (1994:338-339) expected that students who attended schools in urban areas would perform better in the first level tertiary accounting course at university than students from non-urban areas. This, he believed, would be a result of urban areas having educational facilities that are well developed and easily available, in comparison to non-urban areas which lack such facilities. However, his study found that urban/rural residential status exerted no significant influence on introductory accounting performance.

Both Baard *et al.* (2010:138) and Barnes *et al.* (2009:48) reported *Matric performance* to be an important significant predictor of performance in financial accounting at first year level, confirming the view that students with high university entry scores are likely to continue this high achievement at university. Contrary to the above conclusions, Muller *et al*. (2007:29-30) and Du Plessis *et al.* (2005:692) found no significant influence of Matric performance on student success in a first year accounting course in higher education. In their study, Baard *et al.* (2010:138) found that *Matric accounting and mathematics scores* significantly influenced a student's performance in first year financial accounting, while the Matric science score did not significantly influence student performance in first year accounting. This influence of Matric accounting and mathematics scores was confirmed by the findings of Gul and Fong (1993:38) who found that high school exposure to accounting and aptitude in mathematics have positive and significant effects on student performance in introductory accounting courses. Gul and Fong (1993:38) also found certificate level English grade to be a significant variable in predicting academic success in first year accounting. These studies suggest that students' scores in secondary school examinations specifically in language, accounting, mathematics and numeracy (LAMN) have an influence on first year academic performance in general as well as in first year financial accounting.

The year in which a student writes Matric examinations is significant in South Africa as there have been numerous changes in the country's school curricula since 2008 (Baard *et al*., 2010:137). Some of these changes may have resulted in a downward trend of the Matric pass rate since 2008 influencing first year academic performance at tertiary level in general (South African Government News Agency, 2014; SABC: Broadcasting for Total Citizen Empowerment, 2016). After 2008, there were concerns that the results of the National Senior Certificate grade 12 examinations were not very good indicators of the ability of students (Baard *et al*., 2010:132). Jansen as cited in Mashige, Rampersad and Venkatas (2014:561) acknowledged this decline in competency levels of students when he stated that "university lecturers always say that in their experience, students over the years have become weaker even though the matriculation results appear stronger". Although no studies could be found relating Matric year to the performance of accounting at first year level, it is assumed that if the year a student writes Matric influences their performance at university level in general, it would influence their performance in first year accounting.

Baard *et al.* (2010:137) found that the *degree programme* that students followed significantly influenced their success in first year accounting. Students who followed a specialised programme, for example a Bachelor of Commerce Actuarial and Mathematics (91% passed), Management Accounting (85% passed) and Financial Accounting programmes (81% passed), were significantly more successful than the students who followed a Bachelor of Commerce general programme (69% passed). Similarly, in the study of Smith *et al.* (2012:99), the outcome was that students who enrolled in a non-business major were more at risk of failure in the first year of accounting than those who enrolled in a business major. Gul and Fong (1993:39) also found the intention to obtain a business degree to be a significant variable in predicting success in introductory accounting.

In the study of Barnes *et al.* (2009:49), a significant positive relationship between performance in *high school accounting* and performance in introductory accounting at tertiary level was confirmed. The reason for this was believed to be the close correspondence between high school and the first year university curricula, and the foundation provided by high school accounting for the first year accounting course. Baard *et al.* (2010:141) found that students with a background in accounting were more successful in the first year financial accounting module at university than students who did not take accounting as a subject at secondary school. This contradicts the studies done by Muller *et al.* (2007:24-25) and Du Plessis *et al*. (2005:692-694) who found that prior knowledge of accounting does not significantly influence performance in first year accounting at higher education institutions.

The findings of Du Plessis *et al.* (2005:694) were that students who made a *second attempt* at first year accounting at university were more likely to fail, compared with those who had attempted the course for the first time. Similarly, Smith *et al.* (2012:96) found that students who passed the first year accounting course on the first attempt were more successful than those who passed it on a second or later attempt. Barnes *et al.* (2009:50) found *class attendance* to also be positively related to performance in first year accounting. Accounting is taught in a progressive way, with each week's lecture providing a foundation for the next week's lecture. For this reason, missed classes can lead to problems in catching up. Regular class attendance is therefore important for success in first year accounting. Similarly, Steenkamp *et al.* (2009:133) concluded that students who on average attended more classes in financial accounting had a significantly greater chance of success in the module in comparison to students who did not on average attend many classes. However, in a later study, Baard *et al.* (2010:136) found that satisfactory attendance of tutorials did not significantly influence success in introductory accounting. This may be due to the fact that tutorials were compulsory for at-risk students identified after the first and second tests.

Bealing *et al.* (2009:333) found that the *personality type* of a student influences their ability to perform well in an accounting programme, and suggested that students with introverted personalities performed better than extraverted students. Gul and Fong (1993:38) anticipated that the introverted personality type would be more likely to establish a study style necessary for learning accounting. Extraverts who are more sociable and often do not enjoy solitary activities may therefore not perform as well as introverted students when working on accounting problems which require patience, regular practice, and highly concentrated work patterns. However, Gul and Fong (1993:38) found no significant differences in any of the measures comparing extraverts and introverts (Du Plessis *et al*., 2005:688) as the variety of work in the accounting environment requires both personality types.

Steenkamp *et al.* (2009:127) noted in their study comparing lecturers' assumptions with students' perceptions of the factors that influence success in first year accounting, that a lack of *motivation* was one of the main student-related factors perceived to hinder success in first year accounting at university. Eskew and Faley (2008:145) as well as Du Plessis *et al.* (2005:694) reported effort or motivation as being significantly related to student examination performance in a first year financial accounting course at university. Muller *et al.* (2007:25) found that motivation, as reflected in the degree for which a student is registered, emerged time and again as a major factor in predicting success in an introductory accounting course. In terms of *learning approach*, Barac (2012:19-20) and Barnes *et al.* (2009:52) both found that a deep learning approach rather than a surface approach is conducive to academic achievement in first year financial accounting. Barnes *et al.* (2009:52) found a tendency among students to rely more on surface learning than on deep learning in first year accounting. Their finding could be attributed to the notion that students with prior knowledge of accounting are inclined to use more surface approaches or that teaching and assessment methods in first year accounting at university level encourage surface rather than deep learning approaches.

It is clear from the literature review that contradictory evidence is provided in terms of several demographic and educational variables influencing the performance of students in first year accounting. It is against this backdrop that the research hypothesis of this study is formulated.

HYPOTHESIS DEVELOPMENT

The literature has identified several factors as influencing failure, and it is these factors that serve as the independent or predictor variables in the model for predicting first year accounting at-risk students. The accounting semester result will serve as the dependent variable.

Dependent variable

In order to calculate the dependent variables in this study, namely the *R101 semester result*, it is important to clarify the composition of this result. First year accounting at NMMU is assessed by means of two semester tests, a group assignment and concept tests. The two semester tests contribute 40 per cent each towards the 100 per cent semester mark. The remainder of the semester mark is made up of the group assignment contributing five per cent and the concept tests contributing 15 per cent. Only students who obtain a semester mark of at least 35 per cent and meet the other duly performance (DP) requirements of 75 per cent tutorial attendance and 75 per cent assignment hand-in, are allowed access to the June examination. For students who miss one of the two semester tests, a heavier weighting is applied to the examination mark. The semester mark contributes one third, and the examination mark two-thirds of the final first semester accounting mark.

Based on the semester result achieved, participants in this study are classified as being either at-risk or not-at-risk students. The at-risk group refers to students who obtained a semester mark in accounting of less than 60 per cent, while not-at-risk refers to students who achieved greater than 60 per cent as their semester mark in accounting. In order to pass first year accounting, a student must achieve a semester mark of 50 per cent. In this study, in order to avoid a false positive (allowing students to be under the impression that they are doing well when they are actually at risk), 60 per cent will be used rather than the pass mark of 50 per cent to distinguish between the two groups.

Independent (predictor) variables

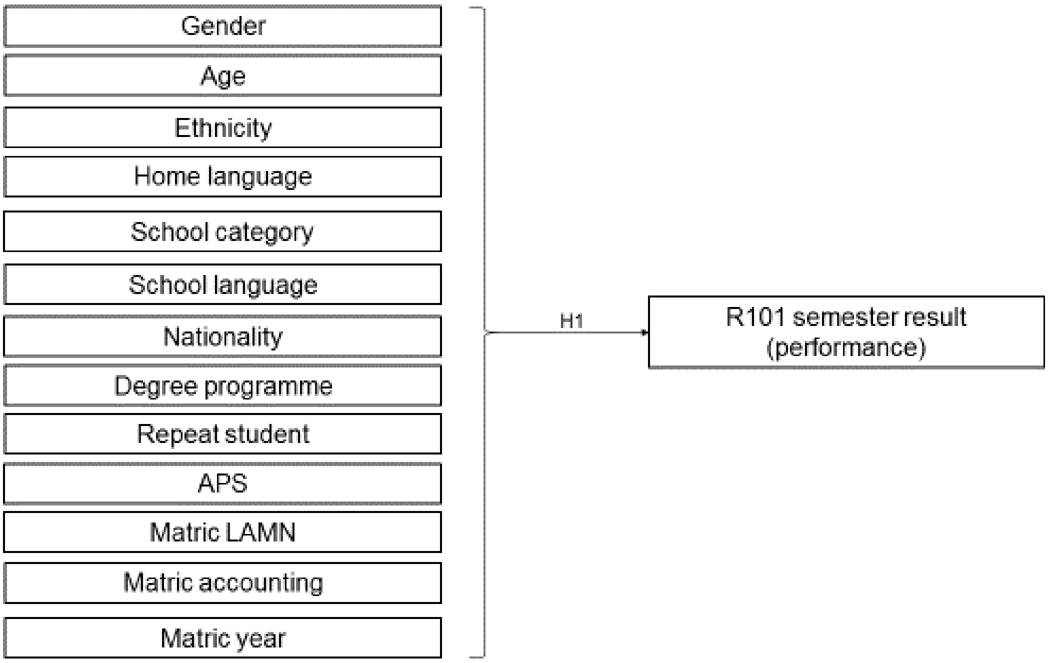
Taking into account previous research findings on the factors that determine the success or failure of students in academic achievement in first year accounting (see Table 1), it was decided to focus this study on several factors commonly found to influence student performance in the first year. Furthermore, selection was determined by the availability of information on the student information database of the School of Accounting and the NMMU student information database. Even though prior literature suggests that class attendance, students' learning approach and personality types influence performance, these factors were not considered because they were not recorded on the student information systems available. Lecture attendance in first year accounting at NMMU is not monitored as a result of large class sizes. Although tutorial attendance is monitored through the year, it was not considered useful for the study as it is cumulative data. It would be necessary to identify at-risk students at the start of the year when they enter the accounting course in order to introduce interventions as early as possible to assist students to succeed in first year accounting.

Against this background, the factors influencing failure at first year level accounting, which serve as the independent variables in this study, are the following: *Gender*, *Age*, *Ethnicity, Home language, School category* (whether urban or rural, model C, non-model C or international), *School language* (language of instruction at school attended), *Nationality, Degree programme* for which the student is registered (which has bearing on the motivation of the student), whether a student is *Repeating the course*, *APS* (admission point score based on Matric results), *Matric LAMN* (a combined score for individual relevant Matric subjects of language, accounting, mathematics and numeracy), whether the student did *Accounting in Matric*, and *Matric year* (the year the student completed Matric).

Hypothesised relationship

The hypothesised relationship subjected to empirical investigation in this study is depicted in Figure 1:

FIGURE 1: PREDICTOR VARIABLES AND PERFORMANCE



* LAMN = language, accounting, mathematics and numeracy

The hypothesised relationship is as follows:

H[1]: A selected subset of the demographic and educational variables investigated in this study (*Gender, Age, Ethnicity, Home language, School category, School language, Nationality, Degree programme, Repeat student, APS, Matric LAMN, Matric accounting, Matric year*) acts as predictor of at-risk R101 students (first year first semester course for students majoring in accounting).

RESEARCH METHODOLOGY

This study adopted a positivistic research paradigm and implemented a quantitative research approach which was deductive and cross-sectional in nature.

Population and sample

For the purpose of this study, the population included all first year students enrolled for first year accounting at NMMU in 2015. First year accounting at NMMU is categorised into several module codes, namely R101, RNC101, R102, RG102 and RNC102. The students doing R101 served as the sample for this study. This sample was selected based on convenience and because this module had the most students registered in comparison to the other modules. The R101 students are also the students most likely to continue with their studies in accounting, and are thus likely to benefit the most from a prediction model.

Data collection

Historical data was collected on which to undertake the quantitative data analysis. This data included the results and demographic information of all students enrolled for first year first semester accounting in 2015. This information was accessed from the School of Accounting's database. Moreover, this data was supplemented with personal data for each student which was obtained from the Information Technology System (ITS) at NMMU. The data obtained from the School of Accounting's database and NMMU's ITS was combined into one database using Microsoft Excel. The coding of the data collected is summarised in Table 2. Using institutional data, as was done in this study, is not uncommon among studies of this nature (Smith *et al*., 2012; Barnes *et al*., 2009; Du Plessis *et al*., 2005).

TABLE 2: CODING OF DATA COLLECTED

Variable	Description
Gender	Female? Yes (1) or No (0)
Age	Age 20-24? Yes (1) or No (0) Age 25+? Yes (1) or No (0)
Ethnicity	Race.Coloured? Yes (1) or No (0) Race.Indian? Yes (1) or No (0) Race.White? Yes (1) or No (0)
Home language	Language.Afr? Yes (1) or No (0) Language.Eng? Yes (1) or No (0) Language.Oth? Yes (1) or No (0)
School category	Urban Non-Model C? Yes (1) or No (0) Rural Model C? Yes (1) or No (0) Urban Model C? Yes (1) or No (0) Overseas School? Yes (1) or No (0)
School language	English school? Yes (1) or No (0)
Nationality	Local student? Yes (1) or No (0)
Degree programme	BCom C2? Yes (1) or No (0) BCom C3? Yes (1) or No (0) BComRat? Yes (1) or No (0)
Repeat student	Repeat? Yes (1) or No (0)
APS	Actual scores captured with the minimum number of marks captured per student being 1 and maximum being 5
Matric LAMN	Actual scores captured and averages determined with the minimum number of marks captured per student being 1 and maximum being 7
Matric accounting	Matric Accounting? Yes (1) or No (0)
Matric year	Matric 2008-2013? Yes (1) or No (0) Matric <2008? Yes (1) or No (0)
Accounting 1 semester result	Actual results captured or imputed

In order to perform the statistical analysis, the following adjustments were made to the data in this study. First, because of the DP requirements – students have to write all semester tests, obtain a semester mark of at least 35 per cent, they must have a 75 per cent tutorial attendance and 75 per cent of assignments must be handed in – some students did not have a June examination mark because they did not obtain DP and were not allowed to write the examination. In order not to lose the data of these students, most of whom had poor results, a regression equation was used to predict or impute examination marks based on the known semester mark. Second, in order to use mathematics, accounting and language marks from school, regardless of whether a student did mathematics (nationally or internationally) or mathematical literacy and regardless of which language taken as first language or second language, the marks for these subjects were combined into an average mark referred to as Matric LAMN.

Trustworthiness and ethical considerations

Trustworthiness refers to concerns about the extent to which research is to be trusted and believed (Struwig & Stead, 2013:136). In the research process, "rigour" means that the researcher uses rigorous, precise and thorough methods to collect, record and analyse data. The researcher also takes steps to remain as objective as possible throughout the project (Leedy & Ormrod, 2001:164). By increasing rigour, the issues of validity and reliability were addressed in this study.

Recently, researchers (Struwig & Stead, 2013:137; Leedy & Ormrod, 2001:106) have suggested that words such as "credibility, dependability, confirmability, verification and transferability" be used instead of the term "validity". Ary, Jacobs, Sorensen and Walker (2013:531–532) assert that credibility involves how well the researcher has established confidence in the findings based on the research design, participants and context. Confidence in the data for this study was established as data was obtained from the NMMU ITS, which was downloaded from the Department of Education's database and which one would assume has been captured correctly. Furthermore, each student's details appear on their student record, which is made available to each student when they register for their courses at the beginning of a year. Each student has the opportunity to confirm the accuracy of the data captured or to have any errors corrected.

Data available from the student information database of the School of Accounting is known to be accurate and credible as it is made available to students throughout the semester to confirm its accuracy. Demographic data is confirmed by students at the beginning of the year. Semester test results are published during the semester, and students are asked to confirm these published semester test results against the test scripts which are handed back to them with a marking memorandum. DP performance is published at the end of each semester as per university policy, giving students sufficient time to query the accuracy of their captured results. Semester results are made available to students at the end of each semester. Students also have an opportunity to view their examination scripts if they are uncertain of the accuracy of their examination and semester results.

Because all the data used in this study was secondary in nature (as obtained from the School of Accounting's database and NMMU's ITS), it was possible for it all to be meticulously combined into one Excel database. This was done by a person other than the researcher, with excellent data capturing skills and with a reputation for accuracy in their work. To ensure that the data used for the statistical analysis was captured into the database correctly, it was verified during the capturing process by the data capturer, and again after the data had been captured, by both the data capturer and the researcher.

Ethical considerations are also of great concern for all researchers. Given the nature of the study, ethics approval was obtained via the normal channels of the NMMU.

Statistical analyses

The data was analysed by means of descriptive statistics and a discriminant analysis using Statistica. Discriminant analysis is a classification technique which can be used to classify respondents into groups, where the groups are defined by the categories of the dependent variable (Maree, 2016:283). Undertaking the discriminant analysis in the study involved three steps. These steps were concerned with first identifying the predictor variables to be included in the discriminant analysis functions (formula) and second, with calculating the coefficients for these discriminant analysis classification functions (the at-risk and the not-at-risk functions). The last step involved testing the accuracy of these functions by using the actual data collected from the R101 sample group of 2015.

In the first step, namely identifying the predictor variables to be included in the discriminant analysis functions (formula), all of the predictor (independent) variables were entered in a forward stepwise manner when calculating the discriminant analysis function. This analysis was done to establish the best combination of predictor variables in discriminating between at-risk and not-at-risk students. As such, the analysis identified the predictor variables that had the least power to discriminate between the two groups and removed variables from the function if a better model fit would result. This process continued until the best model fit was obtained.

The second step of the discriminant analysis involves calculating the coefficients for the discriminant analysis classification functions. These coefficients allow for the practical application of the functions. As with any other multivariate technique the discriminant score for each classification function in the analysis is the summation of the values obtained by multiplying each independent variable by its coefficient (Hair *et al.*, 2006:274). Two functions exist: one to predict at-risk and the other to predict not-at-risk students, namely:

At-risk students: $F_A = B_{0A} + B_{1A}(X_1) + B_{2A}(X_2) + \ldots. + B_{KA}(X_K)$

Not-at-risk students: $F_B = B_{0B} + B_{1B}(X_1) + B_{2B}(X_2) + \ldots. + B_{KB}(X_K)$

Where B_0 is the constant, B_1 is the coefficient associated with X_1, and X_1 is the predictor variable and so forth for K number of predictor variables.

The coefficients for the classification functions used to predict whether a student falls into the at-risk group or the not-at-risk group are then reported. In the case of this study, the predictor variables are measured on different scales. For example, Matric accounting is measured on a scale of 0 to 100 whereas gender is measured on a scale of 0 to 1.

Therefore, comparisons between coefficients cannot be made. However, the larger the classification function coefficient is in absolute terms for a specific predictor variable, the larger the predictor variable's unique contribution to the discrimination specified by the discriminant function (Statsoft, 2009). Furthermore, a positive coefficient indicates that two variables systematically vary in the same direction (Hair *et al*., 1995:131). For example, a positive coefficient adds to the likelihood of an at-risk prediction whereas a negative coefficient reduces the likelihood of an at-risk prediction. The higher the value of the coefficient in predicting at-risk students compared to not-at-risk students, the more weight that predictor variable adds in predicting at-risk students as opposed to not-at-risk students.

The final step in the discriminant analysis involved testing the accuracy of the functions in predicting at-risk and not-at-risk students by using the actual data collected from the R101 sample group of 2015. The actual data collected from the 2015 R101 sample group was input into the discriminant classification functions developed in step 2 and students were classified as falling into either the at-risk or not-at-risk groups.

The extent to which the function (model) demonstrates practical significance was established by calculating Press's Q. Press's Q statistic is a measure of the discriminatory power of the classification matrix when compared with the results expected from a chance model (Hair, Black, Babin & Anderson, 2010:338). The ability of the function (model) is statistically significantly better than would be expected by chance when the Press's Q value is greater than the threshold value (Press's Q critical value) (Hair, Black, Babin & Anderson, 2006:324). The ability to accurately predict is also practically significantly better than chance when the percentage being correctly classified is greater than the practical significance criterion (Cps) value (Hair *et al*., 2006:324). Cps gives the percentage correctly classified if one classifies all the sample into the group with the largest proportion (Hair *et al*., 2006:324).

EMPIRICAL RESULTS

Sample description

From Table 3 it can be seen that the sample group consisted of an equal number of male (50%) and female (50%) students. This sample group was predominantly in the age category of less than 20 years (53%) or between 20 to 24 years of age (41%). Only six per cent were older than 25 years of age. The majority of the students were black (62%), followed by white (25%) students. The remaining students were coloured (12%) and Indian (1%). The majority of the students spoke an African language (55%) as their home language, whereas the remaining students spoke English (32%) or Afrikaans (12%) at home. The vast majority (92%) of the students registered for R101 were South African, while only eight per cent were of another nationality.

TABLE 3: SAMPLE DEMOGRAPHIC DETAILS

Gender	**Frequency**	**Percentage**
Female	239	50%
Male	243	50%
Total	**482**	**100%**
Age	**Frequency**	**Percentage**

<20	247	53%

TABLE 3: SAMPLE DEMOGRAPHIC DETAILS (continued)

20-24	192	41%
25+	28	6%
Total	**467**	**100%**
Ethnicity	**Frequency**	**Percentage**
Black	298	62%
Coloured	58	12%
Indian	4	1%
White	122	25%
Total	**482**	**100%**
Language	**Frequency**	**Percentage**
African	266	55%
Afrikaans	60	12%
English	155	32%
Other	1	0%
Total	**482**	**100%**
Nationality	**Frequency**	**Percentage**
South African (No)	37	8%
South African (Yes)	445	92%
Total	**482**	**100%**

Information relating to the educational background of the sample group is presented in Table 4. Apart from the 31 students (6%), attending overseas schools 94 per cent of the R101 students attended school locally. Most (44%) attended urban model C schools, followed by rural non-model C schools (20%), rural model C schools (18%) and finally urban non-model C schools (11%). Fifty-one per cent of this sample group attended a school where instruction was in English, whereas 49 per cent attended schools where the language of instruction was not English. Fifty-seven per cent of the R101 students of 2015 completed their Matric year in 2014, followed by those having completed their Matric year between 2008 and 2013 (39%), and those completing Matric prior to 2008 (4%).

TABLE 4: SAMPLE EDUCATIONAL BACKGROUND

School category	Frequency	Percentage
Rural Non-Model C	94	20%
Urban Non-Model C	54	11%
Rural Model C	88	18%
Urban Model C	211	44%
Overseas	31	6%

Total	**478**	**100%**
English school	**Frequency**	**Percentage**
No	233	49%
Yes	245	51%
Total	**478**	**100%**
Matric year	**Frequency**	**Percentage**
2014	275	57%
2008-2013	186	39%
<2008	21	4%
Total	**482**	**100%**
Qualification	**Frequency**	**Percentage**
BCom (C3: Chartered Accounting)	197	41%
BComRat (Four-year Chartered Accounting)	36	7%
BCom (C2: General Accounting)	104	22%
Other	145	30%
Total	**482**	**100%**
Matric accounting	**Frequency**	**Percentage**
No	70	17%
Yes	353	83%
Total	**423**	**100%**
Repeating first year accounting	**Frequency**	**Percentage**
No	397	82%
Yes	85	18%
Total	**482**	**100%**

41 per cent of these students were registered for the three-year chartered accounting qualification, and seven per cent were registered for the four-year chartered accounting qualification. 22 per cent were registered for the general accounting programme while 30 per cent were registered for a qualification not majoring in accounting. The vast majority (83%) of students had done accounting as a subject in their Matric year and were attempting the R101 module for the first time in 2015 (82%). Only 18 per cent were repeating first year accounting at university level.

Included in the data gathered from respondents was their *Matric LAMN* and their *APS*. These educational background variables were continuous in nature and thus descriptive statistics instead of frequency distributions were established. From Table 5, it can be seen that the R101 sample group for 2015 reported a mean score of 5.43 for Matric LAMN (7 being the maximum score) with a standard deviation of 0.82 whereas, for the APS, a mean score of 38.89 (49 being the maximum score) and a standard deviation of 5.27 was reported.

TABLE 5: MATRIC LAMN AND APS

	n	Mean	S.D.	Min.	Quart.1	Median	Quart.3	Max.
Matric LAMN	423	**5.43**	**0.82**	3.50	4.83	5.50	6.00	7.67
APS	477	**38.89**	**5.27**	16.00	36.00	39.00	42.00	55.00

Discriminant analysis

As mentioned, the discriminant analysis was undertaken in three steps. Step 1 involved identifying the predictor variables to be included in the discriminant analysis functions. The model (function) derived from the discriminant analysis done on the R101 sample group of 2015 was found to be highly significant (p < .0005) and therefore using this function to discriminate between at-risk and not-at-risk students is a significant improvement on the students falling into either group as a result of chance. As such, the model statistics (F (14.392); p < .005) show that the differences observed between the at-risk and the not-at-risk R101 students are not by chance but as a result of the combination of predictor variables that make up the discriminatory function. The list of predictor variables found to discriminate between at-risk and not-at-risk R101 students are reported in Table 6. Predictor variables with a p-value of between .05 and .10 are reportable, while those with p-values of less than .05 are both reportable and significant.

Based on the discriminant analysis (see Table 6), the predictor variables with p-values less than .05 were identified as playing a greater role in the R101 discriminatory function (model) or, stated differently, as playing a greater role in distinguishing between at-risk and not-at-risk R101 students. These variables were *Matric LAMN* (p-value = .022), *Matric accounting* (p-value = .000), *BCom C3* (degree programme) (p-value = .000), *Age* (p-value = .014), *Afrikaans language* (p-value = .000), *English school* (p-value = .001), *Gender female* (p-value = .002), *APS* (p-value = .017) and *English language* (p-value = .034). Even though the other predictor variables reported p-values of greater than .05, they added significantly to the explanatory power of the model as a whole and were thus retained in the discriminatory function. The only predictor variable that was not retained in the model was *Nationality. Nationality* was excluded in the final data set due to the grading system for international students in their final year of secondary school not being comparable to South African students.

Furthermore, the larger the F-remove value, the greater the contribution of the predictor variable to the discriminatory function and, as such, in discriminating between the two groups. Based on the F-remove values (see Table 6) the predictor variables *Matric accounting* (F-remove = 18.78), *BCom C3* (degree programme) (F-remove = 16.05), *Afrikaans language* (F-remove = 15.59), and *English school* (F-remove = 10.47) were the predictor variables contributing the most to the discriminatory function.

TABLE 6: DISCRIMINANT ANALYSIS SUMMARY

	Wilks' Lambda = .593; F (14.392) = 2; p < .0005

Independent predictor variables	**Wilks' Lambda**	**Partial Lambda**	**F-remove -1 392**	**p-value**	**Toler.**	**1-Toler. (R-Sqr.)**
Matr.LAMN	0.601	0.987	5.32	**.022**	0.278	0.722
Matr.Accounting	0.621	0.954	**18.78**	**.000**	0.961	0.039
Race.White	0.594	0.998	0.90	.343	0.148	0.852
BCom C3	0.617	0.961	**16.05**	**.000**	0.534	0.466
Age 20-24	0.602	0.985	6.09	**.014**	0.832	0.168
Lang.Afr	0.617	0.962	**15.59**	**.000**	0.193	0.807
English School	0.609	0.974	**10.47**	**.001**	0.493	0.507
Female	0.608	0.975	9.88	**.002**	0.856	0.144
APS	0.602	0.986	5.72	**.017**	0.269	0.731
Lang.Eng	0.600	0.989	4.51	**.034**	0.150	0.850
Urban Model C	0.597	0.994	2.55	.111	0.601	0.399
BCom C2	0.597	0.993	2.90	.089	0.645	0.355
BComRat	0.596	0.994	2.21	.138	0.723	0.277
Race.Coloured	0.595	0.997	1.36	.244	0.254	0.746

Step 2 involved calculating the coefficients for the discriminant analysis classification functions. These coefficients for the classification functions which are used to predict whether a student falls into the at-risk group or not-at-risk group, are reported in Table 7. As explained earlier, the larger the coefficient, the greater the contribution of the predictor variable to discriminating between the two groups. Although the coefficients vary for the functions predicting at-risk and the not-at-risk R101 students, from Table 7 it can be seen that the same predictor variables carry the most weight in both these functions, namely *Matric accounting, Age 20–24, Afrikaans language, English school* and *BCom C2.*

TABLE 7: COEFFICIENTS FOR DISCRIMINANT ANALYSIS CLASSIFICATION FUNCTIONS

Independent/predictor variables	**At-risk (score for R101 < 60)**	**Not-at-risk (score for R101 > 60)**
Matr.LAMN	-2.610	-1.802
Matr.Accounting	**6.389**	**8.028**
Race.White	-2.505	-3.249
BCom C3	0.951	2.441
Age 20-24	**5.742**	**4.999**
Lang.Afr	**3.260**	**6.696**
English School	**7.735**	**8.936**

Female	-2.664	-3.546
APS	3.185	3.334
Lang.Eng	-0.787	0.811
Urban Model C	3.509	2.969
BCom C2	**6.692**	**7.383**
BComRat	-6.567	-5.751
Race.Coloured	2.054	1.113
Constant	-60.603	-73.778

Step 3, the final step in the discriminant analysis, involved testing the accuracy of the functions in predicting at-risk and not-at-risk students by using the actual data collected from the R101 sample group. In Table 8, the results of the discriminant analysis classification matrix are presented. From Table 8 it can be seen that the at-risk function accurately predicted 83.4 per cent of at-risk students as falling into the at-risk group, whereas only 16.4 per cent of the R101 students were not accurately predicted. The not-at-risk function accurately predicted 77.2 per cent of not-at-risk students as falling into the not-at-risk group. In this case, 22.8 per cent of the not-at-risk students were not accurately predicted as being not-at-risk students. The prediction value of the functions as a whole is high with 80.6 per cent of students being accurately classified into either the at-risk or the not-at-risk group. The R101 model can be seen as good (effective) in that it is a better predictor of R101 at-risk students than not-at-risk students.

TABLE 8: DISCRIMINANT ANALYSIS CLASSIFICATION MATRIX

Observed group	Correctly classified	Predicted group		Actual number
		At-risk	Not-at-risk	
At-risk	83.4%	**186**	37	223
Not at-risk	77.2%	42	**142**	184
Total	**80.6%**	**228**	**179**	**407**

The findings based on the R101 sample group for 2015 show that by using the prediction functions resulting from the discriminant analysis, the ability to predict students as being either at-risk or not-at-risk, is statistically significantly better than chance because the Press's Q value of 152.34 is much greater than the threshold value (Press's Q critical value) of 6.63 (Chi^2 d.f. = 1 and p = .01). The ability to accurately predict is also practically significantly better than chance, because 80.6 per cent being correctly classified is greater than a Cps value of 88.5 per cent. Cps provides the percentage correctly classified if one classifies the whole sample into the group with the largest proportion (Hair *et al*., 2006:324).

Against this background, support is found for the following hypothesis:

H^1: A selected subset of the demographic and educational variables investigated in this study (*Gender, Age, Ethnicity, Home language, School category, School language,* *Nationality, Degree programme, Repeat student, APS, Matric LAMN, Matric Accounting, Matric year*) acts as predictor of at-risk R101 students (first year first semester course for students majoring in accounting).

DISCUSSION, IMPLICATIONS AND RECOMMENDATIONS

The primary objective of this study was to develop a predictive model capable of identifying students at risk of failure in first year accounting that can serve as an early warning system for identifying at-risk first year accounting students at NMMU. The results of the study show that the correlation between the predictor variables, namely *Matric LAMN, APS, Matric accounting* and *Degree programme,* and the dependent variable (*R101 actual score*) are both statistically and practically significant. The predictor variables *Ethnicity* and *Gender* reported no significant correlations with the dependent variable. The correlations between the remaining predictor variables and the dependent variable were statistically but not practically significant.

In the process of identifying the predictor variables to be included in the discriminant analysis functions, the model (function) derived from the R101 sample group of 2015 was found to be highly significant. All the predictor variables originally included in the model added significantly to the explanatory power of the model as a whole, except for *Nationality*. Based on the discriminant analysis the predictor variables, *Matric accounting*, *Degree programme (BCom C3*), *Afrikaans language*, and *English school,* were identified as contributing the most to the discriminatory function.

When calculating the coefficients for the discriminant analysis classification function the predictor variables, namely *Matric accounting, Age 20–24, Afrikaans language, English school* and *BCom C2,* were found to carry the most weight in both these functions. When testing the accuracy of the functions in predicting at-risk and not-at-risk students, the results of the discriminant analysis classification matrix showed that the at-risk function accurately predicted 83.4 per cent of at-risk students as falling into the at-risk group, and the not-at-risk function accurately predicted 77.2 per cent of not-at-risk students as falling into the not-at-risk group. As such, the model can be seen as effective in that it is a better predictor of R101 at-risk than not-at-risk students. The prediction value of the functions as a whole is high, with 80.6 per cent of students being accurately classified into either the at-risk or the not-at-risk group. The ability to accurately predict was also practically significant.

This study has developed a predictive model that can be used to identify individual first year at-risk students in accounting at NMMU when they first enter the first year accounting module. Based on the results of this study an Excel spreadsheet will be designed using the discriminant classification formula. First year accounting lecturers will be able to use this Excel spreadsheet to input the nine statistically significant predictor variables of all students registered for R101 and upon calculation the formula will identify those that are at-risk or those that are not-at-risk. Upon identification, additional interventions can be undertaken by lecturers or university support services among students identified as high-risk students. Identifying at-risk students when they first enter the first year accounting course is vitally important as it will allow sufficient time for the early delivery of targeted interventions and support services, while success is still possible (Jia, 2014:3; Lewis & Lewis, 2007:32). Such interventions and support may provide these students with a means of overcoming their challenges.

The findings relating to language and having done Matric accounting are of particular interest in this study. Having attended a school where the instruction language is English carried the most weight in predicting both at-risk and not-at-risk students. This finding highlights the importance of the language of instruction at school level. Many students attend schools where the language of instruction is different from the language of instruction that they encounter at university. As a result, the student is not only entering a new, unfamiliar learning environment, but is also expected to deal with this environment in a language of instruction that was not encountered at school level. Students from non-English schools should be encouraged to make use of all the support offered by universities in terms of reading, writing and comprehending English. Lecturers of accounting should recommend accounting dictionaries, and provide opportunities for students to identify and summarise unfamiliar terminology during contact sessions, as well as by means of online self-assessments. The possibility of making online language programmes available to assist students should also be investigated. Universities as a whole should continuously strive to improve their language policy, their entrance requirements and language support, so that students from non-English speaking schools are not at a disadvantage while undertaking tertiary studies.

The findings of this study also highlight the importance of having done Matric accounting at school. Having done accounting at Matric level also carried a substantial weight in predicting both at-risk and not-at-risk students. Students with the intention to follow a career in accounting should be counselled appropriately at school level to ensure correct subject choices are made. Those who specify entrance requirements for universities should take cognisance of this finding, and consider including Matric accounting as a prerequisite for entrance into programmes with accounting majors. Lecturers at universities could also offer support in the form of an introductory accounting course prior to the commencement of the academic year, or an academic support programme that runs concurrently with the lecturing programme. In this way, students with poor Matric accounting results, or students without Matric accounting, could be offered the support they need.

Accounting is referred to as the language of business and has many terms and concepts specific to the field. Students who have never been exposed to accounting as a school subject and who have attended non-English schools, face the additional challenge of not only mastering a new subject but also a new language.

The results of this study also indicate that the age of the student, being Afrikaans-speaking and following a certain degree programme carry significant weight in predicting both at-risk and not-at-risk students. These findings could be attributed to the motivation levels associated with life-stage, career choice and cultural background. However, explanations and recommendations for these findings fell outside the ambit of this study.

LIMITATIONS AND FUTURE RESEARCH

The study has several limitations that need to be highlighted. The literature study revealed that many factors influence the academic success or failure of students at first year level in general, and in first year accounting in particular. However, for the purpose of this study, only certain factors were considered. The factors selected were based on literature support and the ability to access the necessary information. Factors relating to motivation and personality, for example, were not included and these could play a significant role in predicting academic success.

The data collected to develop the model was from one group of first year accounting students, and from NMMU only. As such, the findings cannot be generalised to the entire first year accounting student population. Future studies should include other accounting modules at both NMMU and other universities throughout South Africa to establish whether predictor variables vary across student groups. Future studies should also strive to improve the model by taking the next cohort of accounting first year students' results and testing the accuracy of the model developed based on 2015 data. In this way, the model can continuously be refined and improved. The model that has been developed in this study could also possibly be used in future research attempting to predict at-risk students in other subjects such as management and law. The development of a comprehensive, institution-wide, early warning intervention system for at-risk students would be invaluable, not only to NMMU but also to universities countrywide.

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EDU008 **ACCOUNTING STUDENT'S MOTIVATION IN LIGHT OF THE SELF-DETERMINATION THEORY: A CASE STUDY OF A TOWNSHIP CAMPUS**

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ABSTRACT:
The main objective of this study is to evaluate the self-motivation of accounting students at a township campus in light of the Self-Determination Theory (SDT). The shortage of black accountants in South Africa remains an alarming controversy. To close this racial gap, township universities are required to take a close look at what is required to improve the success rate of black accounting students. Among accounting students, motivation has also been found to be significant in influencing their performance. The SDT offers a method to motivate people to excel and thrive. Motivation in the classroom can only be explored and encouraged once we have understood and evaluated students' motivational levels, in particular those of accounting students at township universities. The research was mainly quantitative in its approach, with a positivist underpinning. In addition to the review of the literature on the development of the SDT model, primary data was collected from students registered in an accounting course at a township campus by means of a questionnaire. The findings of this study may make a contribution to the teaching of accounting, as they highlight the significance of the educator understanding motivational processes and their consequences in the classroom. The results off the study show that students may have been mainly extrinsically motivated, as they indicated more introjected motivation and integrated motivation according to the SDT continuum.

Key words: Accounting students, black accountants shortage, self-motivation, self-determination theory, township campus

Introduction

The accounting profession, accountants and academic scholars will probably encounter turmoil is the next 25 years (Guthrie and Parker, 2016). The intensely networked and interdisciplinary world of accounting will be disrupting the traditional and highly valued role of accounting (Guthrie and Parker, 2016). Globalisation, developing technologies, novel problems and a rapidly changing knowledge base are already confronting accounting graduates at the workplace (Becker, 2013). The dynamic nature and intricacies of the business world have made it more and more imperative for universities to equip graduate students with a set of learning skills as well as content knowledge (Becker, 2013). The content knowledge attained by students in universities will probably become outdated quickly, and it is imperative that universities and accounting programmes specifically respond to these environmental changes (Becker, 2013).

South Africa is not immune to these global environmental changes. An additional challenge for the local accounting profession is that it also still has to transform its demographic profile. There is still an alarming shortage of black accountants in South Africa (Sadler and Erasmus, 2014). The processes of closure on the basis of race in the South African accounting profession are still prevalent (Barac, 2015). Post-apartheid South Africa must address a legacy of low economic growth, a high poverty rate and high unemployment. Adding to the complexities of the labour market are factors where race is a determinant of employment inequality (Barac, 2015).

A large concern at higher education institutions in South Africa and worldwide is the high failure rate of first-year accounting students (Barnes, Dzansi, Wilkinson and Viljoen, 2006). Universities, especially those in the townships, need to take a hard look at why black students fail accounting courses and what should be done to improve their success rate (Sadler and Erasmus, 2014). Self-regulated learning, self-discipline and effort are substantial factors that determine the academic success of students at university (Sadler and Erasmus, 2014). Motivation has been found to be positively associated with academic performance (Barnes *et* al., 2006). Fostering self-regulated learning in black students and as well as intensive academic support would assist black students to enter the restricted profession (Barac, 2015).

Smith (2001) observed that because of the profession’s rapid changes, it is impossible for educators to entirely prepare graduates to be accountants; educators should prepare graduates to become accounting professionals by equipping them with lifelong learning skills. This is reiterated by Becker (2013), who states that one such step would be to develop lifelong learners who can “maintain competency”, in their respective professions. “How-to-learn” skills are essential for lifelong learning, which is the focus of self-regulated learning (Becker, 2013). In today's workplaces, self-regulated learning is a vital competency.

Self-regulated learning is becoming increasingly important due to socio-political and technological changes sustaining new means of knowledge creation in business (Littlejohn, Milligan and Margaryan, 2011). Self-regulated learning can be defined as “self-regulated thoughts, feelings and actions that are planned and cyclically adapted to the attainment of personal goals” (Zimmerman, 2005 in Littlejohn *et* al., 2011:227). Smith (2000) defined the goal of self-regulated learning as “updating skills, acquiring new knowledge, and solving new problems throughout life” (Becker, 2013:437). Rather than receiving knowledge passively from external sources, students are seen as active participants in their own learning (Becker, 2013).

Mooi (2006) states that the student's self-motivation to learn is an essential element of self-regulated learning and that self-motivation is a core concept of self-regulated learning. Motivation determines how students work towards their goals (Ahmad, Ananathraman and Hishamuddin, 2011). Motivation is defined as the objective to attain knowledge or a certain goal (Ahmad *et* al., 2011). The enjoyment of an activity is increased by motivation, which consequently increases positive behaviour towards the activity (Ahmad *et* al., 2011). A student's positive attitude towards a subject was found to have a direct influence on their achievement (Ahmad *et* al., 2011). Among accounting students, motivation has also been found to be significant in influencing their performance (Ahmad *et* al., 2011). In the teaching and learning process, the motivation of students is considered a stimulating energy infusing all levels of education, both in the time taken by students to study as well as their academic performance and achievements, and contributes significantly to the achievement of immediate satisfaction in their lives (Miranda, Leal & Carmo, 2013). Miranda *et* al. (2013:163) stated that motivation is "a psychological process in which personality traits (e.g. motives, reasons, skills interests, expectations, and future perspectives) interact with perceived environmental characteristics", showing that student motivation can affect changes within the students themselves.

The Self-Determination Theory (SDT) principles state that the motivation of individuals vary and are established and steered by contexts supporting psychological needs that reveal themselves in different ways, making students' motivation to learn "a complex, multi-determined phenomenon, which can only be inferred by observing behaviour, either in real performance situations or by self-reporting" (Miranda *et* al., 2013:163). Deci and Ryan (2002), Kember *et* al., (1997) and Tigwell and Prosser (1991) show that motivation for learning is an important predictor of students' learning outcomes and competencies (Arquero, Fernàndez-Polvillo, Hassals and Joyce, 2013). Mooi (2006) mentions the need to investigate the impact of student characteristics on self-motivation and how it correlates with performance.

Beneficial notions and practical methods for effective teaching have been documented in numerous research studies (Dahl and Smimou, 2011). These authors believed that the interaction between students' intrinsic and extrinsic motivational alignments as well as alleged teaching quality had not been completely studied. Present literature neglects the discussion of how, or whether, these alignments can be nurtured and heightened in the ongoing effort to promulgate effective teaching (Dahl and Smimou, 2011). Since earlier research on student motivational orientations has been documented, capturing and recognising present thoughts on the topic and examining student perceptions would be very beneficial (Dahl and Smimou, 2011). Miranda *et* al., 2013, found that insufficient research has been conducted on academic motivation in higher education. Students showed a gap in knowing and understanding styles of behaviour regulation. Eccentricities that should be considered in teaching and learning, especially in accounting, have been indicated in particular by this gap (Miranda *et* al., 2013).

In South Africa, very little recent research has been conducted on academic motivation in higher education. Motivation can only be explored and encouraged in the classroom once we have understood and evaluated students' motivational levels, especially those of accounting students at South African township universities. Universities need not be reminded of the significance of the accounting profession in the South African economy or how important it is to address the types of inequalities that may exist (Barnes *et* al., 2006). Local universities need to go beyond the traditional supply notion of producing market-ready and competent graduates. Efforts must be made to reduce employment inequality and maximise black students' success (Barac, 2015).

To achieve a more balanced intellectual development of accounting graduates, we need to promote self-regulated learning in the accounting curriculum by arousing and sustaining the self-motivation of our students. And, to enhance universities' reputation, they need to develop students with high self-motivation so as to produce high-quality graduates (Subramaniam and Freudenburg, 2007).

The main objective of this study is to evaluate the self-motivation of accounting students at a township campus to be tested by means of the Self-Determination Theory. The study aims to achieve the following research objective:

to determine the types and levels of academic motivation affecting accounting students at a township campus, in light of the SDT.

The importance of the proposed research lies in its empirical contribution to recognising the factors that might encourage or jeopardise the motivation of accounting students at a township campus. The shortage of black accountants in South Africa is still an alarming controversy (Sadler and Erasmus, 2014). To bridge this racial gap, township universities are required to take a hard look at what is required to improve the success rate of black accounting students (Sadler and Erasmus, 2014).

This study could make a contribution to the teaching of accounting. The findings will highlight the significance of the educator understanding motivational processes and their consequences in the classroom. The issue of black students' academic preparation in accounting is critical, not only for the students' immediate success in completing their course, but also later in their chosen fields of expertise and achievement in business specialisation (Sadler and Erasmus, 2014). Understanding the students' motivation means that educators and institutions can act to arouse the students and sustain motivation levels all throughout an accounting programme (Miranda *et* al., 2013).

The research was mainly quantitative in its approach. It had a positivist underpinning, as it was based on the broad premise that an ideal norm or standard exists against which the self-motivation of students can be gauged. The first step in the research was a detailed literature review carried out to establish the concepts of the theoretical constructs that were used in the research. The outcome of the literature review serves as a theoretical underpinning for the development of the proposed SDT model. In addition to the literature review, primary data for the development of the SDT model was collected by means of a questionnaire. Data was collected from students registered for an accounting course at the Tshwane University of Technology (TUT), Ga-Rankuwa campus. This questionnaire was a self-regulation questionnaire which was downloaded from the SDT website.

Training of black accounting students in South African Townships

A major contribution to the racially unequal representation in the South African accounting profession is the education systems' imbalances. The transformation of universities has been ongoing since 1994, but it has since been realised that it will take many more years to correct (Barac, 2015). With the merger of higher education institutions post 1994, small institutions were incorporated and merged into larger institutions and renamed. Historically black institutions were ill-equipped to become viable and efficient higher education institutions (Mouton, Louw, and Strydom, 2013).

South Africa's first 10 years of democracy produced The Tshwane University of Technology (TUT). This university was established by the merger of the former Technikon North Gauteng, Technikon North-West and Technikon Pretoria on 1 January 2004. The South African institutional designation of "technikon" was abandoned in preference of the globally accepted "university of technology" when the merger occurred (Tshwane University of Technology, 2016). These institutions were merged because of they were a similar type of institution but the fact that historically black and historically white institutions were brought together brought in political dynamics (Tyobeka and van Staden). The TUT merger saw three fundamentally different institutions brought together, which made the merger unequal (Mouton *et* al., 2013). The infrastructure and service delivery at the township teaching and learning sites was poor. Staff and students expected immediate parity across all campuses given that the merger was meant to bring about equity but with more than a decade that's passed since the merger, there are still discrepancies in resource allocation and infrastructure development at the township campuses (Mouton *et* al., 2013).

In South Africa, the term township refers to the underdeveloped urban living areas that, from the late 19th century until the end of apartheid, were reserved for non-white residents, namely Indians, Blacks and Coloureds. Townships were built on the periphery of towns and cities. The townships that were established in Pretoria for black people during apartheid are Soshanguve, Mabopane, Attridgeville, Saulsville, Ga-Rankuwa, Mamelodi and Hammanskraal (Wikipedia, 2016).Technikon North-West was situated in Ga-Rankuwa township, North-West of Pretoria. This campus was a historically black institution established under apartheid as a separate institution for black students. TUT Ga-Rankuwa campus currently seats and manages one faculty; The Faculty of Economics and Finance; and five departments at this campus (Tshwane University of Technology 2016).

Research done by South African Institute of Chartered Accountants (SAICA) estimates that South Africa's accounting sector requires over 22 000 qualified accountants at various levels in order to bridge the existing skills shortage in the profession (SAICA). The research revealed that over 16 000 vacancies exist for National Qualifications Framework (NQF) level 3 to NQF level 6 accountants in business and government specifically, in both the financial and non-financial services sectors. These levels denote accounting professionals from entry level to below chartered accountant level (SAICA).

According to the South African Qualifications Authority (SAQA), a national higher certificate is at a NQF level 5 and a diploma at NQF level 6. The National Qualifications Framework Act 67 of 2008 provides for the NQF. The NQF is a comprehensive system, approved by the Minister of Higher Education and Training, for the classification, registration and publication of articulated and quality-assured national qualifications and part-qualifications. The South

African NQF is a single integrated system comprising three co-ordinated qualifications Sub-Frameworks for General and further Education and Training, Higher Education and Trades and Occupations (SAQA).

One of the departments seating at TUT Ga-Rankuwa campus is the Department of Accounting. There are two qualification programmes offered to undergraduate students in this department; National Higher Certificate (NHC): Accountancy and a National Diploma (ND) Accounting. The vacancies in the accounting sector may be bridged by the supply of accounting graduates from TUT Ga-Rankuwa campus. This would also resolve the issue of the shortage of black accountants as a large majority of the students at this campus are black.

Self-regulated learning

It is impossible for educators to entirely prepare graduates to be accountants, because of the profession's rapid changes (Smith, 2001). Smith (2001) states that graduates should be groomed by their educators to become accounting professionals by furnishing them with lifelong learning skills. This is reiterated by Becker (2013), stating that one such step to take would be to develop lifelong learners so graduates can "maintain competency" in their respective professions. The accounting profession's call for lifelong learning skills development would produce an accounting professional who would use these independent learning skills of making decisions, solving problems and managing oneself to establish what requires to be learnt and how to learn it (Smith, 2001).

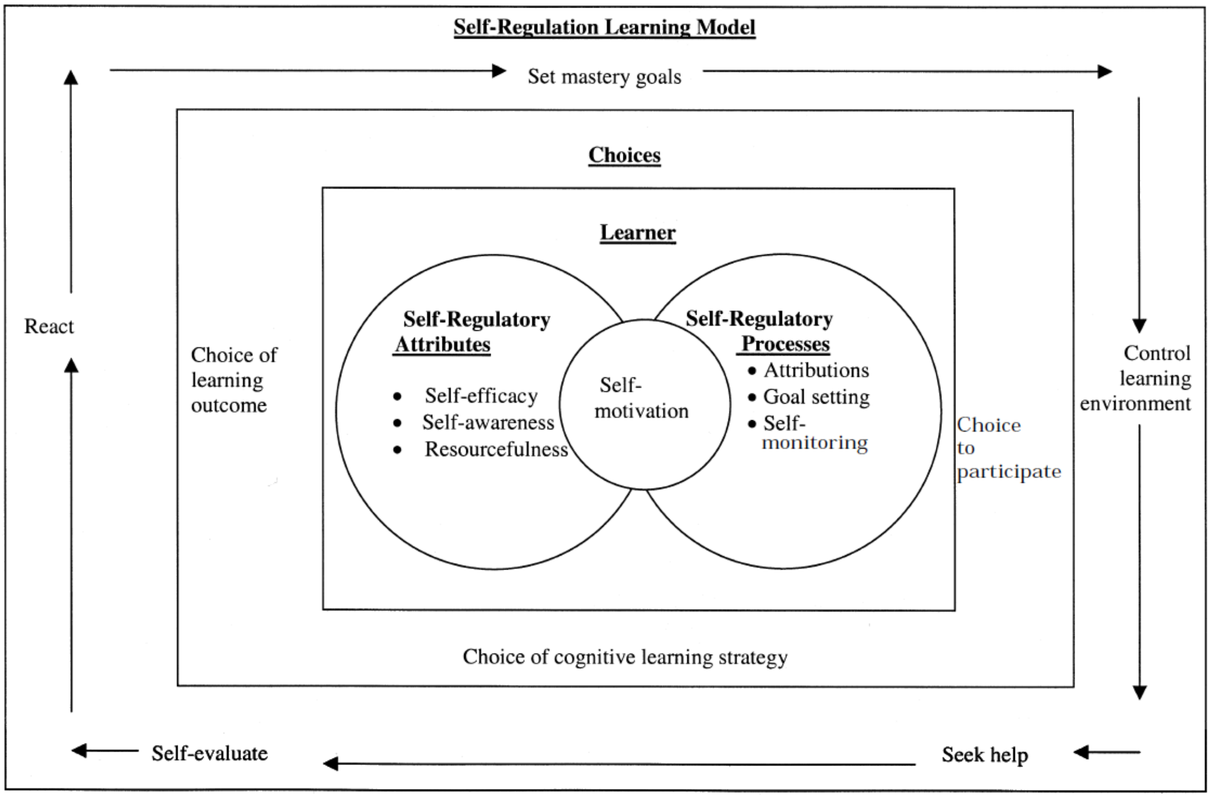
Self-regulated learning is an important capability for the contemporary workplace. Skills on how to learn are necessary for lifelong learning, and that is the focus of self-regulated learning (Becker, 2013). A fundamental to lifelong learning skills is self-regulated learning. This is a process where the student will exercise control over their thoughts, effect, and behaviour as knowledge and skills are obtained (Smith 2001). The goal of self-regulated learning is "updating skills, acquiring new knowledge, and solving new problems throughout life" (Becker, 2013:437). Students, rather than receiving knowledge passively from external sources, are seen as active participants in their own learning (Becker, 2013). Self-regulated learning is not an "all-or-nothing" concept but rather it is a matter of degree, and the goal is to move students toward a higher degree of self-regulation (Becker, 2013). Learning strategies associated with self-regulation learning are not innate for most students. It is therefore that these skills must be developed in an academic setting and they are best developed in authentic classroom settings rather than in separate learning skills courses (Becker, 2013). Self-regulated learning simultaneously offers the potential for increased academic performance by students who develop such skills (Becker, 2013). Zimmerman and Martinez-Pons (1986) conducted a pivotal study on self-regulated learning in the accounting classroom and a later study conducted by Schleifer and Dull (2009), determined that higher academic performance could be associated to higher levels of self-regulated learning (Becker, 2013).

Accounting is considered a more challenging and conceptual course, and therefore provides the most favourable context for the development of self-regulated skills (Becker, 2013). An opportunity exists to develop students' self-regulated skills whilst simultaneously affording the support required to improving on their chances for academic success in an accounting course, as suggested by the nature of the course and the characteristics of the students in the course (Becker, 2013). The relationship between self-regulated learning and students' academic performance and their future professional success must be communicated by educators to students to encourage metacognitive awareness (Becker, 2013). The students' motivation should be increased by knowing that performance centres on more than intellectual capacity, and realising the relevance of self-regulated learning to their future professions (Becker, 2013).

Students' self-motivation

At the core of self-regulated learning is the student's self-motivation, which is intense determination to learn something specific or to acquire some added level of expertise (Smith, 2001 and Mooi, 2006). With no self-motivation, many of the choices and processes would not be accomplished (Smith, 2001). Unlike students who receive instructions passively determined by an external authority, self-motivated students have an intrinsic goal directed towards a drive of self-improvement (Smith, 2001). Students will be more likely motivated to learn if they believe that their ability to learn can be credited to forces that they can command (Mooi, 2006). Figure 1 below demonstrates the fundamental and dynamic relationship between self-motivation and the student's self-regulatory attributes and processes. Any combination of the attributes and processes' strength and weaknesses affects how strong the focus on self-motivation will be (Smith, 2001). The student who will be most self-motivated will believe in their capabilities (*self-efficacy*), believes the ultimate outcome is attributed to controllable forces (*attributions*), and sees goals as achievable (*goals*) (Smith, 2001).

Figure 1: Self-Regulation Learning Model



Source: Smith (2001).

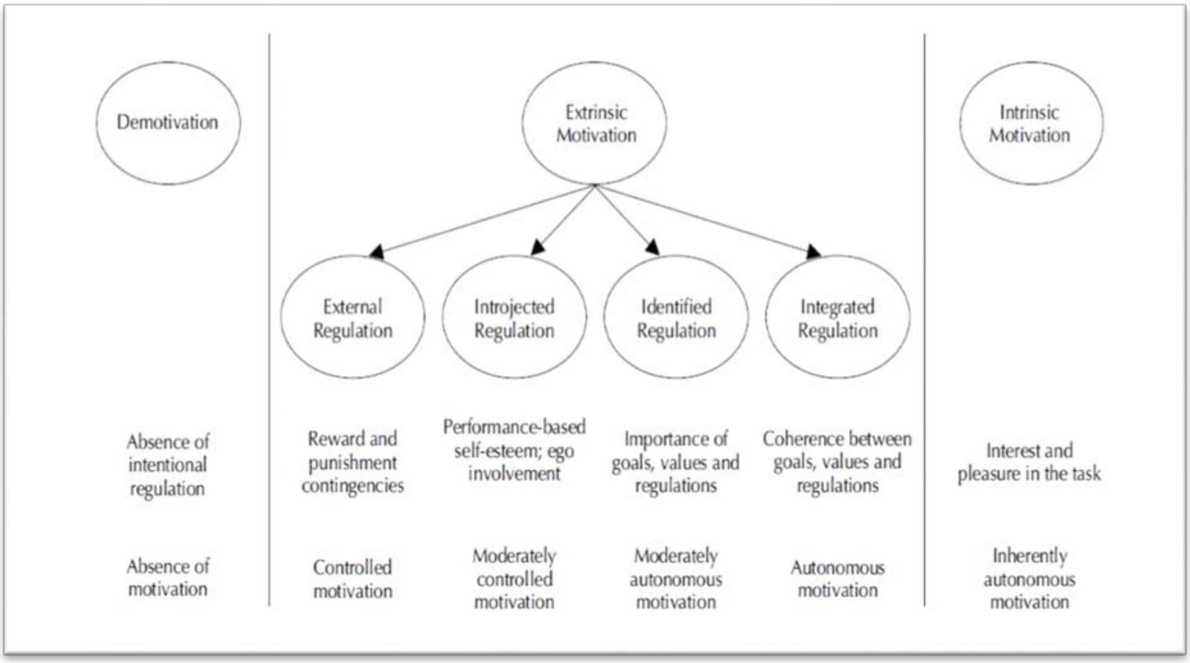
Conditions that relate with initiation and persistence of behaviour have been emphasised by motivation research, the nature and vastness of human needs and the influence of environmental conditions on need stimulation and satisfaction. For instance, initial motivation theory offered explanations of all human actions as a predictable and controllable response to reinforcements (Facer, 2012). More recently, reinforcement theory was rejected as a satisfactory explanation of human motivation. Other researchers proposed that humans decision to act or not to act is based on the utility they perceive the activity to have given their goals (Facer, 2012). It was further proposed that humans decide to act in order to satisfy acquired psychological needs such as the need for achievement, the need for affiliation, and the need for power. Today, the Self-Determination Theory (Deci and Ryan, 2002), is a meta-theory that aims to describe human functioning generally. According to SDT, a person engages and persists in an activity based on the extent to which innate psychological needs for autonomy, relatedness, and competence are satisfied or thwarted (Facer, 2012).

A distinctive prescription on how to motivate people to excel and thrive is prescribed by the SDT. Human motivation as described by the SDT is a broad-based theory, which has been developed for more than 30 years. Fundamental bases, processes and conclusions of human thriving, especially the conceptualisation of the nature of “optimal motivation”, with the general conditions supporting or undermining such motivation is meant to be expressed by this theory (Vansteenkiste and Seldon, 2006). This motivation is achieved by supporting the autonomy of the people (Vansteenkiste and Seldon, 2006). The SDT’s useful perspective, was developed by Deci and Ryan (1980, 1985, 2002) conceptualising motivation as being intrinsically and extrinsically oriented, therefore students could present different motivation in a continuum from lack of control to self-determination (demotivation, external motivation (external, introjection, and identification and integrated) through to internal motivation (Arquero *et* al., 2013).

Gagnè and Deci (2005), Porter and Lawler (1968) proposed a work motivation model based on Vroom’s (1964) motivation of theory which operates on two dimensions: intrinsic motivation and extrinsic motivation. This theory maintains that intrinsic motivation involves people performing an activity purely from interest in the activity (doing the activity for its own sake) and feel immediate satisfaction in performing it, simply because the activity is innately pleasant, satisfying or challenging (Vansteenkiste and Seldon, 2006 and Miranda *et* al., 2013). Automatic self-determination is seen as intrinsic motivation because the person’s full abilities are readily engaged in a self-catalysing chain of activity (Deci and Ryan, 2002). Contrasting intrinsic motivation is extrinsic motivation; the outcome of the activity is separable from the activity. Little or no enjoyment is derived by people performing this activity (Vansteenkiste and Seldon, 2006). Extrinsic motivation requires a conduit between the activity and a separate consequence, for example verbal or tangible rewards. The extrinsic consequence produced by the activity produces the satisfaction and not the activity itself (Miranda *et* al., 2013). This means that the SDT “makes an important distinction between two different motivational issues: why versus what for. What is the purpose of your activity and why do you want to accomplish this goal?; what are the reasons that lead the effort to achieve this goal?” (Miranda *et* al., 2013:164). “Motivation can have an effect on learning and performance at the same time that learning can affect motivation” (Miranda *et* al., 2013:164). The evaluation of dissimilar indications of motivation that is involved in the teaching and learning process is the principle on which SDT is built (Miranda *et* al., 2013).

A self-determination continuum (Figure 2) has been presented by Gagnè and Deci (2005), where the six types of motivation are distinguished varying qualitatively per the internalisation of external behavioural regulation (Miranda *et* al., 2013). There are three groups in which an individual's motivation can be analysed according to this approach: demotivation, extrinsic motivation, and intrinsic motivation (Miranda *et* al., 2013).

Figure 2: The Self-Determination continuum



*Source: Adapted from Gagnè and Deci (2005) in (*Miranda *et al*., 2013).

The lack of motivation is as the name implies, demotivation, i.e., there is no intentional behaviour by the person to proactively engage, and "in such a situation, there is a devaluation of activity and a lack of perceived personal control" (Miranda *et* al., 2013:164). Extrinsic motivation is in the second group, divided into four types of behavioural regulation that may differ in the degree of autonomy they represent:

1) External regulation; the least autonomous form of motivation, in this case, the person acts to receive an award or avoid being punished. An example is, "a student studying on a Friday night so that their mother might let them go to a party on Saturday night (extrinsic motivation and external regulation)" (Miranda *et* al., 2013:164). For the youth of today, technology is everything. A student could bargain with their parent that should they do well, they will receive a cell phone or a better cell phone to what they already have. But students could bargain with almost anything they want from their parents to motivate them to study harder.

2) Introjected regulation; the results of internal pressures such as guilt and anxiety are managed by the person's external consequences. For example, "a student can give their best in school because their parents require it and they do not want to disobey them and because otherwise they would feel guilty. Thus, they study to avoid feeling guilty" (Miranda *et* al., 2013:164).
3) Identified regulation; this is a more autonomous form than the previous types as, in this case, even if the reason to do something is externally originated, some internalisation already exists. For example, "A student can do their best in school because they want to go to university and become an accountant. They perceive themselves as a future accountant. This student's motivation is instrumental and hence extrinsic, but identifies itself with the reason to study" (Miranda *et* al., 2013:164).
4) Integrated regulation; the behaviour, goals and values of the person are clear, making this the most autonomous form of extrinsic motivation, although the focus remains "on personal benefits arising from carrying out the activity" (Miranda *et* al., 2013:164).

Lastly, intrinsic motivation, the person is interested and enjoys carrying out the task, and the activity itself is seen as an end (Miranda *et al*., 2013).

Osborne and Jones (2011) proposed a theoretical model which directly links the structure of self-motivation to academic results (Miranda *et* al., 2013). Wechsler (2006), Pfromm (1987), Schunk (1991) and Mitchel Jr. (1992) have had discussions on SDT in the field of motivation in school learning, and these studies show that motivation can affect student's learning and performance, and equally, that learning can affect motivation (Miranda *et* al., 2013). Reeve (2002) highlighted that students who are intrinsically motivated tended to have better success in education and are able to benefit more from autonomous styles of teaching (Arquero *et* al., 2013). The quality of student learning shows that intrinsic motivation is an important aspect. It was found that a significant influence in the performance of accounting students is motivation (Ahmad *et* al., 2011).

In this section, environmental changes of the accounting profession were reviewed. These also affect the South African profession. The racial profile of the South African accounting profession was evaluated by highlighting the need for black accountants and how universities need to ensure that black accounting students are produced to close the gap, ensuring that black accounting students succeed in their studies and as well as in their careers .The evaluation of self-motivation of accounting students was traced through the motivation literature. A review of the self-regulated learning model revealed key components of self-regulated learning, which has self-motivation at the core of the model. The review of self-motivation as explained by the SDT includes related subconstructs which lay the foundation for the survey methodology presented next.

Methodology

The approach of the study was quantitative, with a positivist foundation. It is founded on the broad premise that self-motivation can be tested against an existing ideal norm or standard. A self-regulation questionnaire was downloaded from the SDT website. This questionnaire reveals the reasons why people learn in certain settings such as universities by asking three questions about why people engage in learning-related behaviours. Each question is followed by 4 statements that are answered using a Likert five-point scale (strongly agree to strongly disagree). Each point of the self-determination continuum will be evaluated by a set of items that encompass controlled regulation and autonomous regulation. Responses will indicate either controlled (i.e., external regulation or introjected regulation) or autonomous motivation (identified regulation, integrated regulation or intrinsic motivation) (Miranda *et* al., 2013).

There are previous studies that validated the SDT questionnaire used in this study. These previous studies on constructing and adapting instruments to evaluate motivation for learning were conducted by Deci and Ryan (1985, 1991, 2000 and 2002), Vallerand *et* al. (1992), Amabie Hill, Hennessey and Tighe (1994), Guimàreas, Bzuneck, and Sanches (2002), Reeve and Sickenius (1994), and Guimàreas, Bzuneck, and Boruchovitch (2003). The possibility to evaluate learning motivation in a valid, precise and consistent way was presented by these studies (Miranda *et* al., 2013).

The participants of this study were TUT students at Ga-Rankuwa campus registered for an accounting course in the second semester of 2016. Because this campus is in a black township, a major part of the student population at this faculty consists of black students. TUT Ga-Rankuwa campus students represent a more rural population than those at urban universities, and a large number of students come from disadvantaged backgrounds.

First-year accounting has a high failure rate at higher education institutions, thus becoming a large concern globally and in South Africa (Barnes *et* al., 2006). This is also true of the TUT Ga-Rankuwa campus (see Table 1 below). The faculty management at TUT Ga-Rankuwa campus has classified the accounting course as a high-impact subject in the Department of Accounting. Third-year accounting has also created a bottleneck, as only about half the students registered pass this course (Table 1). There is pressure on higher education institutions to increase their throughput rate and decrease their failure rate. The consequence of poor performance is that the student does not pass, which not only affect the student personally, but also causes student congestion (due to high numbers of repeaters), which in turn prevents new students from enrolling.

Table 1: Summary of the pass rate in Accounting for the past three years at TUT Ga-Rankuwa campus

COURSE	2013	2014	2015
Financial Accounting I	50.99%	39.71%	45.42%
Financial Accounting II	86.81%	72.75%	85.99%
Financial Accounting III	51.55%	54.11%	56.38%

The Faculty of Economics and Finance comprises the Department of Accounting, the Department of Internal Auditing, the Department of Managerial Accounting and Finance, the Department of Economics and the Department of Public Sector Finance. In the Department of Accounting, the NHC: Accountancy is a generic two-year programme and serves as a prerequisite for the following National Diplomas:

- Accounting
- Internal Auditing
- Cost and Management Accounting.

In 2016 there were 1 861 students registered for Financial Accounting I (first-year level), 790 students registered for Financial Accounting II (second-year level) and 970 students registered for Financial Accounting III (third-year level). There were 10 groups of first-year accounting students, 6 groups of second-year accounting students and 5 groups of third-year accounting students. Permission was requested from the lecturers responsible for the different groups to inform their students about the study and the survey during their class time. At the beginning of each lecture the researcher introduced herself to the class. The study's objective was relayed to the students and the students were requested to participate in the study.

The students were assured of the confidentiality of the information supplied and their choice not to answer the questionnaire if they did not wish to. Weekly reminders of the survey were sent out to the students during their class time by their accounting lecturers.

The questionnaire was administered as an online survey distributed to all students who are registered for an accounting course at TUT, Ga-Rankuwa campus. The method of instruction was English as the medium of instruction at TUT is English. The questionnaire was administered electronically using the learning management system at TUT (myTUTor). Permission was sought from the subject coordinators of the different levels to build the survey into their modules. The survey was placed on the students' myTUTor account in their accounting course and completed when they logged onto to myTUTor. The survey was displayed on the welcome page of the accounting course so as to make it easier for the students to locate the questionnaire. Students answered the questionnaire when they were accessing their accounting study material. This ensured that the students did not feel intimidated and had ample time to complete the questionnaire in their own time and space. This manner also ensured that anonymity of respondents was maintained in the survey. A major limitation of the survey was that students may have answered without giving proper consideration or thought to their responses. Other students might have made light of the questionnaire and given false answers. The questionnaire was made available to students for a short period, and therefore not all students may have had the opportunity to respond to the questionnaire. Some students may not have a myTUTor account or may have forgotten their log-on details, therefore only those students with an active account would be able to participate in the survey. And the myTUTor system could also have been offline, resulting in students being unable to access the questionnaire.

The questionnaire was adapted slightly for the purpose of this study to suit accounting students studying at the TUT Ga-Rankuwa campus. The questionnaire was sent to the research ethics committee at TUT, where permission was granted to use the questionnaire to survey TUT students. The SDT was previously validated externally in South Africa by Muller and Louw (2010), who analysed the relationship between university students' interest and motivation on the one hand with the perceived conditions of teaching and learning at the

University of Cape Town. The theoretical expectations are confirmed by the correlations between interest and the variables of the SDT (Muller and Louw, 2010).

This section provided an overview of the steps taken to develop and validate the self-regulation questionnaire. A review of the literature confirmed that the methodology chosen uses accepted standards for motivation instruments. As such, the process outlined in this section provides a sufficient level of thoroughness upon which to base the assertions that the SDT is a valid, reliable, and practitioner-friendly offering to the motivation literature. The next section will discuss the results of the data collected, and upon which such assertions about reliability and validity were based.

Analysis of data

The study instrument was made available to all 3 621 accounting students at TUT Ga-Rankuwa campus through their online management learning system (myTUTor). Only 187 valid responses were received, giving a response rate of 5.16%. An acceptable response rate for online surveys is 30% (Baruch and Holton, 2008). The response rate level is a crucial factor in measuring the value of the research findings, as a low response rate increases the probability of statistical bias (Baruch and Holton, 2008). Due to the low response rate, the findings of the study cannot be generalised, but the data was nevertheless analysed as it could still offer some insight. To eliminate the non-response bias, the stratification method was utilised. This approach has been advocated and occasionally used (Baruch and Holton, 2008). Stratification is based on the assumed similarity of non-respondents to some sub-groups (Baruch and Holton, 2008). The class lists of the Financial Accounting groups confirmed that this sample is representative of the population.

The profile of the respondents was 103 (55%) female and 83 (44%) male, distributed among the following age groups: 18 years: 6 (3%); 19 years: 22 (12%); 20 years: 40 (21%); 21-25 years: 115 (62%). The racial composition was 98% black, 1% white and 1% coloured. The respondents were 61 (33%) first-year, 35 (19%) second-year and 90 (48%) third-year accounting students.

Almost 100% of TUT students are black. The racial composition of the groups was used to generalise the population. From the class lists we can confirm that 99% of Financial Accounting I students are black, 98% of Financial Accounting II are black and 98% of Financial Accounting III are black. The majority of respondents were between the ages 21-25 years for all the Financial Accounting courses, and most of them are registered for Financial Accounting III. The majority of the students indicated that they were registered in their Financial Accounting course as a first-time students (not repeating). The majority of the Financial Accounting I students (98.5%) predicted that they would pass the course, but the final-year marks from the previous year indicated that only 45% of the students passed. Financial Accounting II students all predicted a mark above 50%, indicating that they would all pass the course. In the previous year, only 86% of the students had passed. This prediction may not apply to the students who participated. Financial Accounting III students all predicted that they would pass the course. This may not be a reasonable expectation, as only 56% of the students passed the course the previous year and the pass rate was approximately 50% for the previous 3 years (Table 1).

To determine the types of academic motivation affecting accounting students in light of SDT, each question from the questionnaire is followed by four statements. The responses to these statements will indicate either controlled motivation (i.e., external regulation or introjected regulation) or autonomous motivation (i.e., identified regulation, integrated regulation or intrinsic motivation) or demotivation.

Table 2: Numbering of PART B questions of the questionnaire

Number	Question
I participate actively in accounting classes:	
A1	because I feel like it's a good way to improve my understanding of the material.
A2	because others might think badly of me if I didn't.
A3	because I would feel proud of myself if I did well in the course.
A4	because a solid understanding of accounting is important to my intellectual growth.
I am likely to follow my lecturer's suggestions (learning tips and points) for studying accounting:	
B5	because I would get a bad grade if I didn't do what he/she suggested.
B6	because I am worried that I am not going to perform well in the subject.
B7	because it's easier to follow his/her suggestions than come up with my own study strategies.
B8	because he/she seems to have insight about how best to learn the material.
The reason that I will make an extra effort in understanding and practise accounting problems is:	
C9	because it's interesting to learn more about the nature of accounting.
C10	because it's a challenge to really understand how to solve accounting problems.
C11	because a good grade in accounting will look positive on my record.
C12	because I want others to see that I am intelligent.

The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy was 0.707 (Table 4 below), which is above the recommended threshold of 0.5 and Bartlett's Test of Sphericity was significant ($p<0.001$) for the twelve items dealing with self-motivation of accounting students, which indicated that a factor analysis was appropriate. The analysis indicated four factors, and the analysis identified only four factors based on the eigenvalue criterion (eigenvalue greater than 1) and these factors explain 38% of the variance after extraction. The final factor loadings are shown below (Table 3).

Table 3: Pattern Matrix

	Factor 1	2	3	4
A2			.789	
A3	.674			
A4	.741			
B5		.354		
B6				
B8		.776		
C11				.398
C12			.393	
A1	.510			
B7		.662		
C9	.435			
C10				.606

Table 4: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.707
Bartlett's Test of Sphericity	Approx. Chi-Square	363.803
	Df	66
	Sig.	.000

Using Cronbach alpha, the internal consistency (reliability) for each of the four factors was determined as 0.650, 0.587, 0.512 and 0.337. With the exception of the first factor, the factors were below the acknowledged threshold for exploratory research, namely 0.6. It was thus decided to analyse each statement separately in the subsequent analysis.

If a variable that is being analysed does not conform to any known or continuous distribution, non-parametric statistics is suitable. The Kruskal-Wallis test can be used when there is a need for comparison of two or more independent groups based on a single variable. It is useful to apply this test when the sample from the population is small or the data type is ordinal. A statistical difference of less than 10% indicates the similarity found per variable analysed.

The instrument – reasons why students participate in an accounting class – the following results were produced by the Kruskal-Wallis test.

Table 5: Part B: Statistically significant differences indicated at 10% level

The results indicate that there is a statistically significant difference, at the 10% level of significance, between the three Financial Accounting levels relating to the factors below.

Number	
A1	0.095
A3:	0.009
A4:	0.044
B5:	0.047
B8:	0.084
C11:	0.095

Similarities were indicated in the following factors at the three levels of Financial Accounting groups. This is indicated by a statistically significant difference of less than 10%.

(A1: p=0.095): The mean ranks indicate that Financial Accounting I and III tend to agree most that participation in an accounting class is a good way to improve their understanding of the material.

(A3: p=0.009): The mean ranks indicate that Financial Accounting I and III tend to agree most that they participate in an accounting class because they would feel proud of themselves if they did well in the course.

(A4: p=0.044): The mean ranks indicate that Financial Accounting I and III tend to agree most that they participate in an accounting class because a solid understanding of accounting is important to their intellectual growth.

(B5: p=0.047): The mean ranks indicate that Financial Accounting I and III tend to agree most that they are more likely to follow their lecturer's suggestions for studying accounting because they would get a bad grade if they didn't do what the lecturer suggested.

(B8: p=0.084): The mean ranks indicate that Financial Accounting I and III tend to agree most that they are likely to follow their lecturer's suggestions for studying accounting because the lecturer seems to have more insight into the best way of learning the material.

(C11: p=0.096): The mean ranks indicate that Financial Accounting I and III tend to agree most that the reason why they would make an extra effort to understand and practise accounting problems is because a good grade in accounting will look good on their record.

None of the other factors showed statistically significant differences between the three accounting levels (all the p values were above 0.1).

A response rate of 5.16% was achieved and the data was analysed using the exploratory factor analysis. The acknowledged threshold for exploratory research was not achieved, and therefore each statement was separately analysed using non-parametric statistics. The results produced by the Kruskal-Wallis test on the instrument indicated 6 factors that showed a statistically significant difference of less than 10% between all the groups. These factors indicated a similarity between all the Financial Accounting groups.

The first factor indicated that all three levels of Financial Accounting agreed that they participated in an accounting class because they felt that it was a good way to improve their understanding of the material. This may indicate coherence between goals, values and regulations. These results may indicate a form of integrated regulation and, according to the SDT continuum, may indicate extrinsic motivation.

The next factor indicated that all the groups agreed that they participated in an accounting class because they would feel proud of themselves if they did well in the course. This factor may indicate introjected motivation, which is also a form of extrinsic motivation according to the SDT continuum, indicating a performance-based self-esteem.

All the groups further agreed that their participation in an accounting class was because a solid understanding of accounting is important to their intellectual growth. This factor may indicate coherence between goals, values and regulations. This may indicate integrated motivation, which is a form of extrinsic motivation.

All the groups then indicated that they didn't participate in an accounting class because of what others thought of them. This may indicate that the students were not externally motivated by their ego, which would have indicated introjected regulation, i.e. extrinsic motivation.

All the groups agreed that they were likely to follow their lecturer's suggestions for studying the accounting because he/she seemed to have more insight in the best way to study the material, this may indicate coherence between goals, values and regulations, indicating integrated regulation (extrinsic motivation).

Lastly, all the groups indicated that they agreed that the reason why they would make an extra effort to understand and practise accounting problems was that a good grade in accounting would look good on their record. According to the SDT continuum, this is introjected regulation – extrinsic motivation based on performance-based self-esteem.

As the above factors showed a statistically significant difference of less than 10% between all the Financial Accounting groups, it may be concluded that the students were more extrinsically motivated, as they indicated more introjected motivation and integrated motivation according to the SDT continuum.

It was highlighted that students who are intrinsically motivated tended to have better success in education and are able to benefit more from autonomous styles of teaching (Arquero *et* al., 2013). The quality of student learning shows that intrinsic motivation is an important aspect. With these findings, the educators and the institution could start investigating methods to move the students to be more intrinsically motivated, as it was indicated by different authors that an intrinsically motivated student would benefit the accounting profession (Miranda *et* al., 2013).

Lastly, the conclusions related to the stated objective of this study are presented next. The conclusion commences with a summary of the contribution by this study, a brief discussion of the limitations and an indication of future research that may be relevant to this topic. The paper closes with some concluding remarks.

Conclusion

Motivation, as a significant influence in strengthening the students' involvement in learning activities, inspired the present study, which evaluates the self-motivation of accounting students at a township campus by means of the SDT. The primary objective of the study was supported by secondary research objectives, namely:

- A literature review to clarify the theoretical framework underpinning this study.

  The literature review was performed to empirically explore the concept and the definition of self-regulated learning, which hinges on self-motivation and the types of motivation on the self-determination continuum.
- Analysis of the data collected in order to determine the types and levels of academic motivation of accounting students.
- Determination of the correlation between the types of motivation according to the self-determination continuum and the accounting students registered at a township campus.
- Drawing conclusions on the findings of the study and making recommendations for further research related to the topic.

To cope with the rapid changes of the accounting profession, accounting standards are regularly revised, as the applicability of the knowledge of existing accounting standards is expected to be short-lived (Foong and Khoo, 2013). Consequently, accounting graduates should be equipped with the ability to constantly update themselves not only on the latest technical accounting developments, but also on areas that might directly or indirectly be relevant to the successful development of their organisations (Foong and Khoo, 2013).

With these environmental changes also facing the accounting profession in South Africa, the local accounting profession has also made efforts to transform its demographic profile. South Africa's accounting profession is still closed to black accountants, with a disproportionally low number of black accountants in relation to the country's racial demographics (Barac, 2015). Increasing self-regulation of black accounting students at township universities by increasing their motivation should help socio-economically disadvantaged students enter the restricted market (Barac, 2015).

Self-regulated learning plays a fundamental role in academic success and is also a skill that is professionally desirable (Smith, 2001). A learning environment that encourages skills in self-regulated learning has the potential to substantially propel the instructional efforts to shift accounting students toward a higher level of self-regulation (Smith, 2001). Successful self-regulated learning efforts are facilitated by a quality learning environment, as this could considerably intensify the student's attitude towards the search for current knowledge. In this respect, educators play a crucial role in shaping the student's attitude towards self-regulated learning (Foong and Khoo, 2013). In meeting the "broader content coverage" expected by the accounting profession, accounting educators should change from their compliance-driven attitude to one appreciating the relevance of non-technical course contents when designing the curriculum (Foong and Khoo, 2013).

The SDT can have educational significance in numerous ways. Firstly, intrinsically motivated students are more comfortable in their learning processes; these students acquire knowledge in a more differentiated and coherent form, their learning is retained over a long period, and their own knowledge is applied more regularly than that of others (Muller and Louw, 2010). Furthermore, these students cope better with university demands. Over an extended period, they display a higher academic performance and perceive themselves as more competent (Muller and Louw, 2010). Secondly, the quality of instructional processes and their effects, such as instructional designs that promote motivation, must be improved (Muller and Louw, 2010). The satisfaction of basic psychological needs is an important precondition for self-determined motivation, as studies on SDT have indicated (Muller and Louw, 2010).

The findings of this study could have implications on how academic reforms may be restructured to emphasise active student learning for developing attitudes consistent with the self-regulated learning culture, which are critical for success in the increasingly challenging work environment (Foong and Khoo, 2013). The reforms should be directed at the development of a multi-competent workforce, as companies are seeking adaptable employees who can look beyond the numbers (Foong and Khoo, 2013). The study also highlights the importance of educators in understanding the consequences of motivational processes in the accounting classroom (Miranda *et* al., 2013). If accounting as a course attracts students with high levels of external regulation, then the characteristics of the students and the consequences thereof should be taken into consideration when developing the learning contexts (Arquero *et* al., 2013). If the students' types of motivation are known, institutions and educators can act to stimulating and maintaining motivation levels throughout the programme, in accordance with the results of the present study (Miranda *et* al., 2013). This may be particularly relevant, as there is evidence suggesting that pedagogical skills of educators may affect student motivation (Miranda *et* al., 2013). There is a need for new methods of classroom education that are capable of streamlining the teaching and learning process by involving students in the design of the content to be studied (Miranda *et* al., 2013). The findings of this study are also important for the primary and secondary education of students. This may be where interventions should be made by the provincial and national governments. The importance of this is due to the university environment having more heterogeneous students across different generations who are increasingly connected to new technologies (Miranda *et* al., 2013). Therefore, an important action would be to invest in teacher training on Accounting education (Miranda *et* al., 2013).

The study has limitations. Firstly, the students that participated in this study are enrolled at a single university. A second limitation is that the selection of the student participants was not random. The convenience use of the participants is acknowledged, even though it is believed that the participant selection did not bias the results. The third limitation of the study was the low number of valid responses. A response rate of only 5.16% was achieved, which is considerably lower than the acceptable 30% for online surveys. A final limitation is that a factor analysis could not be performed on the response data, as it was below the acknowledged threshold.

Recommendations of the study are that more current and extensive research is required. The replication of the study in other contexts is suggested, particularly in accounting programmes in urban universities, to ascertain trends on accounting students' motivation. A comparative study contrasting population groups and urban/rural setting would be a valuable extension of this work. This will contribute to the educational debate. And, as suggested by Miranda *et* al., (2013), more studies using qualitative methodologies are required, such as observing student behaviour, as previous studies have predominantly used quantitative methods to better understand the phenomenon of motivation. The impact of primary and secondary education on students' motivation can also add value to the debate. Furthermore, studies need to be done to on how parents could boost their children motivation through real practical terms. Students seem to be extrinsically motivated, so that incentive should be used, however intrinsic motivation is linked to locus of control and as well as developmental factors, so how can these be addressed in a short period of time in the university setting, what additional support could be provided? There is potential for a lot more work in further research here, possibly qualitative.

The study aimed to evaluate the motivation of accounting students at a township campus in light of the SDT. The population did not produce adequate responses. The results of the exploratory factor analysis could also not be relied upon, as the factors determined were below the acknowledged threshold. Non-parametric statistics was subsequently applied. There were 6 out of 12 factors that indicated a statistically significant difference of less than 10%. These 6 factors may have indicated introjected regulation as well as integrated regulation, indicating that the students were extrinsically motivated. Extrinsic motivation requires a conduit between the activity and a separate consequence, for example verbal or tangible rewards. There is potential for a lot more work in further research here, possibly qualitative. Students should be moved to be more intrinsically motivated. Intrinsic motivation is inherent autonomous motivation, where there is interest and pleasure in performing the task. Based on the findings, educators and the university could stimulate the student's motivation throughout an accounting programme, and fostering self-regulated learning in the black students and as well as intense academic support would assist black students enter the restricted profession.

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EDU012 An alternative journey towards flipping the classroom through Self-Regulated Learning skills

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ABSTRACT:

The paper reports the findings of an intervention designed to gradually introduce students to self-regulated learning principles with the ultimate goal of being able to flip the classroom. A qualitative research approach was used to gather and analyse the data. Data was collected in the form of verbal and written feedback from group participants and the lecturers' research diaries. The participants were 38 part-time Management Accounting and Finance III students, several of which had failed the course two or three times before. The majority of these repeat students had a very negative attitude towards the course and believed that lecturers were mainly to blame for their past failures. To overcome their negative attitude towards the course the two lecturers who delivered the course set out to gain the trust of the students. The lecturers followed a structured program to introduce the students to the following self-regulated learning strategies and skills: goal setting, time and study environment management, group work, problem-solving, effective reading and meta-cognitive self-regulation. As the course progressed students were given greater responsibility for preparing the material for the lectures so as to engage in group discussions. By the end of the course the improvement in students' motivational, behavioural and learning strategies was noticeable and the lectures were flipped successfully. Results suggest that exposing students to strategies and skills in an active learning environment assists students to take responsibility for their own learning and improved academic outcomes.

Key words: self-regulated learning, motivational strategies, behavioural strategies, learning strategies, flipping the classroom

INTRODUCTION

Students enrolled for university degrees not only need to master the content knowledge and academic skills, but need to develop a range of non-cognitive abilities such as motivation, time management and self-regulation in order to succeed (Nagaoka et al., 2013, Wilmot and Merino, 2015, Rowan-Kenyon et al., 2017). Research has established links between acquiring self-regulated learning (SRL) skills and the positive impact on academic outcomes (Zimmerman, 2002, Pintrich, 2004, Silén and Uhlin, 2008, Nagaoka et al., 2013). SRL refers to the processes required to reach a goal through acquiring new knowledge, changing behaviour and learning new skills. The processes can be categorised into three components, namely; motivational strategies, behavioural strategies and learning strategies (Zimmerman and Risemberg, 1997, Dembo and Seli, 2013, Merino and Aucock, 2017).

Management Accounting and Finance III is offered face-to-face as a full-time or part-time course at a South African university. Over the past six years the students in the part-time class have struggled to get to grips with the content and therefore shown very low motivation and insufficient perseverance in their commitment towards the module. These part-time students have to contend with challenges such as the inability to dedicate much of their time to their studies due to work and family commitments (Kember, 1999, Yum et al., 2005, Kasworm, 2008). Not only is the course demanding in terms of the amount of content to master given the available time, but it requires various analytical, problem-solving and reading skills. The required support for the students to acquire the necessary strategies needed to successfully complete the module had been lacking in the past (Wilmot and Merino, 2015, Merino and Aucock, 2017). We identified this problem given that SRL is especially important in environments where support and guidance is lacking (Kizilcec et al., 2017) and set out to change the students' negative attitude by introducing them to these skills. We needed to change their attitude towards the module and the lecturers and teach them the necessary skills to enable them to take responsibility for their own learning.

This paper describes the methodology and input of the two lecturers from the School of Accountancy as they introduced the part-time class to SRL strategies and skills. The acquisition of the strategies and skills would be evidenced by the students' willingness to participate in a flipped classroom at the end of the semester.

During the first teaching cycle which took place during the first block, the lecturers exposed the students to a range of SRL skills and strategies whilst building trust between themselves and the class in an attempt to breakdown the initial resistance to change.The second cycle was introduced during the second block and was designed once the data and the personal reflections of the first cycle were analysed.

CONCEPTUAL FRAMEWORK UNDERPINNING THE RESEARCH

The intervention was designed based on a conceptual framework which categorises SRL skills into three components: motivational strategies, behavioural strategies and learning strategies as illustrated in Figure 1 (Merino and Aucock, 2017). Motivational strategies relate to goal-setting, self-efficacy beliefs, and the effort that students put into achieving their set goals; whereas time management and the managing of students' social and physical environments form part of behavioural strategies. Learning strategies guide the way in which learning takes place during preparation, and how assessments are approached. These learning strategies include problem-solving, effective reading, metacognition and self-regulation. The framework used by Merino and Aucock (2017) was adapted slightly for this study so as to assess the impact of exposure to SRL skills on academic outcomes rather than academic performance as the aim of this study was to observe the change in students' participation, active learning and peer-to-peer collaboration over time in a final flipped the classroom setting (Roehl et al., 2013). The interaction between motivational, behavioural and learning strategies including the components of each strategy, and its impact on academic outcomes is illustrated in Figure 1. Positive academic outcomes include students attending lectures, engaging with course material and active participation, all of which can be measured by how effectively the class could be flipped.

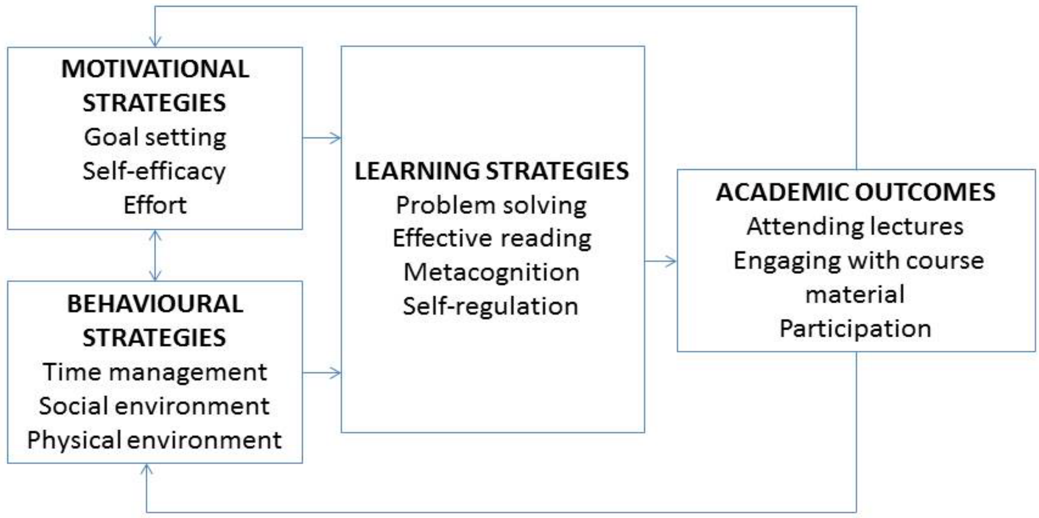

Figure 1. SRL Components and Strategies

Motivational strategies

Research shows that challenging goals lead to better performance (Latham and Locke, 2002, Meekings et al., 2011) as goal-setting focus's students' attention (Rothkopf and Billington, 1979) and encourages students to look for the best strategies to achieve the set goals (Wood and Locke, 1990). A student who sets goals is more likely to put effort into their studies, particularly when the student has confidence in their personal ability to achieve the goal. Students tend to engage in activities in which they feel confident that they will perform well, and tend to avoid activities in which they lack such confidence (Bandura, 1986). Furthermore, students need to be shown that what they are studying is relevant, as research has shown a direct correlation between class attendance and motivation and students' perceived value of the work covered (Pintrich and De Groot, 1990, Allensworth and Easton, 2007).

When students realise that there is a positive link between how much effort they put into their studies and the academic results that they are going to obtain as a result of their effort (self-efficacy), the goals they set act as motivation to put in a greater amount of effort (Bandura et al., 1996, Dweck, 2006, Zimmerman et al., 1992, Sales, 1970). Self-regulated learners are then able to stay focused on the goal (Pintrich, 1999), do the required work, and display the perseverance to persistently push forward towards the particular goal despite disappointments, distractions or challenges faced throughout the course (Duckworth and Seligman, 2005, Merino and Aucock, 2017).

Behavioural strategies

Research also points to a link between how students manage their time in relation to their academic performance (Steenkamp et al., 2009, West and Sadoski, 2011). Yum et al. (2005) found the biggest challenge for part-time students to be a lack of time, as fitting study time into an already busy schedule can be difficult for adult learners. The fact that the part-time students enrolled for this course were older and working full time meant that they were faced with additional commitments and responsibilities, which required better time management for their studies.

The management of a student's physical and social environments also form part of behavioural strategies, both contributing to the academic success of a student. Managing the physical environment means creating a study environment that is conducive to studying (Merino and Aucock, 2017). Social skills include interpersonal qualities such as co-operation, assertion, responsibility and empathy (Farrington et al., 2012) and are particularly important in collaborative learning environments in which students need to interact in order to learn (Vygotsky, 1978, Bandura, 1997). They also include social interactions between peers and between students and lecturers (Zimmerman and Martinez-Pons, 1990). With regards to managing the social environment, there is a long line of research that links sense of belonging with academic success (Harvey and Schroder, 1963, Goodenow, 1993, Cohen and Garcia, 2008, Oyserman et al., 2006, Won et al., 2017). Part-time students often battle with their sense of belonging (Kember, 1999) having a questioning sense of who they are, what they should be doing as learners, and how they can be effective and successful in a collegiate environment (Kasworm, 2008). Lecturers can therefore impact the social environment by encouraging students to ask questions, participate in group work and help to improve their social skills, as well as make consultation times available for students, and encouraging them to seek help when needed (Merino and Aucock, 2017).

Learning strategies

Learning strategies guide the way in which learning takes place and how assessments are approached. These strategies include problem-solving, effective reading, metacognition and self-regulation and encompass the capacity of students to perform study tasks such as reading, analysing and making summaries, as well as their ability to reflect on the effectiveness of their study approach (Farrington et al., 2012). This is largely impacted by a student's specific personality traits (Bidjerano and Yun Dai, 2007). There is also a great diversity of learning styles and approaches, and what may work for one student may not necessarily work for another. Students need to be aware of their preferred learning style and may need to adapt and change their approach in order to meet new study goals. This adjustment is achieved through metacognitive and self-regulated learning strategies which allow students to stand back and reflect on how they think and learn (Paris and Winograd, 1990, Zimmerman, 2002, Radovon, 2011, Wilmot and Merino, 2015).

Before starting a task, students who self-regulate set themselves study goals (motivational strategies), plan how they will use their time and organise their social and physical environment in order to achieve those goals (behavioural strategies). During their study time they then stay focussed and carry out the study tasks as previously planned. Upon completion of their study time they are able to reflect on the effectiveness of their study approach and determine whether or not their study approach needs to be modified (learning strategies).

Academic outcomes

In this framework the three strategies mention above impact on Academic outcomes. Academic outcomes refer to the behaviours that are expected of successful students, where these include attending lectures, engaging with course material and participating in class discussions and activities. These outcomes are all characteristics of a successfully flipped classroom. A "flipped classroom" refers to a class during which class time is focussed on active learning activities where students are engaged in collaborative learning (Tucker, 2012, Mok, 2014) instead of passively listening to a lecture. Research about "flipped classrooms" shows significant improvements in students engagement with the material as well as class participation (Gunyou, 2015) through active learning techniques (Tucker, 2012, Roehl et al., 2013, Phillips and Trainor, 2014, Jensen et al., 2015). It is through these behaviours that students not only develop content knowledge, but also demonstrate that they have or are engaging with course material (Nagaoka et al., 2013).

DESCRIPTION OF THE INTERVENTION

The intervention was implemented during the first semester of 2016. The 38 students who participated in the intervention were part-time BCom Management Accounting and Finance III students. Prior to the commencement of the study, ethical clearance was sought and granted by the University's Human Research Ethics Committee.

The main challenge emanated from the fact that these part-time students have limited time available to study given their other commitments. The interaction with other students and lecturers who could provide support and guidance in terms of the students' studies was limited to a single 3 hour contact session each week. This meant that the motivational, behavioural and learning strategies required to pass the course had to be introduced and as far as possible practiced during the sessions to encourage learning through active participation to be effective.

To overcome the negative attitude towards the course the two lecturers who delivered the course set out to gain the trust of the students. They introduced students to prior research that identified the challenges faced by part-time students in order to show empathy (understanding of their situation) and to explain the potential benefits of the intervention. The lecturers then followed a structured program to introduce and role-model to the students the following Self-Regulated Learning strategies and skills: goal setting, time and study environment management, group work, problem-solving, effective reading and meta-cognitive self-regulation.

In total there were 12 contact sessions available in the semester and each session was three hours long. In each session students were provided with content knowledge and they were also introduced to SRL skills.

Action research

Action research is cyclical in nature and involves identifying a problem, such as an issue related to student learning; designing and implementing an action plan; collecting data of the action taken; reflecting on the plan and the data obtained; and then updating or modifying the plan. A new cycle can then be started to obtain further insights from the intervention (Cunningham, 2008, McNiff and Whitehead, 2009). Our intervention included two teaching cycles, with feedback obtained from students at the end of each cycle. Throughout the intervention, the plan was further adapted in response to our own reflections as lecturers of the course (Menter et al., 2011, Wilmot and Merino, 2015). The initial plan of action was designed to expose the students to the SRL strategies and skills identified as part of the overarching three components, Motivational, Behavioural and Learning strategies having an impact on academic performance. As part of the process we also attempted to improve our own approach to teaching part-time students given the specific challenges that they face.

Teaching cycles

The first teaching cycle consisted of six consecutive weeks of lectures. The sessions were structured to introduce students to a particular SRL skill during each session, as demonstrated by one of the lecturers while the other lecturer observed the class and made notes on how students reacted to the material presented to them. Table 1 contains the schedule that was prepared prior to the intervention to address key strategies and skills throughout the first teaching cycle.

Table 1: Intervention plan of action for the first teaching cycle

MOTIVATIONAL STRATEGIES	BEHAVIOURAL STRATEGIES	LEARNING STRATEGIES
GOAL SETTING ▪ Discuss benefits of the intervention *(session 1)* ▪ Encourage students to prioritise time in their study plan to attend lectures and actively participate *(session 1 and onwards)* ▪ Draw up a study plan and assess weekly thereafter if this had been implemented, is monitored and evaluated. Break down objectives in the plan into tasks *(session 2 and onwards)*	TIME MANAGEMENT ▪ Discuss part-time students' challenges *(session 1)* ▪ Give feedback on specific challenges identified in first questionnaire and discuss time management in the context of part-timers *(session 2)* ▪ Encourage students to use study plans and prioritise important tasks *(throughout)*	PROBLEM-SOLVING ▪ Approach content by looking at various "What-if" scenarios, e.g. "What if there is a normal loss? What if the inspection point was earlier? What if…" *(session 4 and onwards)*
SELF EFFICACY ▪ Illustrate relevance of material by applying theory to real-life situations *(throughout)* ▪ Build self-efficacy by showing students how to score the easy marks in every question and how to plan their answers and build an argument in order to get as many marks as possible *(throughout when going through tutorial questions and past*	SOCIAL ENVIRONMENT ▪ Share research on part-time challenges and discuss (initiate trust) *(session 1)* ▪ Have students introduce themselves build collegiality and a sense of belonging *(session 1)* ▪ Encourage students to consult and ask for help. Be available for consultation before class and via email *(throughout)* ▪ Ask students to do the prior period concept tests in	EFFECTIVE READING ▪ Engaging with course material by reading from the textbook and showing the students how to extract information *(session 2 and onwards)* ▪ "Build" a mindmap together for the section and encourage students to do weekly summaries in order to use their time more

papers)	groups of two; then discuss with another group and mark using solutions *(session 4)* ▪ Encourage participation through active learning and group work *(throughout)*	efficiently *(session 3)*
<u>EFFORT</u> ▪ Praise students when they attempt a question and show them how their knowledge is being constructed one building block at a time *(session 2 and onwards)*	<u>PHYSICAL ENVIRONMENT</u> ▪ Name tags and desks in a circle *(session 1)* ▪ New venue *(session 2 and onwards)*	<u>METACOGNITION AND SELF-REGULATION</u> ▪ Discuss self-regulation *(session 1)* ▪ Refer back to goals and assess achievement *(throughout)* ▪ Analyse and discuss variances calculated individually and then in groups to see how communication should/can be improved. Provide students with an extract of a poor discussion of variances and discuss how this could be improved “to get more marks” *(session 5)* ▪ Discuss personality styles *(session 5)* ▪ Go through test to reflect and improve *(session 6)*

The second teaching cycle also involved six weeks of lectures. The intention of the second teaching cycle was to introduce the learning and insights gained from the first teaching cycle and therefore the plan was to prepare for these sessions once the data from the first teaching cycle was analysed. Data was also collected after the second teaching cycle to reflect on the skills acquired by the students as well as our teaching approach.

METHODOLOGY

A qualitative approach was used to explore the impact of the intervention on the development of the SRL skills of the students. Data was collected from questionnaires and in the form of written and verbal feedback from group participants and from the lecturers' research diaries. The analysis of the data during the intervention allowed us to refine the intervention as the weeks progressed. It also served to help us determine the structure of the second research cycle. The following sources of data were used:

- Written feedback from students: Students were required to complete three questionnaires. The initial questionnaire was given during the first session, the next at the end of the first teaching cycle after their test, and the third at the end of the semester upon completion of the intervention. The first questionnaire was aimed at gaining an understanding of the background of the class by collecting student characteristics such as demographic information, challenges faced by the students, and their goals. The second questionnaire was mainly given to encourage students to reflect on their test, assessing areas where they went wrong and how they would change their approach going forward. The final questionnaire was used and analysed to obtain student feedback on the course.
- Following the students' first test upon completion of the first teaching cycle, a group feedback session was held which was recorded, transcribed and used to identify common themes through thematic content analysis (Fereday and Muir-Cochrane, 2006).
- Lecture observations: During each session the lecturer that was not delivering the content observed and recorded how the sessions developed and made notes of the interactions between the lecturer and the students.
- Lecturers' self-reflection diaries: Both lecturers involved in the intervention kept self-reflection diaries in which they recorded their reflections of how each session unfolded. The dairies were also used to keep a record of the planning sessions that took place prior to each lecture. The lecturer diaries and observations were analysed and used as reference for the research paper.

FINDINGS

The course as it was presented historically was designed for a full time student, with an average age of 21, who was able to pre-read lecture material before coming to class, attend all lectures with minimum participation, attempt all tutorial questions and do past papers long before the exam period. In contrast, the average age of the part-time students was 30, which is significantly higher than the students who study the course full time. The fact that the part-time students were older also meant that they were faced with additional commitments and responsibilities. Students therefore needed to manage their time much better. Given the additional demands on their time, the feedback obtained from the students indicated that they did not do any pre-reading before lectures, did not do many of the required practice tutorial questions and generally did not prioritise their studies or look at past papers until they went on study leave which was often only two days before the test or mid-year exam. Given the profile of the students in the study it was therefore clear that the introduction of the intervention was necessary, tailoring the course and material to meet the needs of the students and create an opportunity for active learning during the class.

The introduction of SRL skills throughout the semester was explained during the first session and 2 students were visibly resistant to the idea of having to learn skills that were not related to the content of the course. Students didn't seem to understand what we meant by "skills". One student wrote the following on his feedback form:

> "Please make sure that at least 50% comes from knowledge content, the rest can come from skills. I believe skills are not taught but born with. So those other students who study hard and do their tutorials deserve 50% pass mark. But I will do my best to achieve more skills."

First Teaching Cycle

Motivational strategies

Stepping into the first contact session we experienced negative and demotivated students. From the data gathered in the very first questionnaire it was clear that students were not only very negative towards the subject but also towards the lecturers, as most students were repeat students and had felt the lecturers had let them down in the past. When asked which challenges they faced with regards to the module in the past, these were some of the responses:

- "Have better teachers for a start."
- "I found the course difficult to pass and I become scared of it. I attempted to pass so many times that I gave up on completing my degree."
- "Other subjects were more prioritised as they were more understood and therefore had a more "guaranteed pass."
- "Transition from AccIII to FinAcc III and repeating ManFin is hard emotionally."

Once the students completed the first questionnaire detailing the personal and course related challenges that they thought might hinder their academic performance, a discussion ensued around the general challenges that all part-time students face. We steered the discussion and mentioned challenges identified from previous academic literature. The discussion was intentionally held to show a level of empathy towards the students' situation and to explain the potential benefits of the proposed intervention.

Right from the start in an attempt to address the motivational strategies, students were encouraged to draw up a study plan and to commit time during the week to dedicate to their studies. We asked them to assess weekly if they were implementing that plan. We also encouraged students to prioritise time in their study plan to attend lectures and actively participate. We decided that in order to make the most of the time available during lectures and to further encourage participation, the flip classroom model was used. In this model the majority of the theoretical principles would be taught by working through examples rather than taking the conventional approach of lecturing from slides and requiring students to work through questions after class.

A lot of time was spent encouraging students to attempt questions even if they weren't sure of their abilities. Slowly we tried to build their confidence by showing them how their knowledge was being constructed one block at a time (Bandura, 2011). While going through tutorial questions every week, we asked students to spend a few minutes planning their answers. We explained that they needed to practise reading the questions carefully as students tend to get nervous in test and exam situations and then miss out on easy marks, because they don't understand what the question requires of them. We wanted to ensure that students construct their answers well, in order to get as many marks as possible.

In the first questionnaire we also asked students to write down the final mark they were aiming for. Students understood that this was the goal they were working towards and that they had to stick to a plan to achieve this goal (Dembo and Seli, 2013). After the first test, we again asked students what marks they were expecting and what mark they were working towards. Students became aware of the fact that it was something that was within their control and they were able to put in the work to achieve that goal.

Behavioural strategies

During one of the first sessions, students were asked to take out their diaries and to commit a time during the week to spend on Management Accounting and Finance III, as it was clear from the first questionnaire that many students struggled to find the time for their studies.

22 students had originally indicated that they were struggling to find the time to study and practice questions during the week. After analysing the first questionnaire we gave feedback on the challenges specifically raised by the students and provided advice in terms of how to deal with some of the challenges mentioned. We set out to gain their trust and create a positive learning environment that not only encouraged participation but also made the students realise that we were on their side and wanted to see them succeed. We also told students that we were available for consultation via email and that we would also be available before class each week.

Being part-time students, the opportunity to interact with other students are limited and for many students it is a very lonely journey. All the students enrolled for the class were given a name tag and were asked to give a brief introduction including their name and background. The intention was to create a sense of collegiality from the start of the course, with the hope that students would interact, participate and learn from each other as well as from us. It was already clear at this point that some students were a lot more reserved than others. One student specifically, wanted to remain anonymous, refusing to give us her name to write on her nametag, while other students clearly enjoyed getting to know their peers.

Some simple logistical changes were introduced to make the class more open to participation and encourage a positive learning environment. Conventionally the desks in the classroom are arranged in rows, with all the students looking at the lecturer. This creates a typical environment for teacher-centered learning. During the first session, the desks were therefore deliberately arranged in a circle with students facing each other and the lecturers. From the third contact session going forward we were able to secure a boardroom to lecture in, with the intention of breaking away from the typical student-teacher-classroom environment and rather to simulate a working environment that many of the part-time students could relate to and could facilitate group work.

As participation during the lectures that followed improved, students were given more and more responsibility to prepare some material for each lecture. However, they often didn't do their homework from the previous lectures, using excuses such as the fact that they didn't have the questions when in fact the questions were available to them on an online portal. At that stage we felt like they were not yet taking responsibility for their own learning, as none of the students had even taken the trouble to send us an email asking for the questions or clarification in terms of where to find them. We had hoped that the effort we had put in up to that point would have somehow already have translated into students taking responsibility for their own learning.

During the fourth contact session students were encouraged to work together in groups. Students worked through prior concept tests and were then asked to discuss their answers with another group and also mark their attempt using the suggested solution. Some students were hesitant to work with other students initially, but the atmosphere in the class quickly changed when they realized they all had a common goal. Students clearly enjoyed the group work:

> *"I have definitely benefited from group work. It's much better to explain a topic to someone else and discuss it with them than having to do it alone."*

The students demonstrated improved behavioural strategies through better time management and appreciation of the change in the social and physical environments (Dembo and Seli, 2013).

Learning strategies

The first session was concluded with a discussion surrounding self-regulation and self-reflection and students were encouraged to spend time reflecting on the content and skills covered during each lecture, even if it meant reflecting on the session on a taxi ride home (Weinstein et al., 2011).

We noted early on that many students hardly use their textbook as they are used to studying from the slides given to them. However, we decided that the majority of the theoretical principles would be taught by working through examples and illustrating the application of principles whilst role-modelling SRL strategies and skills, not using any slides. As a result, students were encouraged to work through the content and make their own notes and summaries. This skill was role-modelled by us, showing the students how to do an overall summary of a topic using the textbook and adding notes once they have attempted tutorial practice questions. Students seemed to enjoy the class, and followed as we went through the information to extract the data that was relevant to the scenario. Even though many students did not have their textbooks with them, they actively read through the scenario, and we paused at points to highlight why information was important. It was noted in the weeks that followed that more students brought their textbooks with them to lectures, which was encouraging to see.

During the third session we gave each student a blank piece of paper and again encouraged them to do a summary or to build a mind map as we went through content and questions. We made our own summary on the board as an example. It was very encouraging to see the students taking the instructions seriously at that point and we could see the students adding data to their individual summaries throughout the class.

In the fourth session we introduced students to “What if?” scenarios. While working through the questions, we asked students how their approach and answer would change if we made small changes to the information given. Initially students were very unsure, but after a few examples they were able to come up with alternative solutions and the discussions that followed were very encouraging.

For the fifth session, standard costing, we analysed and discussed variances calculated individually and then students had to explain the results of their analysis in groups in order to work on their communication skills. We also provided students with an extract of solution containing a poor discussion of variances and discussed how this could be improved to gain more marks and to answer the question relevantly. Most of the students admitted that the way that they had studied standard costing in the past was by memorizing formulas as opposed to really understanding the principles. This had led to students having a very negative perception of standard costing as they had to “study so many formulas”. We attempted to teach the concepts and reasons behind the variances calculated and focused less on the formulas, in an effort for them to gain understanding of principles. When we did our reflection after the lecture we noted that the students seemed to have grasped the basic principles of standard costing.

During the final session before the first assessment opportunity, we had a session on coping strategies and stress management in a test or exam, which was presented by two teaching and learning experts. The session aimed to link the students’ personality styles to how they deal with anxiety, stress and problem-solving before and during tests, given that there is a strong correlation between academic tenacity and academic behaviour, and students’ specific personality traits (Dweck et al., 2011). Initially many of the students were resistant to the ideas presented, but after a short discussion more and more students engaged in the discussion.

> *“The personality styles part made me think a lot about my approach to studying and where I may be holding myself back.”*

After the first test students wrote in March, they were asked to complete an additional questionnaire relating to both their test and the intervention. It was evident that students were considerably more motivated and confident than the feedback obtained before the intervention. None of the students complained that the test was unfair or too hard. They all seemed to be taking responsibility for the mark they received. When asked how they felt after writing the test and after they received their mark, some of the student responses were as follows:

How did you feel after writing the test?

- "Feel like if I prepared for it I would have passed it."
- "Not well, because I didn't finish writing."
- "I felt like it was not a bad paper at all, it was fair."
- "I felt like I can make it."
- "Slightly confident and motivated. Peace of mind knowing the test was on the same level of testing as past papers. Thank you for the excellent lectures and the effort that is being put in for the part-timers."

How do you feel now after receiving your mark?

- "I need to work on exam technique and timing of answering questions."
- "Motivated – I must work harder."
- "It encourages me to study very hard."
- "I feel a bit disappointed, but am willing to move on and focus on getting a higher mark in the June exam."

Students were asked to refer back to the initial goal they had set for the module and to also consider the plan they had set in order to achieve that goal. It was clear that some students were happy with their approach so far, while other realised they had to go back to their plan and implement some changes. During the test review session we spent time going through each question with them, pointing out common mistakes and emphasising good exam technique. We showed them how to go through their own answers to improve performance going forward and to learn from their mistakes.

Academic outcomes

As the course progressed students attended lectures more regularly and participated more in the discussions. Even though students were engaging with the course material they were not doing their homework as we expected. We realised there was a big expectation gap between what we expected from students and the effort they were willing or able to put in.

We started the fourth session, process costing, by going through a sequential structure to answering process costing questions. Students appreciated the structure and tried to apply the proposed structure to the first few examples given. However, it seemed they battled to break down the question bit-by-bit, and instead wanted to attempt the entire problem at once. During the lecture we realised that even though process costing was also examined in the Management Accounting and Finance II syllabus, very few students had even a basic understanding of the topic. No-one referred back to notes prepared during their second year and many students seem to lack the confidence in their own ability and wanted to continuously confirm their understanding despite having gotten some of the answers correct.

During our reflection after the lecture we established that the students were not yet ready to move on from this topic as they were all very confused and frustrated during the session, and that we were potentially in a position to not only help them academically, but also gain the students' trust if we were willing a sacrifice a morning during the weekend to cement their knowledge of the principles in the section. Even though it was difficult and demanding for us as lecturers with other commitments, we arranged an additional contact session for the Saturday morning.

Students were clearly grateful for the effort from the lecturers' side. One student specifically mentioned that he only came to the class because he knew we would have given up our Saturday to help them and that he prepared well for the class because he didn't want to disappoint us. This indicated a change in their attitude towards us and the course.

After the Saturday session, students were a lot more motivated even asking how they could better prepare for the following lecture on standard costing. We gave them specific revision questions to work through, knowing the standard costing was a topic that was also covered in Management Accounting II. We also decided to develop a similar framework for standard costing with the intention of assisting the students to approach a question in a structured, conceptual manner as well in order to better facilitate the learning during the next lecture.

Despite our perceptions that the students were now motivated to work on their own, very few students had done the work we asked them to complete for the lecture. We again realised that students weren't yet taking much responsibility for their own learning outside of the classroom. The students could see we were disappointed and upon engagement with the class we were reminded that the main challenge part-time students' face is finding the time to study between work and family commitments. We therefore emphasized to them that they had to work extra hard and participate in each of the sessions as they were often not able to go and spend the required amount of time to work through the questions at home.

Going forward, it became clear that students were starting to take ownership of their own learning more and more each week. We were able to give them more responsibility during the lectures as the course progressed. Even though the initial atmosphere in class was negative, students were starting to realise that we wanted them to succeed. Their confidence in their own abilities grew and they felt their contributions in class were valued. We tried to teach them to learn from their mistakes and to always attempt a question, and in that way develop a growth mind-set.

Second Teaching Cycle

In response to the feedback obtained after the first teaching cycle, as well considering our own observations, we set out to focus specifically on exam technique in the upcoming teaching cycle. Furthermore, we deliberately incorporated more group work going forward, as many of the students had felt after the first cycle that participation would be increased if they were allowed to work in groups more often. Group work and active participation was needed in order to ultimately flip the classroom.

As the course progressed students were given more responsibility for preparing the material for the lectures so as to engage in group discussions. In many of the subsequent contact sessions we encouraged students to work together in groups and to struggle through a few shorter class tests which assessed concepts dealt with in the lecture. Even though they often initially struggled to answer the questions, the students worked together very well in groups with a willingness to communicate and engage with each other. They positively debated the issues at hand and could argue why they considered a certain point to be the case. We were encouraged to see an improvement in their level of engagement of the material.

At the start of the second teaching cycle, we gave each student a calendar for the six weeks remaining leading up to their exam. We asked the students to fill in all various subjects' exam dates and other important dates that they know of (work trips, family commitments, etc.). We again encouraged them to use this as a study plan going forward and to assess their progress weekly. Many students were nervous at the realisation that the exam was closer than they expected.

Throughout the semester we continued to spend a lot of time focusing on exam technique and showing students the benefit of only spending the available time on each of the required questions, and saving time by planning their answers, structuring their answers in a logical way and attempting to score the easy marks first. Students needed to understand that they were sacrificing marks in a subsequent question when spending too much time on a previous question. During one class in particular, we worked through a tutorial question to role-model the appropriate exam technique we expected them to master. We gave them the time allocated to each part of the question and asked them to write down their answers. Afterwards, we critically analysed their attempts in order to show them whether they would have been awarded marks. Students were motivated and positive and participated well in these active learning activities.

Final Lecture and Feedback

The final lecture was the perfect example of cooperative learning. There was a definite change in the students' confidence, attitude and skill levels. The class was divided into groups and we made sure each group had access to a textbook. We gave the students 20 minutes to prepare the information they needed to explain a strategic cost management technique, find a relevant practical example of its implementation and to give feedback to the class. Every group did a quick internet search to find a relevant example. The students were motivated and excited to really understand each tool allocated to them. We ran the lecture with a specific format in mind, which made the discussion around the tools flow logically. Students gave excellent explanations and relevant examples, which the other students found easy to understand. We warned them upfront that everyone had to listen to each other as we weren't going to re-lecture the content if it was correct. We would only add to the discussion where we felt it necessary and correct groups if they were not 100% accurate in their explanation. As a result of following this approach, the entire room was silent and everyone listened and engaged with the presenting group. Subsequently, some students came to tell us that if they were to get tested on this topic, they would do really well, merely as a result of the interactive nature of the lecture.

During the final lecture of the second teaching cycle, students were asked to provide feedback on their overall approach to the course and the changes they have implemented in their approach to their studies as a result of the intervention. We did not prompt any specific answers, merely stated that if students wanted to elaborate more, they were welcome to use the blank pages at the back.

Twenty-seven students completed the final feedback form and all of the students stated that they found the lectures helpful. Out of the 27 students that participated, 26 (96%) students even said they found the course enjoyable. Twenty-three (85%) students indicated that they had changed their study approach in response to the discussions and role-modelled examples done in class. We asked them in what way they had changed their studies and these were some of the responses:

- "In the sense that my attitude towards ManAcc is no longer negative and I keep up with lectures."
- "The way the lecture examples were tackled helped me with a technique to tackle tutorial questions and I intend to use it to tackle the exam. Breaking down a task."
- "I integrate the notes done in class with my own."
- "I pre-read in order not to arrive at class blank."
- "My approach to studying is now more focused on maximizing the productivity I get from the minimal hours I have to study as a part-time student and I try to do this by using similar approach to the one used in class."

Approximately 90% of the group said they enjoyed exposure to the different skills introduced, while 10 students (37%) mentioned that they benefited from learning and practicing to do questions under the time limits available:

- "I benefited from time management, like doing the tuts or past papers in the required time under exam conditions."

When asked if they had changed the way they plan their time and studies, 93% of students said yes and 6 (22%) students mentioned that they now have a study timetable and the majority of students indicated that they prioritise their studies better and they spend more time practicing questions.

Final thoughts from the students with regards to the course were:

- "Teaching style, giving exam technique during lectures, doing tuts as a group as well as having passionate lecturers, should all continue."
- "Continue bringing challenging exams and making the class interactive, but importantly being approachable."
- "Good to work through tutorials in class as we part-time students do not usually have this benefit."

- "My learning technique in terms of this course is way better than before as I am not afraid to tackle the difficult questions and finish them in the time provided."
- "My lecturers helped me overcome my fear of ManAcc and made me realise I can pass it. I have the knowledge, I just need to stay calm and work."
- "The way things went with regards to Management Accounting was the best experience."

CONCLUSION

Results suggest that role-modelling SRL strategies and skills in an active learning environment helps students to take responsibility for their own learning and leads to positive academic outcomes. Students benefited from the intervention in the following ways:

- Succeeding in changing their negative attitudes and making them more positive about their studies and the course. This was achieved by gaining their trust, making small changes to the delivery of the course and building their confidence by demonstrating their progress to them.
- In terms of learning strategies the students seemed to benefit the most from making summaries, practicing reading skills, working on specific exam techniques and being exposed to how their personalities influence how they approach assessments.
- Students were also given more responsibility to drive the learning process by themselves as the course progressed and this led them to take more responsibility for their own learning.

At the end of the intervention we were able to observe a big change in attitude and in the application of skills and as a result of this the last lecture was flipped successfully.

As lecturers and researchers we sometimes felt that the efforts that we were putting into the intervention were not bearing fruits. This was somewhat discouraging as a lot of energy and planning went into making sure that each session achieved a particular set of results. At the end however, we were pleased to see that even though it took longer than anticipated to see the expected changes, the students were in fact able to acquire more insight regarding their patterns of learning that were not beneficial, and to display positive academic behaviours. As researchers we have found the research process very enriching, not only in terms of what we have learned from the students, but also in terms of the insights that we have obtained to improve our own way of lecturing and structuring the courses we coordinate.

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EDU016 **EXPERIENTIAL LEARNING AS A METHOD TO ADDRESS THE EMPLOYER EXPECTATION GAP ON PERVASIVE COMPETENCIES IN AN UNDERGRADUATE TAXATION CURRICULUM**

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ABSTRACT:
Employers are looking for a new kind of 'professional' as a product of the university system: a graduate that not only displays technical competencies, but also has a wide range of pervasive competencies or soft skills. Current research on the topic has identified an employer expectation gap arising between the skills of graduates expected by employers, and the current skills of graduates delivered by universities. It is a widely recognised challenge for lecturers to facilitate learning based on appropriate learning theories, which would incorporate both technical and pervasive competencies. This article investigates a practical solution to facilitate the learning of pervasive competencies in an undergraduate curriculum in order to address the employer expectation gap. A case study research methodology, embedded in the experiential learning theory, is followed in the implementation of a practical assignment. Data was gathered through the completion of reflection questionnaires by a sample of future employers and students. The data reflects that both employers and students are of the opinion that completing a practical assignment embedded in the experiential learning theory can narrow the employer expectation gap on pervasive competencies. The article may be of benefit to lecturers and curriculum designers who are responsible for reviewing the curricula for professional degrees, considering a theoretical as well as a practical approach.

Key words:
Pervasive competencies, undergraduate accounting education, taxation education, experiential learning, employer expectation gap.

INTRODUCTION

In order to face the unique challenges of the 21^{st}-century work environment, employers of university graduates are searching for a new kind of 'professional' as a product of the university system. This 'new' graduate must not only display technical competencies but should also prove to be an asset to any business; owing to numerous pervasive (all-encompassing) competencies or soft skills she or he may have acquired. This employer expectation has been specifically researched for professional degrees such as accounting and taxation (Miller & Woods, 2000; Andrew & Higson, 2008).

The phrase, pervasive competencies, is used to refer to an all-encompassing set of skills or attributes that are widespread amongst a group of people (Oxford Online Dictionary, 2014). Pervasive competencies or skills are also known as generic skills, professional skills and soft skills, and includes for example communication and interpersonal skills, problem-solving skills, analytical and critical thinking skills, visual, oral and aural skills, judgement and synthesis skills. The term pervasive competencies is used in this article as it implies the term 'pervasive' – including both discipline specific technical skills and a broader range of soft skills; as well as the term 'competence'. In the context of higher education, competence is commonly viewed as the ability to perform a task to a defined standard with reference to a real-life work environment (IFAC, 2001). A competency-based approach to qualification specifies expectations in terms of learning outcomes, or what an individual can accomplish, rather than in terms of an individual's knowledge or capabilities (Boritz & Carnaghan, 2003).

A competence based approach to education is prevalent in many higher education degrees, specifically in so-called professional degrees, where the higher education training is part of a professional qualification. The focus of this article is on the financial sciences discipline, specifically the undergraduate taxation curriculum. At most of the prominent South Africa universities, an undergraduate taxation curriculum is offered as part of accredited qualifications prescribed by professional bodies in the financial sciences sector. The undergraduate taxation curriculum at accredited universities is largely influenced by the curricula based on competency frameworks as prescribed by the professional bodies, articulating into professional qualifications. The main professional bodies in South Africa that impact taxation education are the South African Institute of Chartered Accountants (SAICA), the South African Institute of Tax Professionals (SAIT), the South African Institute of Professional Accountants (SAIPA), and the Association of Chartered Certified Accountants South Africa (ACCA (SA)). The competency frameworks as prescribed by these major professional bodies are obtained throughout a student's university education as well as during post-graduation traineeships and include pervasive competencies. As proposed by SAICA for example, pervasive competencies include attributes such as ethical behaviour and professionalism, personal attributes such as being a life-long learner, and professional skills such as communicating effectively and efficiently (SAICA, 2014).

Accredited qualification through the above-mentioned professional bodies cannot be obtained without meeting the prescribed pervasive competencies. However, numerous studies in accounting education have identified and investigated an expectation gap between the competencies which employers require, and the competencies which are held by university graduates. Although these studies identified expectation gaps relating to theoretical knowledge, practical skills and pervasive competencies, the largest expectation gap identified and investigated relates to pervasive competencies. The studies have investigated the expectation gap from the point of view of the most important stakeholders, being the students, employers, professional bodies and academics (Barac, 2009; Coetzee & Oberholzer, 2009; De Lange, Jackling & Gut, 2006; Dixon, Belnap, Albrecht & Lee, 2010; Gammie, Gammie & Cargill, 2002; Howieson, 2003; Kermis & Kermis, 2010; McCarthy & McCarthy, 2006; Stainbank, 2010).

This expectation gap is a topic which had not only received attention in academic research, but also in practical discussions, as is evident from the theme of the Southern African Accounting Association (SAAA) and International Association for Accounting Education and Research (IAAER) 2015 Biennial Conference. The SAAA & IAAER conference brought together accounting academics from Africa and elsewhere to discuss education, research and the profession of accountancy under the theme "Our role as accountancy educators: Closing the GAP". The conference included a panel discussion specifically dedicated to the topic: "Global Accountancy Skills Shortage: The GAP between expectations of employers and graduates produced by universities" (SAAA, 2015).

Against this background, the challenge for accounting and taxation lecturers (and also lecturers from other disciplines) includes accountable ways of facilitating learning which would incorporate both technical competencies and a wide range of pervasive competencies (De Villiers, 2010; Hesketh, 2011; Stainbank, 2010). It has been advocated that, in order for graduates to meet the demands of future employers, a curriculum review is needed to facilitate an integrated learning approach, focussing specifically on the facilitation of pervasive competencies in order to be able to address the largest employer expectation gap identified (De Villiers, 2010; Low, Samkin & Liu, 2013).

Incorporating pervasive competencies into the curriculum to address the employer expectation gap would imply a shift from a traditional teaching and learning model to a culture of skills-based facilitative learning and student-centeredness that parallels a post-millennial social world in which new combinations of creative skills and abilities are increasingly in demand (McWilliam, 2008). Instead of only 'imparting knowledge' as per the traditional model, lecturers should, as part of their professional development, utilise learning theories in order to facilitate learning of the competencies proposed. The competencies as proposed by, for example, SAICA (2014) and the South African Qualifications Authority (SAQA, 2000) are embedded in numerous skills-based strategies of facilitating learning, such as constructivist learning (Von Glasersfeld, 2001), self-regulated learning and collaborative learning (Slabbert, De Kock & Hattigh, 2009), and experiential learning (Kolb, 1984), ensuring that it reflects authentic learning (Slabbert *et al.*, 2009).

The question arises how best to facilitate the learning of pervasive competencies at an undergraduate taxation level in order to address the gap between the competencies that graduates currently have and those expected by employers. In order to address this question, it is evident from the literature that the practical approach to address the employer expectation gap should be embedded in a learning theory to ensure that authentic learning is facilitated.

The experiential learning theory is defined as gaining knowledge through practical experience (Kolb, 1984). The benefit of the experiential learning theory is that students construct knowledge through a process of active experimentation and reflection, assisting them to apply theoretical knowledge to real-life scenarios. This real-world application has been shown to aid in developing the skills which employers are looking for (Kolb, 1984; Kreber, 2001; PWC, 2003; Rudman & Terblanche, 2011; SAICA, 2014). Due to the reported benefits, the experiential learning theory has been chosen by the researchers in this article as the most appropriate learning theory to be embedded in a practical approach to address the employer expectation gap relating to pervasive competencies.

The objective of this article is to establish whether a practical skills-based individual tax assignment, embedded in the experiential learning method can contribute to address the employer expectation gap. A case study research methodology was followed to design, conduct and evaluate a practical taxation assignment forming part of undergraduate accounting students' curriculum at a South African university. The assignment involves future employers and is specifically designed to address the facilitation of pervasive competencies, although in effect it also facilitates the learning of theoretical knowledge and practical skills. The article takes into account the pervasive competencies required by the professional institutions SAICA and SAIT, being the professional bodies who have the largest impact on tertiary taxation education in South Africa (FASSET, 2012). The research objective was evaluated based on feedback obtained from future employers and students involved in the assignment.

Previous studies as mentioned above have highlighted the importance of the inclusion of pervasive competencies in university curricula. However, uncertainty still exists as to how these competencies can be practically addressed within undergraduate curriculums toward addressing the employer expectation gap. The study will therefore be of benefit to lecturers and curriculum designers who are responsible for reviewing and updating the curricula for tax degrees and/or tax subjects forming part of an accounting degree and/or other professional degrees, considering a theoretical as well as a practical approach.

This paper starts with the theoretical framework that serves as background to the need for incorporating pervasive competencies into the undergraduate taxation curriculum and using experiential learning to facilitate learning of pervasive competencies towards addressing the employer expectation gap. This is followed by an outline of the research design to address the problem statement as defined in the introduction. The teaching context and assignment are discussed next, followed by a discussion of the results obtained. The article concludes with a summary of the findings and a discussion of limitations and directions for future research.

THEORETICAL FRAMEWORK

The National Development Plan of South Africa outlines three main functions of universities. "First, universities educate and provide people with high-level skills for the labour market. Second, they are the dominant producers of new knowledge, they assess and find new applications for existing knowledge, and they validate knowledge and values through their curricula. Third, they provide opportunities for social mobility and strengthen social justice and democracy, thus helping to overcome the inequities inherited from our apartheid past" (Department of Higher Education and Training, 2013). Higher education institutions like universities therefore appear to have an important role to play to provide focused training to meet scarce skill demands in order to achieve the positive outcomes of education.

South Africa has a critical skills shortage in management and professional positions, including accountants, lawyers, doctors and engineers (Adcorp, 2014). According to the FASSET (Finance and Accounting Sector Education and Training Authority) Scarce Skills Guide 2013/2014, the highest number of scarce skills positions was recorded for the 'Accounting, Bookkeeping, Auditing and Tax services' sub sector. Tax practitioners are specifically listed as the third highest professional occupation in which skills shortages are experienced (Fasset, 2013). Further, these shortages can largely be attributed to a dysfunctional educational system (Adcorp, 2014). Although there is a surplus of unemployed graduates, universities are producing graduates with qualifications that do not meet the demands of employers, and universities should focus on training to meet the scarce skills demand (Department of Higher Education and Training, 2013; Fasset, 2013). Therefore, at a national level, it has also been noted that there is an employer expectation gap, which will be discussed in more detail in the next section.

The employer expectation gap on pervasive competencies

Recent studies in accounting education have indicated that employer expectations are higher than the skills that graduates possess. This has been identified as the 'employer expectation gap'. This gap exists on certain technical skills as well as on pervasive competencies. The largest gap has been identified as the expectation gap on pervasive competencies (De Villiers, 2010; Miller and Woods, 2000; Doman and Nienaber, 2012).

In an assessment of the perceptions of trainee officers towards entry-level trainees regarding their communication, analytical and interpersonal skills and their computer abilities, it has been concluded that today's accountants are exposed to working environments where competencies go beyond the technical knowledge generally taught (Barac, 2009, Kavangh & Drennan, 2008). Previous research (Bancino & Zevalkink, 2007) has also indicated that a large portion of failed projects are due to a lack of pervasive competencies. Combining technical skills with non-technical skills improves the success rate of projects considerably and aids to sustainable competitive advantage and increased profitability (Bancino & Zevalkink, 2007; De Villiers, 2010).

At most South African Universities, the undergraduate taxation curricula is determined with reference to the knowledge competency frameworks of professional bodies, of which SAICA and SAIT are currently the main role players in the taxation education environment.

The South African Institute of Chartered Accountants (SAICA) is the regulatory body for accounting trainees aiming to become Chartered Accountants (CA). SAICA in turn is regulated by the South African Qualifications Authority (SAQA). Together they have prescribed a syllabus for the education of future CAs (SAQA, 2000). According to Coetzee and Oberholzer (2009) the SAICA syllabus promotes education, theoretical knowledge and practical experience to ensure all required competencies are met. Thus it can be said that SAICA assigns equal importance to both technical competencies and pervasive competencies.

The South African Institute of Tax Practitioners (SAIT) is a recognised controlling body for tax practitioners. SAIT's mission is to enhance the tax profession in education, compliance, performance and monitoring (SAIT, n.d.). SAIT does not have a separate list of prescribed pervasive competencies, as their pervasive competency framework is embedded in their technical competency framework. Their pervasive competency framework is however similar to that prescribed by SAICA. This was confirmed by an interview held with a member of the educational committee of SAIT.

There has been a significant amount of discussion on who has the responsibility to facilitate the pervasive competencies. In most professional qualifications, graduates are required to possess some pervasive competencies when graduating, therefore placing the onus of facilitation of these skills in the hands of the university lecturers (SAICA, 2014; SAIT, n.d.).

Facilitating the learning of pervasive competencies in university curricula

As discussed above, educators have come to recognise the importance of pervasive competencies in adding value to the skills of students and the expectations that future employers have relating to these competencies. The literature provides extensive evidence of the innovative teaching practices implemented by accounting educators internationally to address the facilitation of pervasive competencies. These include the use of techniques to foster a deep or higher order approach to learning (Samkin & Francis, 2008; Turner & Baskerville, 2013), processes to teach written and listening skills (Dale-Jones, Hancock & Willey, 2013; Stone, Lightbody & Whait, 2013), review of learning approaches adopted by students (Flood & Wilson, 2008) the use of case studies (Boyce, Williams, Kelly & Yee, 2001; Healy & McCutcheon, 2010), the accumulation of university credits through a work placement (Paisey & Paisey, 2010; Maelah, Aman, Mohamed & Ramli, 2013), and the development of an assessment framework for complex graduate attributes that go beyond technical knowledge (Sin & McGuigan, 2012). However, in spite of these innovations, the mainstream methods of teaching and learning in undergraduate taxation and accounting are still very much focused on a 20th-century work environment (McWilliam, 2008; Miller & Woods, 2000; Apostolou, Hassel, Rebele & Watson, 2010; Apostolou, Darminey, Hassel & Watson, 2010). Also, due to the fact that the data gathered in most accounting education innovation studies are student perceptions of the effectiveness of the intervention, it is still to be proved that these innovations address the employer expectation gap from the employers' perspective.

It appears as if educators are still unsure how to incorporate these pervasive competencies into their theoretical curricula (De Villiers, 2010). From an educational perspective, educators should be involved in continuous development to master new strategies and learning theories to facilitate leaning (Barnett, 2004; Slabbert *et al.*, 2009; Du Toit, 2008). Innovative teaching practices should be embedded in educational theory in order to assess the effectiveness of such practices. However, assessment cannot be seen as an add-on at the end of the learning process, it must be integrated with instruction. With reference to learning theories which can assist specifically with the incorporation of pervasive competencies into the curricula, the following has been identified:

- Constructivist learning: relates to learners constructing knowledge for themselves with the help of sensory input, not taking into account the knowledge standard set by the world; it thus conflicts with traditional learning theories (Hein, 1991);

- Interdisciplinary learning: learning through mimicking real-world situations (Wurdinger, 2005);
- Self-regulated learning: described by Paris & Paris (2001) as a process of taking control of and evaluating one's own learning and behaviour;
- Collaborative learning: a situation where two or more people learn, work and experience something together (Bruffee, 1993);
- Experiential learning: defined by Kolb (1984) as learning from direct and active experience by reviewing and reflecting on what was experienced.

After assessing the definitions above, the experiential learning theory was selected as it is considered the most appropriate for the specific outcome of the objective of this paper. The experiential learning theory is a more practical learning theory which requires the participants to review and reflect on what they have learned from the experience. Studies by McCarthy and McCarthy (2006) and Clark and White (2010) on the use of the experiential leaning method within the university business education programme concluded that implementing the experiential learning theory can specifically assist in the development of pervasive competencies in students. The experiential learning theory is discussed in more detail below.

Experiential Learning

This learning theory is defined as gaining knowledge through practical experience. It is visually demonstrated by the Experiential Learning Model (ELM) (Kolb, 1984) as illustrated in Figure 1.

Figure 2: Kolb's (1984) Experiential Learning Model

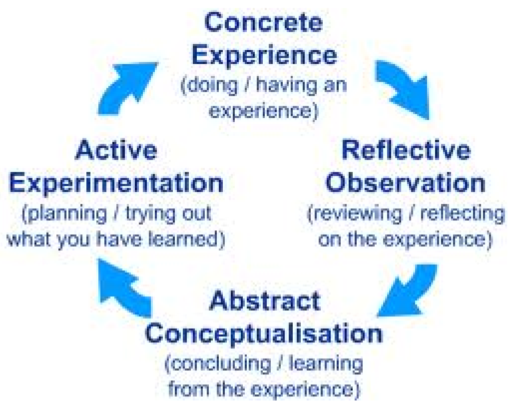

Figure 1 shows the four phases of the theory; the concrete experience relates to the student's active involvement in the experience. Reflective observation refers to the student's experience being reviewed and feedback being given so the student can reflect on what he or she actually did and how he or she did it. Abstract conceptualisation refers to the student realising, absorbing and reaching conclusions on the outcome of the reflection phase, in other words realising what he or she has actually learned from this process. The active experimentation phase relates to implementing that which the student has learned from the previous experience within a new experience (Kolb, 1984; McCarthy & McCarthy, 2006; Clark & White, 2010).

Dewey (1938) and Kolb (1984) both agree that education can only be accomplished by experience and reflection, and that knowledge can only be created by transforming experience. Kolb (1984) explains that the learning cycle can start at any of the four points of the model, and that it should be facilitated as a continuous spiral. Tennant (1997) indicated that the model helps to facilitate a framework of planning, teaching and learning activities. Educators should be cautioned that experiences alone are not experiential *per se.* The method is complete once the experience has been transformed through either reflection and/or action and all four phases have been addressed (Kreber, 2001; Chapman, McPhee & Proudman, 1995). With proper facilitation, by using a case study as research design, all four phases of the experiential learning theory can be implemented and skills for self-directed learning can be fostered where the student manages his or her own learning (Kreber, 2001; Moon, 2004)

Two major types of experiential learning are identified, namely field-based learning and classroom-based learning. Field-based learning, which was integrated into higher education in the 1930s, includes internship, practicums, cooperative education and service learning. Classroom-based learning includes role playing, games, case studies, simulations and presentations (Kreber, 2001; Moon, 2004). McCarthy & McCarthy (2006) note that not many business curricula at universities include an experiential programme as part of the course. There are some that strongly recommend the completion of an internship with the choice of participation as an alternative to the experiential programme. With the choice currently available, many students complete their studies with little experience related to their future careers. However in the South African context, training for a professional qualification at university still requires practical skills and pervasive competencies. Therefore it is necessary to find ways to incorporate the experiential learning theory into our curricula.

Based on the discussions above, considering the aim of the universities, the importance of pervasive competencies, the expectation gap identified and the importance of the need to apply more relevant learning theories, this study attempts to address the lack of pervasive competencies in new graduates by making use of the experiential learning theory. In order to do this, the research is based on a case study design approach that is discussed in the next section.

RESEARCH METHOD

A case study research methodology was selected as the most appropriate research methodology to address the research question in this article. Case study research is a qualitative research approach used to gain an in-depth understanding of a situation and the meaning thereof, taking into account the process, context and discovery (Merriam, 1998). The research implemented in this study is based on an assignment constructed from complex real-life situations and everyday experiences; it also focuses on gaining insight into whether the assignment is relevant in addressing the expectation gap identified. Thus an exploratory method was used to paint a conceptual scenario for problem-solving purposes (Yin, 1994).

Teaching context and case study design

In following the case study methodology, the experiential learning theory was facilitated through the implementation of an assignment into the curriculum of an undergraduate, introductory taxation course, attended by students majoring in accounting (towards the CA(SA) professional qualification) or financial sciences (towards other professional qualifications in the financial sciences). This is a year course, taken in the second year of a three year degree programme, and focus on the basic principles of the tax framework, the taxation of individuals, estate duty and donations tax. The course was attended by 1052 students in 2014, the year in which this study was conducted. Students majoring in accounting constituted 52% of this group, and students majoring in financial sciences constituted 48% of the group. The course is presented in both Afrikaans (22% of group) and English (78% of group). The assignment was only facilitated in English in order to simulate an authentic business environment. The average age of the students is 20 years.

In order to address the employer expectation gap, the assignment was designed to authenticate a real-life case study in line with the experiential learning theory, and facilitate both technical and pervasive competencies, with a strong focus on pervasive competencies. The aim of the assignment was to simulate the process of registering an individual for tax, completing the e-filing of an individual taxpayer and providing client feedback. Students had to work in groups of two. Each group received a letter from a client requesting the 'tax consultant' to register him/her as a taxpayer and complete his/her tax return for the appropriate year of assessment. The client provided some of the information necessary to complete the task (for example the IRP5), but there were some information missing. In order to obtain the missing information, each group had to schedule a meeting with the 'client' to request the outstanding information. The 'client' only provided the information if he/she were specifically asked for it. The 'client' was portrayed by a sample of future employers.

After the client interview, the students had to complete the form to register the client as a taxpayer, complete the clients' e-filing using a simulated e-filing program as well as provide the client with feedback relating to his/her tax matters. The assignment was facilitated after the students dealt with the technical topic during lectures. Students were prepared for the pervasive competencies facilitated through the assignment by two guest lecturer presentations. The first presentation was based on client liaison and professional skills, and was presented by the Head of Education at the South African Institute of Tax Professionals (SAIT). The second presentation was presented by a SARS official on the use of e-filing.

During the design of the case study, the researchers focussed on the pervasive competencies as included in the SAICA competency framework (SAICA, 2014). In reviewing the various competency frameworks as discussed in the literature review, the SAICA pervasive competency framework appeared to be the most comprehensive. It would be difficult to assess all the SAICA pervasive competencies within one assignment therefore only selective SAICA pervasive competencies were assessed in the assignment. Table 1 indicates the specific pervasive competencies (from the SAICA list of pervasive competencies) to be assessed as part of the assignment:

Table 1: SAICA pervasive competencies to be assessed within the case study assignment.

Nr	Reference to SAICA list	Pervasive Competency
1	1A-2	Acts competently with honesty and integrity
2	1A-3	Carries out work with a desire to exercise due care
3	1A-7	Maintains and enhances the profession's reputation
4	1A-8	Adheres to the rules of professional conduct
5	1B-1	Self-manages
6	1B-2	Demonstrates leadership and initiative
7	1B-3	Maintains and demonstrates competence and recognises limits
8	1B-4	Strives to add value in an innovative manner
9	1B-6	Treats other in a professional manner
10	1B-8	Works effectively as a team member
11	1B-9	Manages time effectively
12	1C-1.1	Gathering or develops information and ideas
13	1C-1.3	Identifies the needs of internal and external clients and develops a plan to meet those needs
14	1C-2.1	Analyses information or ideas
15	1C-2.2	Performs computations
16	1C-2.3	Verifies and validates information
17	1C-2.4	Evaluates information and ideas
18	1C-2.5	Integrates ideas and information from various sources
19	1C-2.6	Draws conclusions/forms opinions
20	1C-3.1	Identifies and diagnoses problems and /or issues
21	1C-3.2	Develops solutions
22	1C-3.3	Decides/recommends/provides advice
23	1C-4.1	Seeks and shares information, facts and opinions through written and oral discussions
24	1C-4.2	Documents in written and graphic from
25	1C-4.3	Presents information effectively
26	1C-5.1	Plans and manages projects
27	1C-5.4	Leads effective meetings
28	1C-6	Understands how IT impacts a tax advisors' daily functions and routines

Table 2 provides a description of each of the assignment requirements and how it pertains to the different phases within the experiential learning theory, as well as to which pervasive competency exposure is given. The pervasive competencies are linked by number as in Table 1.

Table 2: Assignment requirements mapped to experiential learning theory phases and pervasive competency exposure

Assignment requirements	Description of requirements	Assessment	Related experiential learning phase	Pervasive competency exposure
Preparation lecture attendance	Lectures presented by officials from practice on ethics in the workplace, professional behaviour (dress code, respect for superiors, time management), conflict management, how to obtain information from client, professional communication skills, client liaison and the use of e-filing.	A mark was awarded for lecture attendance.	Phase 1: Concrete experience	1; 2; 28
Client consultation/ interview	Students in groups of two interviewed future employers posing as clients to demonstrate their pervasive competencies and to obtain the additional information needed to complete the assignment. If students did not prepare for the interview, they would not have received all the necessary outstanding information. Preparation for the interview was therefore imperative. Employers gives feedback to the students on how to improvement their pervasive competencies.	Marks were awarded by the future employers directly after the interview. The assessment rubric was designed to include the assessment of the selected pervasive competencies and technical knowledge. Students would be penalised if they did not ask all of the relevant questions. They would also be penalised in rest of the assignment, as all other deliverables would be incomplete.	Phase 1: Concrete experience and Phase 2: Reflective observation	1; 2; 3; 4; 5; 6; 8; 9; 10; 11; 12; 13
Client income tax registration	With the information obtained from the consultation/interview, a client income tax	Completeness of the registration process was assessed by way	Phase 1: Concrete experience	1; 2; 3; 7

	registration was done in hard copy. The students had to do research on how to register an individual taxpayer for taxation and obtain the form from the South African Revenue Services (SARS) website.	of a rubric.		
Completion of client tax return	With the information obtained from the consultation/interview the client's income tax return was generated, completed and submitted electronically on an e-filing simulation program.	Accuracy was assessed by the electronic programme (an external service provider).	Phase 1: Concrete experience	1; 2; 3; 4; 5; 14
Calculation and client feedback	The client's tax was calculated and the client was given written feedback on the tax amount due to or payable by the client.	Completeness, accuracy and professional communication was assessed by way of a rubric	Phase 1: Concrete experience	1; 2; 3; 4; 5; 7
Reflection questionnaire	The reflection questionnaire was completed in electronic format. Students had to reflect on all phases of the assignment.	Mark was awarded for completion.	Phase 3: Abstract concept-tualisation	1; 2; 4; 7; 11; 14

Selection of case study participants

In this study the target population is undergraduate taxation students and future employers of these students. The participating students were the group of students as described in the teaching context above. This was a convenience sample as the group was easily accessible by the researchers. The participating future employers who acted as 'clients' during the interviews were representatives from future employers of graduates majoring in accounting or financial sciences, with taxation as one of their subjects. Invitational e-mails were sent by the researchers to contacts at large, medium and small auditing and accounting firms registered with SAICA and SAIPA, National Treasury, Lexis Nexis, SAIT and SARS, situated in the Gauteng province. A convenience sample was gathered by approaching 14 employers who had previously shown interest in collaborating with the university, some of whom the researcher knows personally.

The case study assignment takes into account many different facets of technical and pervasive competencies, which were fully disclosed to the participating employers through e-mail communication and on-the-day training for the interview. The training included a full description of the assignment. The documents that were made available to students were also made available to the future employers so that they had a good understanding of the assignment and applicable assessment criteria.

DATA COLLECTION

Two data collection instruments were used in this study: a questionnaire completed by the employers who posed as clients and a reflection questionnaire completed by the participating students as part of the 'abstract conceptualisation' phase of the experiential learning theory. Both of these questionnaires listed the SAICA pervasive competencies as facilitated in this assignment (refer Table 2) and asked both students and future employers to rate on a 5-point likert scale whether they are of the opinion that the selected skills have been facilitated. The data is analysed in the format of the questionnaires. Completion of the questionnaires were voluntary and permission was requested from participants to use the data for academic purposes. Ethical approval for the study was granted by the Faculty Research Committee.

The questionnaires completed by the employers were designed to obtain their opinion on whether the implementation of the practical assignment embedded in the experiential learning theory could contribute to increasing the students' pervasive competencies, thus narrowing the expectation gap identified by employers. After interviews with students, the employers completed a reflection questionnaire giving their views and inputs on whether the assignment addressed some of the pervasive competencies that graduates lack. The evaluations and comments were then captured onto a spreadsheet to be analysed.

The reflection questionnaires completed by the students were designed to give them the opportunity to reflect on what they had learned and gained from the experience. Reflection is a key component of the experiential learning theory. After submission of the assignment, and once they received feedback from the employers ("clients"), the students completed the reflection questionnaire. The student questionnaires were completed electronically on the learning management system of the University (BlackBoard) and then exported to an Excel spreadsheet to be analysed.

DATA ANALYSIS

By making use of a Likert scale reflection questionnaire, numerical values are given to the questions for analysis purposes. A summary of the data was captured onto an Excel spreadsheet for descriptive statistical analysis using Microsoft Excel.

The validity and reliability of the data have a direct effect on the validity and reliability of the conclusions made in the study. Researcher bias relating to the design of the questionnaire was addressed through the fact that the questionnaire was piloted and reviewed after implementing a pilot project in the previous academic year. The questionnaire was also reviewed by experienced academics. Participant bias was addressed by explaining the research objective to the participants in detail to ensure they understand the effect of their answers to the questionnaire.

This section analyses the data obtained from the reflection questionnaires completed by both the employers and the students who participated in the case study. Information is provided on the sample representatives for employers and students in order to establish applicability in different environments. Tables are provided that give descriptive statistics on the outcome of the questionnaires, which are then analysed to determine if certain trends are perceptible.

Employers

As described in the previous section, e-mails were sent to future employers to invite them to participate in the study on a voluntary basis. Of the 18 future employers contacted, eight responded and sent various representatives, as shown in Table 3. The employers used in the sample are representative of different-sized auditing and accounting firms registered with SAICA and SAIPA, representatives of the University of Pretoria's Taxation Department and also a representative of Lexis Nexis. The representative employers are mainly situated in Pretoria.

Table 3: Employer sample description

Participant	Company	Gender	Job Title
1.	KPMG	Female	Tax recruiter
2.	KPMG	Female	Tax manager
3.	Deloitte	Female	Tax recruiter
4.	Ernst & Young	Female	Tax manager
5.	Ernst & Young	Female	Tax manager
6.	Calculus	Female	Audit manager
7.	Calculus	Male	Audit partner
8.	Calculus	Male	Audit manager
9.	BizzAccounting	Female	Owner
10.	BizzAccounting	Female	Tax manager
11.	SizweNtsalubaGobodo	Male	Audit manager
12.	SizweNtsalubaGobodo	Male	Audit manager
13.	Lexis Nexis	Male	Compliance relations
14.	University of Pretoria	Female	Lecturer
15.	University of Pretoria	Female	Junior lecturer

Table 4 reflects the he percentage distribution of the ratings obtained from the employer's reflection questionnaires obtained from the various employers who participated in the interview process posing as potential clients. The data obtained from the questionnaires was rated based on the Likert scale.

Table 4: Employer reflection questionnaire feedback

		Strongly disagree	Dis-agree	Neutral	Agree	Strongly agree
	By completing this assignment, students are likely to have gained the following skills:					
1	**Technical Knowledge**	**Percentage (%)**				
1.1	Improved technical knowledge of the topic: Individual Taxation	0.0	0.0	5.9	35.3	58.8
1.2	Improved technical knowledge of the topic: Fringe Benefits	0.0	0.0	11.8	41.2	47.0
2	**Practical Skills**	**Percentage (%)**				
2.1	Registering an individual taxpayer for tax	0.0	0.0	0.0	47.1	52.9
2.2	Completing the e-filing of an individual taxpayer	0.0	0.0	5.9	47.1	47.0
3	**Pervasive Competencies (Soft Skills)**	**Percentage (%)**				
3.1	Acts competently with honesty and integrity	0.0	5.9	23.5	29.4	41.2
3.2	Carries out work with a desire to exercise due care	0.0	0.0	12.5	50.0	37.5
3.3	Maintains and enhances the profession's reputation	0.0	6.3	12.5	37.5	43.7
3.4	Adheres to the rules of professional conduct	0.0	0.0	11.8	47.1	41.1
3.5	Self-manages	0.0	0.0	11.8	58.8	29.4
3.6	Demonstrates leadership and initiative	0.0	5.9	11.8	52.9	29.4
3.7	Maintains and demonstrates competence and recognises limits	0.0	0.0	17.6	52.9	29.5
3.8	Strives to add value in an innovative manner	0.0	5.9	11.7	41.2	41.2
3.9	Treats others in a professional manner	0.0	0.0	5.9	52.9	41.2
3.10	Works effectively as a team member	0.0	0.0	0.0	52.9	47.1
3.11	Manages time effectively	0.0	0.0	6.3	50.0	43.7
3.12	Gathers or develops information and ideas	0.0	0.0	5.9	35.3	58.8
3.13	Identifies the needs of internal and external clients and develops a plan to meet those needs	0.0	0.0	11.8	35.3	52.9
3.14	Analyses information or ideas	0.0	0.0	11.8	41.2	47.0
3.15	Performs computations	0.0	0.0	35.3	41.2	23.5
3.16	Verifies and validates information	0.0	0.0	5.9	58.8	35.3
3.17	Evaluates information and ideas	0.0	0.0	5.9	64.7	29.4

3.18	Integrates ideas and information from various sources	0.0	0.0	5.9	35.3	58.8
3.19	Draws conclusions/forms opinions	0.0	0.0	5.9	52.9	41.2
3.20	Identifies and diagnoses problems and/or issues	0.0	0.0	5.9	64.7	29.4
3.21	Develops solutions	0.0	0.0	29.5	52.9	17.6
3.22	Decides/recommends/provides advice	0.0	0.0	18.8	43.7	37.5
3.23	Seeks and shares information, facts and opinions through written and oral discussion	0.0	0.0	17.6	41.2	41.2
3.24	Documents in written and graphic form	0.0	13.3	40.0	26.7	20.0
3.25	Presents information effectively	0.0	0.0	17.6	47.1	35.3
3.26	Plans and manages projects	0.0	0.0	17.6	47.1	35.3
3.27	Leads effective meetings	0.0	0.0	5.9	41.2	52.9
3.28	Understands how IT impacts a tax advisors' daily functions and routines	0.0	0.0	35.3	29.4	35.3

The high percentages in Table 4 indicate that the employers mostly either agree or strongly agree that the facilitation of the assignment based on the experiential learning theory increases the students' competencies by simulating real-world exposure to the various technical, practical and pervasive competencies listed. There are however exceptions, where the employers have a more neutral opinion of the effectiveness of the assignment addressing the competencies: examples are number 3.15, "perform computations", number 3.24, "documents in written and graphic form" and number 3.28, "understands how IT impacts a tax advisor's daily functions and routines".

Although the assignment and its outcomes were explained to the future employers, they were not physically exposed to these areas of the assignment in the same manner in which they were exposed to the interviewing process, and this may be a reason for the lower ratings. In addition to the interviewing process the assignment required the students to calculate the individual taxpayer's tax liability or refund, draft the individual taxpayer a letter relating to the outcome of the calculation and submit the individual taxpayer's income tax return.

Due to the convenience sample of employers contacted to voluntarily participate in the case study, the participants may have given overly positive responses as the employers were acquainted with the researcher. The researcher is of the opinion that this bias may have been mitigated by the professional nature of the employers. However, the researcher acknowledges that an independent, random sample of employers may yield different results.

From the analysis above it appears that the employers found the case study to be beneficial in achieving pervasive competencies through an assignment based on the experiential learning theory. However, according to the experiential learning theory model, it is important for students who participated in the case study to reflect on the experience and conceptualise what they learned through the experience. This is covered in the analysis of the students' questionnaires.

Students

As mentioned in the previous section, the students had to complete a reflection questionnaire at the end of the assignment which relates to one of the phases of the experiential learning model. Students received 10 marks out of 100 on completion of the reflection questionnaire. Students were informed that the responses would be used for research and they could choose whether their responses could be utilised or not. Table 5 indicates the demographics of the students who participated in the case study; it should be noted that of the 1 052 students registered for BEL200, only 908 (86%) completed the questionnaire.

Table 5: Student description

	Sex		**Language**		**Year of study**		**Total**
	Male	Female	Afrikaans	English	First time	Repeat students	
Percentage of participatory students	42%	58%	24%	76%	91%	9%	86%

Table 6 shows the percentage distribution of the ratings as obtained from the student's feedback questionnaires. The questions were rated based on the 5-point Likert scale.

Table 6: Student reflection questionnaire feedback

		Strongly disagree	**Dis-agree**	**Neutral**	**Agree**	**Strongly agree**
	By completing the assignment, I have gained the following skills:					
1.	**Technical Knowledge**	**Percentage (%)**				
1.1	Improved technical knowledge of the topic: Individual Taxation	5.03	0.36	4.44	42.8	47.37
1.2	Improved technical knowledge of the topic: Fringe Benefits	4.37	1.25	11.0	51.5	31.88
2.	**Practical Skills**	**Percentage (%)**				
2.1	Obtaining client information	5.85	0.88	5.62	33.8	53.85
2.2	Registering an individual taxpayer for tax	5.93	0.59	6.48	41.7	45.30
2.3	Completing the e-filing of an individual taxpayer	4.29	2.02	10.2	45.5	37.99
3.	**Pervasive Competencies (Soft Skills)**	**Percentage (%)**				
3.1	Acts competently with honesty and integrity	4.66	0.74	4.34	31.1	59.16
3.2	Carries out work with a desire to exercise due care	3.17	0.30	6.81	37.7	52.02
3.3	Maintains and enhances the profession's reputation	3.18	1.04	5.54	41.1	49.14

3.4	Adheres to the rules of professional conduct	3.69	0.60	5.99	38.8	50.92
3.5	Self-manages	1.98	0.89	11.1	43.7	42.33
3.6	Demonstrates leadership and initiative	2.87	0.66	12.3	45.2	38.97
3.7	Maintains and demonstrates competence and recognises limits	1.54	1.54	11.7	51.9	33.32
3.8	Strives to add value in an innovative manner	3.39	1.10	19.1	44.5	31.91
3.9	Treats others in a professional manner	3.46	0.67	4.29	30.7	60.88
3.10	Works effectively as a team member	2.57	0.66	4.96	33.3	58.51
3.11	Manages time effectively	2.13	1.62	12.5	42.6	41.15
3.12	Gathers or develops information and ideas	2.36	1.18	9.39	49.5	37.57
3.13	Identifies the needs of internal and external clients and develops a plan to meet those needs	1.47	2.13	15.0	50.4	31.00
3.14	Analyses information or ideas	1.84	0.73	5.91	53.5	38.46
3.15	Performs computations	0.95	0.66	14.8	52.4	31.19
3.16	Verifies and validates information	2.08	0.88	7.48	49.8	39.76
3.17	Evaluates information and ideas	2.36	0.52	9.19	54.2	33.73
3.18	Integrates ideas and information from various sources	2.51	1.18	8.96	48.7	38.65
3.19	Draws conclusions/forms opinions	1.46	1.26	9.84	52.3	35.14
3.20	Identifies and diagnoses problems and/or issues	2.06	0.66	12.6	52.9	31.78
3.21	Develops solutions	1.48	0.96	11.4	50.9	35.26
3.22	Decides/recommends / provides advice	1.33	1.12	11.4	50.7	35.45
3.23	Seeks and shares information, facts and opinions through written and oral discussion	2.00	0.66	7.55	51.7	38.09
3.24	Documents in written and graphic form	1.33	2.66	14.7	53.3	28.01
3.25	Presents information effectively	1.77	0.88	5.45	53.5	38.40
3.26	Plans and manages projects	2.36	2.00	10.4	50.8	34.44
3.27	Leads effective meetings	2.58	1.92	13.2	48.9	33.40
3.28	Understands how IT impacts a	2.43	1.54	12.5	42.9	40.63

	tax advisor's daily functions and routines					

From the percentages in Table 6 it can be deduced that the students mostly either agree or strongly agree that by participating in the assignment they have gained exposure to and increased their skills in the competencies listed in the table. A low percentage of students were of the opinion that they had gained minimal to no exposure or skill from participating in the assignment. The positive feedback from the students can be validated by the students' responses to the open-ended question requesting additional comments relating to the assignment (randomly selected two examples for illustrative purposes only):

> "I didn't enjoy the assignment, mainly because we had to get out of our comfort zone. We as students are not use to doing these kind of assignments. But at the end I realized how important it is to develop communication skills and not only to know the theory of tax but know how to apply your knowledge in the "real world". Thank you for preparing us by giving us these kind of assignments."

> "Assignment 3 really gave me an idea of what the job of a tax practitioner entails. I appreciate the fact that we also got the chance to interact with people directly from the working environment out there. Working together with my team member also helped me to improve my skills and we could discuss the problems we were confronted with. I also learned a lot about professionalism."

CONCLUSION

It is the aim of university educators to provide the global employer market with graduates who have a high level of theoretical knowledge, practical skills and pervasive competencies – graduates who, in other words, are deemed employable. It is known from previous studies (Miller & Woods, 2000; Albrecht & Sack, 2000; Howieson, 2003; Barac, 2009; Coetzee & Oberholzer, 2009; De Villiers, 2010), that having pervasive competencies is deemed as important as having theoretical knowledge and practical skills when employing a graduate. However these studies also indicated that employers deem there to be a substantial lack of pervasive competencies among recent graduates (Kavangh & Drennan, 2008).

It is thus evident that pervasive competencies are not sufficiently facilitated at universities; thus educators must implement suitable learning theories through which to facilitate the teaching and learning of pervasive competencies within a tax curriculum so that students demonstrate more of these competencies.

For the purposes of this study the experiential learning theory was selected, which is defined as gaining knowledge through practical experience (Kolb, 1984). The main aim of this study was to determine if a practical case study assignment embedded in the experiential learning theory can contribute to narrowing the gap identified between the expectations of employers and the output of university graduates regarding training and experience on pervasive competencies.

This study concludes that both employers and students are of the opinion that the implementation and completion of such an assignment can narrow the expectation gap on pervasive competencies. This type of case study assignment thus has practical relevance, as it can assist educators in facilitating student learning of pervasive competencies within an undergraduate curriculum. The case study assignment also has theoretical relevance as it adds to the body of knowledge on addressing the expectation gap.

The researchers acknowledge that the study has certain limitations and therefore provides many avenues for future research: A convenience sample of employers and students were used. It is possible that an independent, random sample of employers and students may yield different results, and therefore the research could be extended to include more independent random employers and students. The research was also limited to one specific learning theory and thus can be extended to include other learning theories to determine if applying them to training can address the expectation gap of employers on pervasive competencies (a delimitation of the study). The research period was restricted to one year and so the fourth phase of the experiential learning theory, the active experimentation phase that relates to implementing that which the students had learned from the previous experience within a new experience, could not be evaluated. The study could thus be extended to evaluate the same type of case study embedded in the experiential learning theory within the students' third year of study to determine how students manage the fourth phase. The quantitative responses were only analysed using descriptive statistics and the researchers acknowledge that additional statistical analysis could improve the conclusions drawn. Due to the exploratory nature of the study, additional variables to complete additional statistical analysis were not gathered by the instruments used. As part of the reflection process, students and future employers were asked to write additional comments on their experience of the assignment as an open-ended response. The analysis of the qualitative responses was not part of the scope of this study. Randomly selected extracts were merely provided as examples. A suggestion for future research would be to include additional variables in the data collection instrument and to analyse any qualitative data.

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EDU019 **THE MINDSET TO SUCCEED: OVERCOMING ACADEMIC FAILURE**

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ABSTRACT:

Drawing on narrative data from a case study, the researchers recount the academic journey of a Bachelor of Accounting Science degree student and explore the noncognitive factors adopted by her in order to overcome academic failure. The aim of the research is to uncover insights into academic resilience emanating from the adoption of learning or growth mindset in the face of failure, and the role that educators can play in the advancement of such a mindset. First, literature reporting on the role and function of noncognitive factors, with particular focus on a learning or growth mindset, in informing pedagogy is synthesised. Thereafter the role and function of a learning or growth mindset in the student's academic journey is illustrated. The value of cultivating this mindset is demonstrated in this case study. Implications for teaching and learning include the following. First, the learning mindsets which people adopt affect the goals they pursue, the responses they have to difficulties, and how they ultimately succeed (or not) at university, work and life. Second, a change in mindset is difficult but not impossible. Other individuals can aid this process by the type of feedback they give, and the mindsets that they themselves role model. Finally, the brain, with sustained effort, can grow and change overtime. Teaching people about self-theories in relation to the brain's malleability can help them to change the mindset that they hold and thus how they respond to challenges and setbacks. With greater knowledge and understanding of the role of noncognitive factors in teaching and learning, and support from educators, students experiencing academic failure can be inspired to view 'failure' as a valuable learning process towards academic success, rather than the end of an academic journey.

Key words:
Tertiary Accounting Education, student agency, learning or growth mindset, academic success

INTRODUCTION

Recent trans-global research into student-experience pertaining to alienation and vulnerability has shown this to be a common factor amongst all students: particularly so for many first-generation university students as they enter the middle-class environment of higher education (Christie, Tett, Cree, Hounsell, & McCune, 2008; Mann, 2008). However a number of issues specific to the South African context have placed black working-class and rural learners in South Africa in situations of acute risk of alienation, vulnerability and failure (Luckett & Luckett, 2009; Pillay & Ngcobo, 2010; June Pym & Kapp, 2013; Smith, Pym, & Ranchhod, 2012). Such issues include 'the dislocation of conventional family structures, the breakdown of the culture of learning and teaching in schools, and violence and conflict in society; all of which are legacies of South Africa's pre-1994 Apartheid system of government'(June Pym & Paxton, 2013). For many students (and their families) higher education is seen as the only way out of the cycle of poverty and disempowerment. However, their entry into tertiary institutions, away from home and the support of family and the familiar often produces intense loneliness and a loss of self-esteem and purpose. This is often compounded in the face of academically challenging courses for which many students may be underprepared (Luckett & Luckett, 2009; June Pym & Paxton, 2013; Smith et al., 2012).

How do young black (rural or working class) students respond to academic failure under such challenging conditions? Do they remind themselves that they are intelligent and capable, put their heads down and work not only harder but also smarter? Or do they lose heart, give up, drop out and/or blame others or circumstances? The purpose of this paper is to explore (through means of an exploratory case study) these different patterns of response (otherwise understood as the thoughts, feelings, actions and judgements comprising growth or fixed mindsets (Dweck, 2017) and the resultant effects when adopted by a Bachelor of Accounting Science student.

Self-Theories: Theories on Self-motivation and Intelligence

Central to the acquisition of the skills and strategies of self-regulated learning (SRL) associated with academic success, is self-motivation or drive (Dembo & Seli, 2013; Luckett & Luckett, 2009; June Pym & Kapp, 2013; Schunk & Zimmerman, 2012; Zimmerman & Schunk, 2008). When students are motivated, the prospect of them devoting the necessary time and energy to learn and apply appropriate SRL skills is far higher (Zumbrunn, Tadlock, & Roberts, 2011). The level of motivation of students is influenced by their self-efficacy beliefs or the self-theories they hold. To hold strong self-efficacy beliefs means to be confident in one's ability to complete tasks or to achieve particular goals, regardless of natural talent (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996; Dembo & Seli, 2013; Duckworth et al., 2007; Dweck, 2017). Educators have an important role to play in this regard as they can lay the foundational support that students need to increase their self-efficacy beliefs (Bandura et al., 1996). But how can educators help foster self-motivation and drive in their students?

Carol Dweck, a long term Professor of Psychology at Stanford University and researcher into theories on self-motivation and intelligence, believes that part of the solution lies in convincing students that they actually *can* improve. Dweck describes how people's self-theories - the beliefs they hold about themselves and the nature of intelligence - create different psychological realities that comprise a variety of thoughts, feelings, actions and judgements. She, along with a number of other researchers into self-theories and learning outcomes, contends that these beliefs can shape a student's perception of what can be influenced versus what is out of the student's control (Bandura et al., 1996; Blackwell, Trzesniewski, & Dweck, 2007; Chiu, Hong, & Dweck, 1997; Dweck, 2006, 2012; Dweck, Mangels, Good, Dai, & Sternberg, 2004; Siegel, 2015b; Zadina, 2014).

According to Dweck (2017), students can be placed on a continuum corresponding with their implicit views of where academic ability comes from. Students who believe their academic success is based on innate ability have a 'fixed mindset' or hold an 'entity' theory of intelligence. Others, who believe their academic success is based on hard work, learning and perseverance are said to have a 'growth mindset' or hold an 'incremental' theory of intelligence. Students may not necessarily be aware of the self-theories from which they are operating but this can be detected in their behaviour, particularly with regard to their reaction to failure. Students with a fixed mindset fear failure because it would appear to reflect negatively on their basic abilities; students with a growth mindset don't mind or fear failure as much because they realize their performance can be improved and that learning emanates from failure. These two theories play an important role in all aspects of a student's life. Dweck argues that the growth – incremental – mindset will allow a student to live a less stressful and more successful academic life (Blackwell et al., 2007; Chiu et al., 1997; Dweck, 2017; Dweck, Chiu, & Hong, 1995; Paunesku et al., 2015; Romero, Master, Paunesku, Dweck, & Gross, 2014).

Although Dweck (2017) believes that people's implicit theories of intelligence (their self-theories) comprise fundamentally either an entity or incremental theory, she maintains that it is possible to hold a mixture of the two theories or to hold an incremental theory in one domain (such as writing ability) and an entity theory in another domain (such as mathematics) or vice versa. Nonetheless she firmly contends that the self-theory that is held in a particular domain affects motivation in that area, including how the person responds to setbacks (Dweck & Master, 2008). Research has also shown that self-theories about intelligence tend to be relatively stable over time, with students consistently preferring one theory over the other, and that despite entering high school or university with equal scores, people holding an incremental theory do better in their test scores over time when compared to those holding an entity theory (Robins & Pals, 2002). Longitudinal studies have also shown that the self-esteem of people holding an incremental theory did not decline over time while the opposite was shown to be true for those people holding an entity theory (Blackwell et al., 2007; Dweck, 2006; Paunesku et al., 2015; Romero et al., 2014).

Motivational Framework Stemming from the Two Self-Theories

These two distinct self-theories direct students' thoughts, feelings and actions in opposite directions with regard to the following fundamental elements: a) the setting of goals; b) responses to failure; c) attitudes towards academic effort; and d) strategies employed in the learning process (Dweck & Master, 2008).

The Setting of Goals: Entity vs Incremental Self-theories

First, each theory leads to the creation of different goals (Blackwell et al., 2007; Robins & Pals, 2002). Entity theorists tend to choose 'performance goals' over 'learning goals 'in order to obtain positive judgements and avoid negative judgements about their ability (i.e. confirm their ability). Incremental theorists, on the other hand, tend to create 'learning goals'. This is because they believe that intelligence is malleable and can be improved. These students set goals which are about subject mastery and competence, i.e. how well the principles and concepts have been mastered and the application thereof. Students adopting performance goals value 'looking good' or appearing competent, while students with learning goals value learning (Dweck, 2006).

Responses to Failure

Dweck and her collaborators (Blackwell et al., 2007; Dweck, 2006; Dweck et al., 2004) have shown that students holding an entity theory tend to respond to failure with a 'helpless' response, while students holding an incremental theory tend to respond to failure with a 'mastery' response. If a student believes that intelligence is fixed while also believing that intelligence can be measured, then failure for that student will mean that they are indeed unintelligent. The resultant effect is usually one of a feeling of 'helplessness', which in turn leads to the student giving up, dropping out, blaming others or circumstances , and/or trying to feel superior to his/her fellow students in some other way (Dweck & Master, 2008).
Studies, by Blackwell et al (2009) and Nussbaum and Dweck (2008) have demonstrated that as a result of the disempowering nature of an entity theory failing or underperforming students become less self-motivated, less enthusiastic about the subject matter they are attempting to study, and more anxious. This in turn results in less effort being applied to their studies. In fact, for some students, having failed and thus demonstrated their lack of intelligence or academic ability, the only way out of such a situation is to resort to other (counterproductive) methods of coping with failure, such as lying, cheating or identifying with students who performed even worse than they do (Blackwell et al., 2007; Nussbaum & Dweck, 2008).

Because students holding an incremental theory believe that intelligence is malleable and can improve with hard work and effort, they find failure challenging and view it as part of the learning process. For these students, failure acts as feedback about how well they are doing. People displaying a mastery response don't show a decline in self-esteem and will persevere in the face of the challenge. By attributing failure to their own lack of effort rather than a lack of ability, these students are able to take control of the situation and set themselves up for a better outcome (Dweck & Master, 2008).

Beliefs about Effort

The two theories also lead to different beliefs about the value of effort (Duckworth et al., 2007; Dweck, 2006; Paunesku et al., 2015; Romero et al., 2014). When facing an intellectual challenge, entity theorist students tend to believe that cognitive ability alone should help overcome the setback, not effort. After a setback, they tend to question the value of putting any effort into rectifying the situation in the mistaken belief that 'trying' harder is pointless as it will not change the outcome. In fact, research has shown that for many of these students, 'having to try harder' may even serve to show them up as academic frauds (Blackwell et al., 2007; Dweck, 2006). Conversely, students holding an incremental theory value effort in the belief that that it *can* help them improve, regardless of their current level of ability (Dweck, 2006).

Beliefs about Strategies for Addressing Failure

Students holding either theories will want to be successful in the academic context, and as long as they are succeeding with the task at hand, their different beliefs about intelligence may not always have an impact (Dweck & Master, 2009). In the face of failure or academic setbacks however, the different responses in approaches become more obvious. Entity theorists tend to become defensive and tend to blame their intellect (or lack thereof). They tend not to pay attention to feedback or new academic information, particularly if it relates to failure of a task, test or examination and thus miss out on a learning opportunity. Students holding an entity theory are less likely to take advantage of educative support (i.e. in the form of additional practice tasks or enrichment classes) as this would mean having to acknowledge their current lack of ability. Thus, rather than embracing the challenge and setting themselves up for future development and success, they choose to hide their shortcomings. Over time, this evasive action (i.e. the avoidance of corrective opportunities) can backfire, with students falling further and further behind their classmates (Dweck et al., 2004; Mangels, Butterfield, Lamb, Good, & Dweck, 2006). At some point, the students may disengage from the problem altogether and give up. 'Helpless' explanations, such as: 'I wasn't smart enough', or 'I'm just not good at this subject' or 'The test was unfair', for failure or shortcomings tend to characterise this situation (Blackwell et al., 2007).

Students holding an incremental theory, on the other hand, tend to view failure as an opportunity to learn, practice and grow. When faced with an academic setback, these students tend to want to understand where they have gone wrong and how it can be corrected because they believe they '*can*' succeed. They will attempt to generate new or alternative ways to approach problems, to think outside of the box, because they believe that there are alternative ways to achieve their goals (Dweck, 2017) .

Teaching Incremental Theory for the Cultivation of a Growth Mindset

For the past decade and a half, Dweck (2017) along with a number of other educators and advocates of the cultivation of a growth mindset in education for academic success (Blackwell et al., 2007; Paunesku et al., 2015; Siegel, 2015a, 2015b; Zadina, 2014) have stressed the importance of teaching students (at all levels of education) about an incremental theory of intelligence. In a number of independent studies, it has been demonstrated that teaching students about the neurobiological malleability of the brain and then encouraging then to develop a growth mindset results in increased motivation, better grades, and higher achievement in test scores (Blackwell et al., 2007). Whether the students were in junior high school or at a university, those who received this message outperformed students in the control groups (even when the students in the control groups received first-rate training in study skills). The students also reported a greater investment in learning, and teachers reported noticeable changes in these students' desire to work hard and learn. These benefits were especially important for students who had been subject to negative stereotyping i.e. girls studying mathematics and African-American students (Aronson, Fried, & Good, 2002; Blackwell et al., 2007; Dweck et al., 2004; Good, Aronson, & Inzlicht, 2003).

Given the positive effects of holding an incremental theory in order to succeed in the academic environment, it would appear advantageous to teaching and learning practices to adopt and cultivate such a theory. In their daily interaction with students, educators should possibly be asking: why is this student failing or succeeding?; how might the self-theory of this student be instrumental in his/her academic failure or success?; and, how might my understanding of the role of these two very different self-theories shape my teaching practices to facilitating maximum leaning for success? At a time when only 15% of the undergraduate students who access tertiary education institutions in South Africa complete their degrees (DHET, 2013), the research team felt it was important to determine effective ways to support students in order to maximise their chances of graduation. Following is a description of the first steps taken by the research team to address academic failure through raising awareness around the introduction of the role and function of self-theories in adopting an incremental theory or growth mindset towards academia.

METHODOLOGY

A Case-study Approach

Yin, a prolific writer on the topic of the case-study approach with regard to research methodology, defines a case study as an 'empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident' (Yin, 1994). In other words, a case study allows for the researcher to 'deliberately…cover contextual conditions believing that they might be highly pertinent to [the researchers] phenomenon of study' (Yin, 1994). Grix (2010) in reinforcing Yin's deliberate focus on context explains: 'The emphasis on context is crucial, as the rational for honing in on a specific case is to be able to identify, uncover and unpick specific contextually factors in which the event, person or policy you are analysing is embedded.' Having established the primary elements comprising a case-study, Yin (1994) describes three distinct types of case-study: descriptive, exploratory and explanatory. His description of an exploration case-study, (a type of study primarily carried out with the intention of testing initial working hypotheses, checking for availability of, and access to, relevant data, ascertaining the relevant variables for a study and assessing the suitability of the case for further, more extensive, research (Grix, 2010)), appeared particularly pertinent to the research context in which this research team was operating for the following reasons. Firstly, at the commencement of this research project not a single reference to self-theories or mindset in relation to academic success was present in the SOA Bachelor of Accounting Science degree. Secondly, although a number of studies on the effects of self- theories on academic success have been conducted elsewhere in the world, by the likes of Nussbaum & Dweck (2008), Dweck & Maters (2009) and Romero et al (2015) to name but a few, to the knowledge of the research team no such research has been conducted and documented in the South African accounting education context. Finally, the research team had access to a number of 'initial working hypotheses' emanating directly from the literature review. The first of which hypothesized that: the learning mindsets which people adopt affect the goals they pursue, the responses they have to difficulties, and how they ultimately succeed (or not) at university, work and life; the second: a change in mindset is difficult but not impossible; the third: educators can aid this process by the type of feedback they give, and the mindsets that they themselves role model; and the fourth: teaching people about the brain's neurobiological malleability can help them to change the mindset that they hold and in turn affect how they choose to respond - in thought, manner or deed - to challenges and setbacks for the better.

The narrative constituting this case study is drawn from an ongoing enquiry into the life experiences of Bachelor of Accounting Science students from previously disadvantaged backgrounds, who have had access to and success within the university, despite the odds, having come from impoverished home circumstances. To recruit research subjects a request was made to all Thuthuka Bursary Fund students (registered at the aforementioned university), inviting them to participate in the research project. The Thuthuka Bursary Fund is a transformation initiative of the South African Institute of Chartered Accountants (SAICA) aimed at encouraging previously disadvantaged South African black and coloured learners in schools to pursue a career in the Chartered Accountancy (CA) profession, by offering them full bursary support at tertiary institution accredited by SAICA. To date, 26 Thuthuka Bursary Fund students have participated in the case study, following detailed informed consent procedures and reassurances of their right to withdraw. For the purposes of this article, only one of these students' stories was highlighted.

The Interview Procedure

Prior to participating in the one-on-one interview processes, students were given a list of reflective questions to help them prepare for their individual interviews. These questions had been submitted to the University's Human Research Ethics Committee (non-medical) for ethical clearance. During the interview process students were encouraged to own the process and to engage in the interview as they felt best reflected their experiences. Each student related his/her life story, with special emphasis on when and how failure had derailed their academic journeys, and how they had ultimately managed to succeed despite these challenges. The researchers met with the students on campus and facilitated their narratives by asking them to share their experiences with them. On occasion the researchers would interject by asking a few probing questions in order to gain greater clarity or understanding, but in accordance with protocols typically adopted in narrative inquiries, the interviewers attempted to remain 'listeners' more than 'interviewers' (Chase, 2011). All narratives were audio-recorded with the students' permission. On average, each student initially spent about 2 hours recounting his/her story. Semi-formal follow-up sessions were conducted at a later stage.

To extract the essence of these students' mindset processes and the role they played in overcoming academic failure (or not in some cases), all interview transcripts were subjected to thematic content analysis (Chase, 2011; Merriam, 1998).

A Single Case-study Approach

For the purposes of this article, only one of the 26 students' stories was highlighted for discussion. For the remainder of this paper this student will be known a Naledi. The reason for adopting a single or macro case-study approach for this study was that it allowed for the researchers to a) examine one student's journey in a real life context in detail, and b) get a glimpse of broader processes at work in the student community (Merriam, 2014). The case study itself was developed from data collected in six in-depth interviews with Naledi conducted over a 24-month period. The email and cell phone text messaging correspondence between Naledi and her mentor, as well as study plans, timetables, principle notes and summaries were also used as sources of data for thematic content analysis and data triangulation. The texts that have been selected for inclusion in this paper were specifically chosen to illustrate the dynamic nature of Naledi's self-theories in order to illustrate the 'ups and downs' of her personal and academic transformation. After a rough draft had been constructed, Naledi was asked to corroborate and approve the study. This process prioritizes the research data and affords the researchers some 'objectivity' while simultaneously honoring Naledi as a research participant and not a research object (Badenhorst, Moloney, Rosales, Dyer, & Ru, 2015).

The Case-study: Naledi

In mid-2014, after four and a half years of grueling study, Naledi, an aspirant Chartered Accountant, was on the verge of failing the third year of her degree, having previously had to repeat her first and second years of study. Disillusioned and suffering from burnout, Naledi approached one of her third year content course lecturers for help. Over a period of two years of intensive consultation with and mentorship by the lecturer, Naledi was able to redirect the behaviours that had impeded her ability to complete her undergraduate degree in accounting in order to graduate.

The Journey

Brought up by her great-grandmother, Naledi lived and went to school in a small town in the province of KwaZulu-Natal, South Africa. From the age of one, Naledi had been left in the sole care of her great-grandmother. Naledi's father, although absent from her life, provided for her education. Consequently, instead of having to attend the educationally 'inferior' township school, Naledi was able to attend the local ex-Model C school in her hometown.

Quiet, reserved and prone to spending time 'reading books rather than playing in the street with friends', Naledi earned the reputation of being 'special'. She excelled as she progressed though the school system with ease and confidence, coming in the top five of her class consistently throughout her school career.

> I think the teachers just looked at my face and said - here's the top ten badge - cos that's literally how it felt, I felt like I never had to work, but somehow I always did well.

A life-changing event occurred in her penultimate year at high school when Naledi's great-grandmother passed away, leaving Naledi alone to take care of two younger cousins who had also been placed in the care of her great-grandmother. Naledi took on the responsibility as a matter of course. At the beginning of her final year at high school, Naledi's aunt returned to the family home. From the start there was tension in the relationship and although Naledi was relieved of her role as sole caregiver, her goal during her final year at school was to achieve matriculation marks sufficient to gain entry to a 'prestigious' university in Johannesburg – a destination she saw as 'rescuing her from her present predicament'.

Her decision to apply for the Degree of Bachelor of Accounting Science was three-fold: first it would enable her to leave home; second, she had heard from a friend that one could earn a great deal of money, security and status as a Chartered Accountant (CA); and third, as a ‘special’ person she had to keep up her reputation for setting (and achieving) high academic goals. Therefore, instead of using money she had been given by her aunt to purchase a loaf of bread for the family meal, she used the money to buy airtime to contact the university of her aspirations to request an application form. From May of 2009 until February of 2010, Naledi kept a daily diary recording the ‘days, weeks and months’ remaining until she could ‘escape’ from her home and go to university. She also confessed to sleeping with the University Prospectus under her pillow every night. This new goal motivated Naledi to work hard which resulted in her achieving excellent matriculation results, and ultimately being offered a place at the university of her choice.

University life

On entering the University, Naledi felt that she ‘had arrived’. This attitude, she conceded in one of her interviews, was bound to sabotage any future attempt at success as she had made the university a destination in itself and not a place that would require a great deal of work in a discourse she knew very little about. Confidant that during the course of the next four years she would acquire an undergraduate degree - a Bachelor of Accounting Science Degree - and a post-graduate diploma in accounting – a Higher Diploma in Accounting - and the opportunity to write the SAICA ITC, she relaxed and took full advantage of being young and irresponsible for the first time in her life. This was fueled by the mistaken belief that she was not only capable of passing (her academic track record testified to this) but that she deserved to be there because she was 'special'. In addition to being ‘very’ bright, Naledi believe that she was ‘special’ because she had risen above poverty and rural township life, she had ‘been lucky enough not to have a baby’ and have to leave school, and she had overcome the loss of both mother and great-grandmother. Finally, Naledi believed she was ‘special’ because she had aspirations greater than that of being a ‘check-out person at the local super market’. Lacking any knowledge of or experience in ‘the world of work’, and absolutely no insight into the knowledge, skills and strategies needed to succeed in a highly challenging academic discipline, Naledi ‘had fun’ with the rest of her classmates. What Naledi did not realize at the time, and only discovered at a later stage, was that her friends, after returning from a night of partying, would settle down to work, while she would go to bed exhausted. She reflects:

> the fact that they thought I was special at home, when I came here, it was just going to be a disaster - I’m not working and I think I'm special - it was just a bad combination.

The academic gap between Naledi and her peers began to increase: they were passing their subject tests, while she was not. Unaware of the fact that she was operating with a fixed mindset and instead of reflecting on her own actions and taking responsibility for why she was failing, Naledi turned to her friends to find out how they were managing to succeed. If a ‘successful’ student studied through the night to prepare for a test, Naledi would sit at her desk attempting to do the same. Year after year, locked in a disabling mindset, Naledi continued to move through the university system, with no definite goals, no work ethic or study strategies in place, no timetable in use, copious but inadequate notes and summaries, very few hours of sleep, no work/relaxation balance in place, and an ever increasing loss of confidence and self-esteem. She lived on memories of being special, and motivated herself by telling herself she needed to stay at university to rescue her abandoned cousin from a life of poverty in their hometown.

Four and a half years later and yet to graduate with a degree that should have taken three years to complete, Naledi was still unaware of how and where she was going wrong. The year had begun on a positive note as she had been awarded a full bursary by the Thuthuka Bursary Fund (TBF). Determined to pass, this her final year, on the first attempt, Naledi started the year off well. It began with her doing better than a number of her peers in their first Managerial Accounting test. Her confidence, and self-esteem, boosted -'I could do this' - Naledi took her 'foot off the pedal and began to relax'. This change in attitude had far-reaching outcomes; by the middle of 2014, with mid-year examinations just about to be written, Naledi realized that she had not done enough work to pass.

Highly anxious, she approached a lecturer who she 'trusted' for academic help and guidance. This was the start of a mentoring relationship that is still in place today, and is the reason, she believes, she was able to shift mindsets, overcome her difficulties and reclaim her academic aspirations. Prior to approaching the lecturer, Naledi had relied on her 'special' academic ability to get through her courses. She admits to 'not putting enough effort into her studies'. With her inability to self-regulate with regard to trying to gain access to and negotiate a very challenging academic discourses within an equally challenging institution, where students are viewed as numbers, cohorts (those passing and those failing) and through-put (or not) statistics, Naledi was a sure candidate for failure. The literature on mindset and self-theories (Briceño, 2013; Dweck, 2012; Dweck & Master, 2009; Nussbaum & Dweck, 2008) indicates that in order for a students to overcome failure, take responsibility for their learning and adopt the skills and strategies comprising self-regulated learning, they need to have a growth mindset. In the case of Naledi, it took a year for her to take full responsibility for her weaknesses in order for her to leverage her strengths appropriately. During their initial meetings in mid-2014, the lecturer, now acting more as a mentor and guide than content specialist/ mindful of her devastation at having failed, provided a 'caring' or 'safe' space for Naledi to come to terms with her situation (Christie et al., 2008; Dweck et al., 2004). During those meetings the mentor, drawing on insights gained from the literature on mindset and learning, began to introduce Naledi to the skills and strategies comprising self-regulation as well as highlighting the need for hard work, perseverance and sustained effort. He also recognized that until she took full responsibility for her failure and was able to adopt a learning mindset, she would not be able to change. The mentor therefore, in an empathetic but assertive manner, encouraged Naledi to take responsibility for the role she had played in her many failures, with particular reference to her most recent failure – that of third year. He challenged her to reflect on what needed to change in all areas of her life in order for her to ultimately succeed in her studies. This included the need for her to a) start creating goals for learning (i.e. to strive for mastery and competence of content matter) rather than performance goals (i.e. just passing); b) viewing effort as a necessary part of learning rather than as a reflection of low intelligence or lack of natural ability; c) attempting to think out of the box and generate new or varied ways to do things rather than to revert back to using old - now unsuccessful - strategies (but with greater determination) and; finally, to recognize the value of embracing the process of learning (as painful and demanding as it may be) above that of focusing on the end product.

For the first time in her academic life Naledi was being mentored and supported by someone she trusted and felt supported by. She felt that she was being seen as an individual with academic potential –'and not just, a number, a fee paying student or part of a cohort of failing students' (as in the case of the University), or as 'a potential bride worth so many cows' (as in the case of her family). In her words:

> That was the biggest thing with [my mentor] like he saw where I was and then he tried to help me wherever I wanted to go to instead of saying you won't pass third year because you've already failed first year and second year.

Although committed to the process and really wanting to succeed, Naledi was unable to adopt a change in mindset for the first six months of the intervention. Then, at the beginning of 2015, having failed the third year examinations, Naledi finally accepted that she needed to take responsibility for her lack of direction, her lack of motivation, her lack of time-tabling, her lack of principle note-making, her lack of sleep, her lack of nutritious food and her regular exercise: In her words: 'it took me five years to take ownership of the fact that I have to take responsibility for my life...five wasted years'. This shift in mindset proved to be the catalyst to the making of a truly productive and challenging mentor/student relationship. In the June of 2015 (and just prior to her mid-year exams) Naledi spoke confidently and energetically about the skills and strategies she had finally started to enforce:

> …the discipline of making a timetable and actually following it through. Seeing how are you spending your time, accounting for the time that you are spending. After doing that I remember thinking: Oh my God I spend so much time doing other things when I'm here to study…

[So the mentor challenged your sleeping patterns?]

> Yes, big time. I remember looking at him funny when he said I should sleep at least seven hours. I said that's like the craziest thing anyone has ever said, my friends sleep for three hours and they seem to be doing fine. I thought it was absurd but at the beginning of the year I aimed for eight hours but I end up sleeping maybe seven and a half hours. It helps because in class I am able to concentrate and because I am able to concentrate in class I can see which concepts I'm going to kind of struggle with when I go back and study, so I ask the lecturers and then they are able to explain so I spend less time going over the work which means I can attempt tutorials which is a big thing, because I get to actually practice. So the sleep is probably the biggest thing...and even when I get to school, from eight to four I'm not tired. Then I take an hour and a half break and I'm able to study again because I'm not even sleepy so I can't even say, let me take a nap, I'm able to work from six til ten, that's when I try to sleep. During those four hours, I actually get shocked at how much I am able to do in a short amount of time, instead of saying I'm going to study til three in the morning and you have a lot of time to work but you actually do one hour's worth. The intensity, it's the intensity.

[At the start of the interview, you mentioned eating a healthy lunch, was healthy food part of the equation?]

> Yes, he did say that I should try to eat healthily and exercise, and that when you I take time off not to think about the books, not to feel guilty for taking time off but to be fully there, completely. Like say going for ice cream with friends, be there fully… He suggested the whole balance thing - I thought you only had to do that when you are much older. But after seeing the benefits of eating healthily and excising, I want to do it more. Fries are very nice but I would rather have a productive day than be tired and full and uncomfortable.

Also, for the first time in five and a half years, Naledi was able to shed the stigma of failure and to view it as a learning experience. She explains:

> It sucks that I failed, but people don't see the stuff that happening inside or how happy I am that I get to have this opportunity to solidify knowledge and make sure that by the time I get to fourth year I know a lot more than I would have known had I passed. I have to look sad and depressed for failing, but I'm not too bummed because of it, because of the learning that has happened, especially after discovering that I could actually write stuff in my own words.

For the most part Naledi's journey has been written in the third person. Following are however a few extracts taken from email and sms correspondence between Naledi and her mentor. They have been included to illustrate a) how the mentor went about nurturing a sense of personal agency in Naledi through exposing her to a growth mindset and the learning skills and habits needed to overcome academic failure and b) how Naledi responded to this process of mentorship and awareness raising. The extracts are written (and recorded) in the first person in the form of an unfolding narrative between Naledi and her mentor.

Setting the Context:

In January of 2015, Naledi wrote:
Hi
I came by your office on Monday. I was on campus and came to greet you.
You're probably aware of this but I didn't pass FinAcc. It was a bit hard coming to terms with it but I think I'm fine now…
I wanted to ask if you could help me in 2015, just as you did last year. Even though the outcome wasn't what either of us wanted, I learnt some valuable lessons from the process. I believe that I will benefit greatly from it, especially starting as soon as the academic year begins.

In response the mentor wrote:
I will definitely be available to provide guidance and support. I think you were very close to getting through but we shouldn't dwell too much on the past. I am sure that you are now ready to do well in all your future studies and this is something very positive.

I would start by writing down the strategies that you are going to follow for each course. Tax, audit and Man Fin. Also write strategies for FinAcc but with the aim of revising them.

During the first 6 months of 2015, Naledi and the mentor met on a regular basis; during these meetings the mentor provided insights into the skills and strategies comprising self-regulated learning. Although this space was an academically challenging space, because it was ‘safe’, supportive and ‘non-judgmental, Naledi was eventually able to trust herself enough to realize a shift in mindset. The true test of Naledi’s mindset transformation came in May of 2015, when she had to write her mid-year exams. Following are extracts from the ongoing narrative between student and mentor as they negotiated the last 6 months in Naledi’s academic journey. The narrative starts with Naledi’s response to the following question posed by the mentor: *How did you do in the exams this week? Did your strategies work?*

On 30 May, Naledi wrote: *Just wrote FinAcc. Can't actually believe how important staying calm is. I planned as you had advised. Made key points but only for the first part. Overall, strategy-wise I'd say it was alright. I kept thinking that all I need is a pass; it really did calm me down. It actually made me focus on at least passing each section.*

On 31 May 2015, the mentor wrote: *I am glad to see that you are finding the advice I am giving you useful. Now you need to concentrate on the next two exams, so don’t give too much importance to how you feel about Tax. We can come up with Tax specific strategies for the third and fourth block.*

However, what you need to do is to learn from the experience of the two exams regarding reading time, time management, choice of the order of questions to answer and believing in your ability to get through the paper. I really liked your decision to scratch the section you were stuck with to continue with the rest of the paper. In some other situations you will need to make a choice and then stick to it even if you are not 100% sure that that it is the right choice. But again by making a decision you are able to move forward.

On 7 June the mentor wrote: *How is your Saturday plan going? It is OK to rest if you are tired but try to get the right balance.*

In response Naledi wrote: *Can't seem to work now. Think it's also because my body is not used to this [rest]! Resting seems like a waste of time. But there's also zero productivity.*

In response, the mentor wrote: *Something that may help is to set yourself small tasks, but to work with intensity on them. A little bit like a sprint. I suppose you are tired because you feel you have been running a marathon. Maybe having short term targets can help.*

With regards the productivity issue maybe try to keep track of how you spend your time. You can show me next week (sometimes knowing that you need to be accountable for something may actually help you to get things done). Otherwise try to see if you can come up with your own strategies. Keep positive and focus on the small steps….
Good luck & I hope that tomorrow you are able to be more focused.

On 8 June, Naledi wrote: *Thank you. I will try the small setting of small tasks. Not sure what it would look like. But I will try. I have written down all the things I would like to do before I write and when my study times will be.*

In response the mentor wrote: *Great! If you need to fine tune as you go along feel free to do so. Plans are aids only so be ready to be flexible. I think that now it is very important that you get between 8 and 7.5 hours of sleep each day (this is not a waste of time). You need that to be fresh; otherwise you will get burnt out.*
Keep up the good work!

On 13 July Naledi wrote: *It's been a while. I checked my results. I was hoping I would pass everything but I'm okay. A lot went into getting these and I would like to thank you.*

Auditing 48; FinAcc 61; Man Acc 57; Tax 57

They are the best marks I have ever gotten since I came to Wits. I know you can't celebrate at half time but I am using them as motivation. Although they are not a true reflection of how much effort went into studying, they show where I spend the most and least time on. I feel like I got 48 for Auditing to remind me that I'm not above anything (Auditing was my highest mark end of 2014 and the only one I passed in June-50 on the dot last year). Unfortunately I did not consult on it as vigorously as we had agreed, but I have learnt my lesson.

There is room for improvement but you should know that I feel really good about these marks. What seems to be working is sleeping 8 hours daily. It changes absolutely everything.
I am eternally grateful and would like to continue meeting with you. I know I disappear sometimes and the reason is that during those times I feel like I need to impress you. And that is really bad because it leads to me lying about my progress and what/how I'm doing. So if you could just bear with me during those times.

I'm excited for the 2nd semester as we cover some really exciting topics, and I do well emotionally when I'm excited. I'm driven by emotion and have noticed that sleeping (!) helps calm me down and be able to control them. I will check your consultation times and set up a meeting around that when school starts.

26 Aug the mentor wrote: *Are you “aggressively” consulting with lecturers?*
I understand you have a Man Fin III test on 2 September. How are the preparations going?

In response Naledi wrote: *I have been consulting. Definitely more than I used to, but probably not as aggressively as we had agreed. I have been consulting with academic trainees, as they tend to give a lot more exam technique. I spend a bit less time on the notes, and a lot more on tuts. The test marks SHOULD reflect that.*

On 4 September Naledi wrote: *Subject: Re: Reflections*
I am doing alright, I'll say. It has been a relatively good test week. Aiming for a certain mark has pushed me a lot. I remember you saying 65? I wrote 70s on my wall in my room. I'm going over my FinAcc tuts now and was quite surprised to see that I did virtually all my 3rd block tuts. But because of the practice that I need, I have decided that I am going to redo the key ones.

On 18 September Naledi wrote: Subject: results

I was planning on telling you all of my results but I cannot hold it in. FinAcc results came out and I got (drumroll please) 65%!! Remember I said I was going to get 60%... I am very happy and excited.

On 27 September Naledi wrote:
Subject: Rest of the results

First let my say I passed everything (another first-going down in the history books).

When I got my tax results I was a little disappointed. I got 71%. Remember I said I would get 80%. I was a little sad until I remembered how far I've come. Even in 2015 it is a huge jump (I got 60 in June). 71 are excellent and I should actually be very happy.

When Auditing came I thought that the test might have been harder than I thought because even though I said I would get 70, I thought I was being humble lol. I thought I would get higher. I got 67.

For Finance I got 53. I remember it was a horrible paper.

I have only gone over FinAcc and have identified what I missed in the scenario and any gaps in principles. I plan on being done with the others by Sunday.

What I learnt from all of this is this I shouldn't be too hard on myself. That it is great that I am making predictions but it is not the end of the world if they are not true. Linking it to the Friday sessions, because I am a heart person, not doing as well as I thought I'd do leaves me disappointed and unable to work. So the remedy is being kinder to myself. And being very proud!

The average for September is 64% !!!

We are finally winning.

On the 24th November 2015, the day after Naledi wrote her fourth and final examination, the researchers conducted their sixth and final interview with her. During that interview they asked her to reflect on the past six years of her life at university and in light of this, what her response to the following four statements would be: 1) 'I can change my abilities through effort'; 2) 'I can succeed'; and 3) 'This work has value and purpose for me'; and, 4) 'I belong in this learning community' (Farrington et al., 2012). Her response is as follows:

1. 'I can change my abilities through effort': *Yes definitely! So when I look at abilities, it's how much you are able to do, you can change your marks through effort. Basically the more work you do, and that's like doing the right things, the more marks you'll get.*

2. 'I can succeed': *Of course I can! Yes, I feel like I don't even need to elaborate on that one* (Naledi laughing).

3. 'This work has value and purpose for me'. *So [when I finish my studies] I want to go back home to teach accounting for three years. So the more [I] know about [the] subject and the*

more experience [I] have then it will help [me] with that…even beside that, like I said earlier, I'm going to need it at some point, I'm not at university just to pass time, and it's to help me do the work… I will need it while doing my Articles, or like even whilst I'm still here it's going to help me do my next test or next year [when I study for my Higher Diploma in Accounting].

4.'I belong in this learning community': *'In my high school I was one of the top students, so when I came here and realized that people actually did better than I did; it made me feel that I only came here because of luck. I didn't feel like I belonged here cos I didn't feel like I was smart enough. But now I belong in this learning community. When I think of myself, I feel like I am meant to be here…I'm supposed to be here….*

In early December of 2015, Naledi received formal confirmation that she had passed the final year of her Bachelor of Accounting degree. In 2016 Naledi successfully completed a Higher Diploma in Accounting and on 31 March 2017, with the release of the SAICA ITC results, she came one-step closer to realizing her dream of becoming the first Chartered Accountant in her small rural community.

Catalysts for Change: Allowing for the Presence of the Relational in the Accounting Space.

The reasons contributing to Naledi's failure were multiple and complex, but in the main, they comprised an inability to deal with an ever increasing and academically challenging workload under very stressful personal circumstances, with very little understanding of the dynamics comprising an academically challenging accounting degree, and a fixed mindset. It was only when Naledi had reached an all-time emotional low, i.e. failing the last year of her undergraduate degree that she finally decided to reach out to one of her lectures for help. Over a period of two years of consultation with and mentorship by a lecturer, Naledi was able to redirect the fixed mindset thoughts, feelings and actions that had impeded her ability to access, and succeed within the discourse of accounting to those comprising a growth mindset. It was however only when Naledi had been afforded a 'caring' 'safe', and 'non-judgmental' space to explore her many failures and take full responsibility for them, that she was able to finally adopt the necessary skills and strategies, and most importantly the mindset, to take responsibility for her learning and succeed in a discourse that nearly broke her.

RECOMMENDATIONS

Effective pedagogy is not a one-way process: although educators naturally want all of their students to profit from their efforts, they also want students to profit from their own efforts (Luckett & Luckett, 2009). A growth mindset can help students to actively seek learning, to enjoy learning, and to learn successfully. Although students are ultimately responsible for their 'mindsets', this research has shown that a shift in mindset from one self-theory to another – with the accompanying changes in thoughts, feelings and actions (as described previously) can result in academic success. This shift can be facilitated in a number of different ways. Firstly, educators need to operate with an enabling self-theory.This is important for two reasons: a) research has shown that educators holding an incremental theory do not tend to put students into categories and expect them to stay there, but educators holding an entity theory are likely to do so. Not only do they tend to believe in fixed attributes, but they also tend to believe that they can quickly and accurately judge those attributes. This means that once they have decided that someone is or is not capable they are closed to any new information to the contrary. This does not assist students who they have decided are not capable (Falko Rheinberg as cited in Dweck, 2006). And b) educators need to be aware of the benefits of 'praising' for 'strategies and processes' rather than 'intelligence or ability' in order to foster the adoption of an incremental theory by their students.

Second, in order to encourage greater theoretical understanding of entity and incremental theories, students and educators should be encouraged to attend workshops on the subject matter. These lectures and workshop can be offered in addition to regular content lectures/workshops and can be presented by educators and/or psychologists with an in-depth knowledge of educational neuroscience and the malleability of the brain (Siegel, 2015a; Zadina, 2014).

Finally, positive stories using role models have been shown to create change and self-motivation in people. Growth minded educators and even student tutors, can function as good role models in this regard (Bandura et al., 1996; Dweck, 2017; Siegel, 2015b).

CONCLUSION

In summary, self-theories or mindsets are the beliefs that people hold with regard to self-motivation and intelligence. Mindset processes are underpinned by four fundamental premises: first, that there are two mindsets which people adopt which affect the goals they pursue, the responses they have to difficulties, and how they ultimately succeed at school, work and life; second, that people can change, and that other individuals can aid this process by the type of feedback they give, and the self-theories that they themselves role-model; third, that the brain, with sustained effort can grow and change overtime; and lastly, teaching people about the brain's neurobiological malleability can help them to change the self-theory that they hold and thus how they respond to challenges and setbacks.

A change in self-theory is difficult but not impossible, as has been demonstrated by Naledi. With the ever increasing pressure on universities to improve through-put rates, adopting an incremental theory in teaching and learning practices may just help to bring about the necessary change required for academic success

'Be the change you wish to see in the world' (Mahatma Gandhi)

IDEAS FOR FUTURE RESEARCH

Although literature emanating from research into the academic impact of operating from a fixed mindset vs. operating from a growth mindset has been documented in a number of different educational contexts, presently this does not seem to be the case in accounting education. It is hoped that this study will not only contribute towards redressing this gap, but that interest in and adoption of such a theory may arise as a results of this study. That said the study does have a number of limitations that need to be acknowledge. Even though this case study was in fact part of a larger case study comprising 26 students, the focus (with regard to this particular study) was limited to a single female student from a previously disadvantaged background, enrolled for an accounting degree at a local university in South Africa. Therefore, although the study allowed for the examination of one student's journey in a real life context in detail, and gave the research team a glimpse of broader processes at work in the student community, it may have limited generalizability. Further research is required to investigate consistency (or lack thereof) of the findings across a) larger student numbers, b) gender, c) other universities and/or d) other socio-economic groups and subgroups.

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EDU022 **Students' preferences in solving accounting problems: Framework-based approach vs prescriptive approach**

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ABSTRACT:

The purpose of the study was to examine the impact of an assignment based on the Conceptual Framework for Financial Reporting (i.e. a framework-based assignment) on the preferred approach of students in solving future complex accounting problems. This study used an interpretive research design through a quasi-experiment to determine the impact of a framework-based assignment administered to undergraduate students at a South African university on their problem-solving approach. Student perceptions were analysed and were aided by a related reflective questionnaire. The results suggest that students' preference for solving accounting problems effectively tends towards a mixed approach, i.e. using a combination of the Conceptual Framework and specific accounting guidance. However, when faced with complex accounting problems for which specific guidance does not exist, students would be confident in using the Conceptual Framework to formulate appropriate accounting solutions. The study indicates the necessity for Accounting educators to focus on conceptual teaching in accounting education and to enhance conceptual understanding among students as a mechanism for solving accounting issues. This paper distinctly contributes to accounting education literature by demonstrating the impact of a framework-based approach in Accounting courses on students' preferred problem-solving methods. The study provides insight that exposure to framework-based assessments influences students to use a more balanced approach in practice. The study also provides a replicable research design in which other Accounting educators can implement a similar assignment-based teaching approach.

Key words: Accounting education; Conceptual teaching; Conceptual Framework; Framework-based approach; problem solving

INTRODUCTION

This paper focuses on accounting education from the perspective of International Financial Reporting Standards (IFRS). The primary principles on which IFRS are based are found in the Conceptual Framework for Financial Reporting (CF) (IFRS Foundation, 2010). The CF should be promoted in accounting education for the reason that, amongst other things, it contributes to lifelong learning (Hodgdon *et al.*, 2011; Wells, 2011). As specific accounting guidance included in the detailed standards is seemingly becoming excessive (Barnett, 2000; FASSET, 2008; Gloeck, 2012; Hassall and Joyce, 2014; Lubbe, 2013; Marx & Van der Watt, 2013; Van der Merwe *et al.*, 2014; Venter & De Villiers, 2013), focusing on the CF in accounting education equips students to adapt to changing accounting guidance and assists in formulating solutions to accounting problems for which no specific guidance exists (Wells, 2011).

Literature acknowledges that there are shortcomings in the CF, specifically relating to some concepts of measurement, presentation, disclosure and derecognition, as well as information relating to the economics of a transaction and transparency (Barth, 2007; Barth and Schipper, 2008; Christensen, 2010; IFRS Foundation, 2010; IFRS Foundation, 2013; Wells, 2003; Wells, 2011). If these concepts need to be taught with regards to a specific topic, the teaching should focus more on the guidance contained in the specific standard, linking it to the objective and qualitative characteristics in the CF. The International Accounting Standards Boards (IASB), the regulatory body that issues IFRSs, recognises that in certain circumstances there could also be a difference between the CF and a specific standard. In the instance that a difference exists, the specific standard will prevail over the framework (IFRS Foundation, 2010). These inconsistencies should diminish as the IASB finalises its project to revise the CF and as the standards are amended and replaced to become more principles-based (Wells, 2011). However, as long as inconsistencies exist, they should be pointed out in the teaching of IFRS, emphasising that they are not based on a concept in the CF and providing reasons.

In areas where the CF is not underdeveloped or where the concepts are not inconsistent with the specific accounting guidance as discussed above, it is submitted that accounting problems could in fact be solved just as effectively by referring only to the CF. With the specific accounting guidance steadily increasing and accounting transactions and problems becoming more complex (Grant Thornton, 2017; IFRS Foundation, 2017b), the CF is useful in supporting the formulation of solutions to accounting problems. Unfortunately, in the experience of the authors as Accounting lecturers and the main author having been part of an accounting technical department at one of the Big Four audit firms, frequently the first point of reference in solving an accounting problem is the specific accounting guidance, its implementation guidance and basis for conclusions, and little regard is given to the CF.

In this study, complex accounting problems were given to third-year Accounting students to solve using only the CF. The problems related to areas where the CF was not underdeveloped or inconsistent with specific accounting guidance. By investigating the students' in-depth exposure to solve complex accounting problems using only the CF, the purpose of the study was to determine the problem-solving approach students would take in future when facing a complex accounting problem. Given the seemingly growing importance of framework-based teaching and the aid of the CF in accounting problem-solving, the outcome of this study should therefore be of interest to academics who can incorporate this approach in the professional education of accountants, government and professional bodies that aim to promote quality education of accountants, as well as for practitioners facing accounting problems daily.

The literature seems to indicate two opposing views in education, ranging from a minimally guided approach where students discover and learn through inquiry and experiments (rooted in educational pedagogies like constructivism), to detailed instruction where students are taught a discipline by fully explaining all concepts and detailed knowledge about a topic that students are required to learn. General advantages of the fully guided approach are that it provides all necessary material and explanations, but disadvantages are that material might be rote learned and that learning beyond the instruction given is discouraged (Boud *et al.*, 2013; Bruner, 1961; Kirschner *et al.*, 2006; Mayer, 2004; Papert, 1980; Steffe & Gale, 1995).

Given the two extreme ways of learning referred to in the previous paragraph, the authors propose finding a middle ground which incorporates both perspectives through a pedagogy of learning rooted in Ausubel's subsumption theory (refer to the next section of the paper) where learning takes place through overarching constructs and principles, rather than through having a detailed technical knowledge. Through the different continuums of learning, accounting problems can be solved by one of three methods, namely a prescriptive approach where the problem-solver only refers to the detailed instruction and guidance in the specific accounting standards, a CF approach where the problem-solver will only refer to the CF to solve the problem and a mixed approach where the problem is solved by understanding the economics of the transaction, applying the concepts of the CF to the transaction and supporting the solution with the detailed guidance in the standards.

In view of the extensive, complex guidance contained in IFRS, the problem that gave rise to the current study is that the use of the CF in solving complex accounting problems is not sufficiently emphasised in accounting education. A review of the literature (see below) has indicated very limited emphasis in this regard and studies to promote concepts based learning only started appearing from the twenty first century. Hence, the purpose of this study was to administer an assignment containing complex accounting problems to Accounting students at a particular South African university (as a case study) and to determine if students would prefer to take a CF approach to problem-solving or a prescriptive approach, or even find a middle ground with a mixed approach. This study contributes to the current literature on framework-based teaching by offering insight into the impact of this approach on students' future preferences in tackling accounting problems. This study is important as it could provide an alternative basis for guiding accounting education at tertiary level to enhance conceptual understanding and contribute to lifelong learning. This could be particularly relevant for all accounting education institutions internationally, but also in practice when training professional accountants. Such an approach to focus on concepts, rather than detailed technical accounting, would also stand students in good stead when entering the profession as they should be prepared to contend with accounting problems in changing circumstances and understand the economics of the transactions.

In the next section the relevant educational theories on which this study was based, as well as relevant literature on approaches to problem-solving are reviewed. The section after that deals with the different approaches to accounting problem-solving based on factors identified in the literature. This is followed by an explanation of the research methodology, a presentation of the results and a discussion of the main findings. The conclusion, limitations and opportunities for future research are presented in the last section.

THEORETICAL FRAMEWORK

Constructivism is a theory, generally attributed to Jean Piaget, which suggests that learners actively create familiarity through experience based on prior knowledge, rather than just receiving passive information (Ackermann, 2001; Fosnot, 2013; Kundi & Nawaz, 2010; Piaget, 1976; Wadsworth, 1996). A constructivist teaching approach has been elaborated on in many forms and is incorporated in various teaching pedagogies such as discovery learning, problem-based learning, experiential learning and inquiry-based learning (Kirschner *et al.*, 2006; Mostyn, 2012) in which it is theorised that a learner is able to learn and discover new content through actual problems, inquiry and experiments, all whilst receiving little, if any, assistance (Boud *et al.*, 2013; Bruner, 1961; Papert, 1980; Steffe & Gale, 1995). Since constructivism became prevalent in the mid-twentieth century, there has been debate about the amount of instruction to be provided during teaching, ranging from pure unguided minimal instruction where students learn through experiments and construct their own knowledge based on minimal guidance provided, to providing direct and detailed instructional guidance required by the discipline where students should not be left to discover knowledge themselves.

Advocates of the minimally guided approach suggest that learning takes place by formulating knowledge through own inquiry/problem-solving, rather than by being provided with all the knowledge and information in a fully guided approach (the latter often incorporates a classroom-style approach). However, this construction of new knowledge can only take place if the learner has a background of prior learning in the discipline (Alfieri *et al.*, 2011; Bruner, 1961).

The experiment in this study was grounded in a constructivist minimally guided approach where students were required to solve a complex accounting problem by using limited guidance based on the CF and prior knowledge about the economics of accounting transactions or events. Through this method of problem-solving, the students create new knowledge about accounting transactions, events and circumstances both in terms of the CF and detailed accounting guidance acquired in reference to their knowledge of the CF.

Various authors note that there is little empirical evidence to support pure discovery learning (Alfieri *et al.*, 2011; Kirschner *et al.*, 2006; Mayer, 2004). These authors acknowledge that constructivist approaches may be beneficial, but an education style that focuses only on discovery learning is not only detrimental to students, but lacks structure in general (Mayer, 2004). These authors believe that students should be provided with information and knowledge that fully explains all concepts and the detailed knowledge about a discipline that students are required to learn. This fully guided approach has been criticised from an accounting perspective, especially in South Africa, as obtaining all knowledge relating to the discipline is extremely challenging and does not necessarily result in students who can apply their knowledge to real-life examples (Barac, 2014; Coetzee & Schmulian, 2012; Flood, 2014; Hassall and Joyce, 2014; SAICA, 2014; Van der Schyf, 2008).

Kirschner *et al.* (2006) define learning as “as a change in long-term memory” and advocate that learning through fully guided instruction does change long-term memory. However, Kirschner *et al.* (2006) also cite Bernstein *et al.* (2000), who argues that fully guided approaches may produce very good performance during practice and assessments, but too much guidance which is just transferred to students in a guided environment may impair students’ ability later to retrieve correct responses from memory on their own. In contrast to the fully guided approach, Lee & Anderson (2013) suggest that constructivist approaches lead to better long-term retention, although the rate of learning might be slower. Kirschner *et al.* (2006) and Mayer (2004), however, both advocate that minimally guided approaches are much less effective than fully guided approaches as they do not support the cognitive processes required in learning. Herrington *et al.* (2014) identify a problem in the study by Kirschner *et al.* (2006) in that it focused largely on learning experiments performed in the short term and once-off, whilst not dealing adequately with long-term learning over, for example, an entire semester, or even lifelong learning. The constructivist therefore believes that, once the knowledge has been formulated by the learners themselves (rather than just obtaining it through instruction), it will lead to knowledge retention in long-term memory.

Authors such as Kirschner *et al.* (2006) and Mayer (2004) seem to disregard constructivist approaches in totality, although it appears as if other educators and authors find value in these approaches. Lee & Anderson (2013) provide a summary, seen in Table I, showing the strengths and weaknesses of fully guided instruction.

Table I. Advantages and disadvantages of providing detailed instruction

Advantages	**Disadvantages**
• Provides all the explanations and correct solutions.	• Solutions to problems may be rote learned and poorly remembered.
• Guides students to all necessary material to be learned.	• Discourages learning that goes beyond the instruction.
• Guides students to critical elements in the examples.	• Students do not understand the examples and just recreate them based on the detailed guidance.
• Time efficient by reducing time to search for information that might be irrelevant.	• Processing all the detailed instruction can be onerous and impair comprehension.

The two approaches however are not mutually exclusive. When comparing the different perspectives in the literature, the authors believe that there is definite merit in a minimal guided approach where students discover for themselves and learn through experience. Students learn from real-life problems and experience, and discovery of knowledge contributes to long-term memory. Fully guided instruction is useful in that it provides a frame of reference when dealing with problems in the future; however, in the experience of the authors this fully guided approach seems to be mostly useful for committing knowledge to short-term memory and to pass an exam, whilst students are generally not able to recall all the details later in life (Kirschner *et al.*, 2006; Mayer, 2004). The authors are of the opinion that some middle point is necessary in this spectrum between minimal and fully guided approaches, and that the ideal mix will vary for different courses and disciplines. An educator cannot rely purely on minimal instruction; however, educators should accentuate the importance of overall concepts that guide a discipline, enhanced by scaffolding techniques and feedback and guided by the details of a discipline, with reference to the overarching construct on which the discipline is based.

According to Lucas (2000) and Rodgers, Simons and Gabrielsson (2016), even though there has been a substantial amount of research in accounting education, little research in the field of learning preferences based on constructivism provides scope for further research relating to perceptions and views of education in accounting courses. According to Hassall and Joyce (2014), accounting education is still currently criticised for a large pedagogic approach on traditional lecture-based starting point focussing on technical content and professional accreditation. Quattrone (2000) agrees that although Piaget's constructivism pedagogy for knowledge creation through a framework has been the concern in other disciplines, there have not been much attention given to this in accounting research. This lack of research in the field of instructional guidance and its impact on cognitive learning in accounting education is also confirmed in more recent literature (Apostolou, Dorminey, Hassel and Rebele, 2017; Mostyn, 2012; Rodgers *et al.*, 2016; Stanley, 2012; Watty, 2010).

Various authors over a time period call for a change in accounting education in order for practitioners to challenge the demands they will be facing in an ever-changing work environment (Adler and Milne, 1997; Boyce *et al.*, 2001; Bolt-Lee and Foster, 2003; Diamond, 2005; Flood, 2014; Fouché, 2013; Hassall and Joyce, 2014; Hwang *et al.,* 2005; May *et al.*, 1996; Sharma, 1997; Wells, 2011). These authors mean that the reasons for change include that traditional accounting education practices does not adequately prepare students for the workplace, neither developing foundations for lifelong learning. Flood (2014) indicates that the spotlight on changes in accounting education came to the forefront in the 1980's in the United States of America. As early as 1997, Adler and Milne argued that the change necessitates more than just creating graduates who possess wider skills and competence. They performed a study, drawn from general education literature, that action-orientated learning task in accounting is preferred by students and is essential to lifelong learning. Further studies by Milne also indicates the advantage of using problem-based learning and case studies in accounting education (Hassall and Milne, 2004; Milne and McConnell, 2001; Rodgers *et al.*, 2016). Flood (2014) reports that lifelong learning could be obtained by multi-disciplinary knowledge base, a wide set of skills and competencies and understanding the nature of professionalism.

It appears that, as constructivism became more prevalent over the last few decades, it has been suggested in accounting education that the focus should be more on conceptual education and, through this, constructivist approaches should be enhanced. Diamond (2005) argues that accounting scandals like Enron have brought on the greatest necessity to consider the efficacy of accounting education to move towards interaction between the profession and education and away from pure technical and methodical training of students. Diamond (2005) contends that when accounting material is only covered to a limited extent (i.e. only focussing on the basics), together with a liberal arts undergraduate experience, it would provide students with a foundation for lifelong learning and capabilities to purse postgraduate or professional studies. Hwang *et al.* (2005) also concluded in their study that students exposed to cooperative learning approaches in accounting outperform students in traditional lecture format approaches. More recently, authors such as Hodgdon *et al.* (2011) and Wells (2011) also considered accounting education from a constructivist approach and believe that a sound knowledge of the underlying CF in accounting will lead to knowledge creation and contribute to lifelong learning. The constructivist pedagogy was promoted in the position statement of the Accounting Education Change Commission, created by the American Accounting Association in 1989, advocating ''learning to learn'' (Mostyn, 2012). With all these authors indicating the need for change and only a few studies indicating possible changes that could be implemented, Fouché (2013) still noted that the content of accounting education remained distinctly similar over the last few decades, and hence further research in the field are necessary. This paper investigates another possibility of incorporating change in the accounting educational sphere.

Although this study was performed in a South African context, its relevance to international accounting education cannot be denied. An international study on accounting education practices across the globe was not attempted in this study, but in the next paragraph a section is specifically included on accounting education in South Africa to provide the context for initiating the study. The findings however, as discussed later, can easily be internationalised.

Accounting education in South Africa generally appears to be inclined towards fully guided instruction, but in recent years this has been placed under scrutiny as this focus on detail is geared to equip professional Accounting students to pass the Initial Test of Competence of the South African Institute of Chartered Accountants (SAICA). It often results in students not being equipped to think outside any parameters of only the guidance provided through the accounting instruction, hence resulting in an inability to solve unique problems (Barac, 2014; Coetzee & Schmulian, 2012; Van der Merwe *et al.*, 2014; Van der Schyf, 2008). In response to this, SAICA introduced a competency framework which also seems to incorporate more aspects of the constructivist philosophy by promoting lifelong learning (SAICA, 2014). In this study, it is recommended that accounting education incorporate a constructivist approach through a philosophy similar to Ausubel's subsumption theory. This theory suggests that cognitive learning takes place through presenting the general ideas of a subject first, and as new material and detail are presented, they are linked and cross-referenced to the overall general constructs which were presented first (Ausubel, 1962). Likewise, this study supports accounting education on the principle of presenting the most general ideas first, namely the CF. As new material is presented on accounting specific guidance, it is referenced to existing knowledge of the overall concepts included in the CF to build new knowledge and result in meaningful learning through horizontal, vertical and cross-links to existing general knowledge. The authors refer to this method as a framework-based approach in accounting education. This study aimed to determine whether incorporating a framework-based approach (Wells, 2011) in an Accounting course would impact on the accounting problem-solving preference of students in their accounting careers.

General advantages of a framework-based approach are that a detailed knowledge and understanding of the framework aids in adding and organising knowledge to this framework, in addition to equipping individuals with the ability to adapt to change (Barth, 2007; Durillo & Nebro, 2011; Hesketh, 2011; Hines, 1989; Novak, 2010; Ostrom, 2011; Wells, 2011). Some of the major disadvantages are that information could be misinterpreted if detailed guidance and rules are not known and that no approach can ever be as effective as experience (Bromwich *et al.*, 2010; Christensen, 2010; Hines, 1989; Kolodner & Kolodner, 1987; Novak, 2010).

APPROACH TO LEARNING ACCOUNTING AND PROBLEM-SOLVING

IFRS are prepared by the International Accounting Standards Board (IASB) and are generally regarded as being principles-based (Alexander & Jermakowicz, 2006; Bennett *et al.*, 2006; Collins *et al.*, 2012; Hodgdon *et al.*, 2011; Jamal *et al.*, 2010; Konte, 2013; Nelson, 2003; Schipper, 2003; Wüstemann & Wüstemann, 2010). Principles-based standards require more judgements in their application. Specific accounting guidance is to a large extent based on the overall qualitative characteristics of financial reporting as set out in the CF (Alexander & Jermakowicz, 2006; Bennett *et al.*, 2006; Benston *et al.*, 2006; Collins *et al.*, 2012; Nelson, 2003; Nobes, 2005; Schipper, 2003; Wüstemann & Wüstemann, 2010). This study assumed the use of IFRS (which form the backbone of accounting education in South Africa) and used an experiment assuming that principles-based standards are applied in a given scenario. The fact that the study was conducted in South Africa does however not limit the findings to South Africa only, as IFRS is adopted in 126 jurisdictions internationally (which require IFRS for all or most listed companies and financial institutions in their capital markets), and a further 12 reporting jurisdictions permit the use of IFRS for some listed companies (IFRS Foundation, 2017a).

The CF is a vital consideration in the development of principles-based accounting standards as it guides the process of standard-setting by providing the fundamental principles and foundation for detailed financial reporting standards (Gore and Zimmerman, 2007; IFRS Foundation, 2010). It assists the IASB with its process of developing new financial reporting standards and the review of existing standards to ensure that standards are based on consistent fundamental principles (Gore & Zimmerman, 2007; IFRS Foundation, 2010). An increased emphasis on principles has led to more recent constructivist literature suggesting that educators should focus on a conceptual approach to teaching IFRS, which equips students to exercise judgement and improves their ability to adapt to changes in accounting standards (Tweedie, 2007; Wells, 2011). The conceptual approach to accounting education will inevitably place great emphasis on the CF as it enhances the understanding of the concepts underlying the accounting treatment of transactions, events and circumstances (Barth, 2013; Hodgdon *et al.*, 2011; IAAER, 2013; Schipper, 2003; Wells, 2011; Wells, 2013).

Based on the pedagogies discussed in the theoretical framework, accounting education should also find a detailed balance between providing only minimal instructional guidance in an Accounting course versus fully guided, detailed instruction. In South Africa, Accounting courses have been criticised for their focus on passing the exam, rather than providing the students with a skill set necessary to prepare them for the working world (by following a detailed guided approach) (Barac, 2014; Coetzee & Schmulian, 2012; Flood, 2014; Hassall and Joyce, 2014; Van der Merwe *et al.*, 2014), hence shift should focus to incorporating more constructivist approaches.

The following sections set out how students (and accounting practitioners) can go about solving accounting problems:

Prescriptive approach

In the experience of the authors, when solving a specific accounting problem, the first point of reference is usually the detailed specific accounting standard dealing with the problem (i.e. a prescriptive approach). In the view of the authors, the reason why many accountants usually refer to the detailed guidance first is that that is how they were taught. The detailed guidance, of course, also addresses any areas where the CF is underdeveloped and provides guidance where the detailed guidance is inconsistent with the CF. The detailed guidance also naturally provides more guidance (and examples of situations) of its application.

The setbacks of the prescriptive approach are threefold:

1. The 2016 IASB publication ‘A guide through IFRS’ consists of a total of 6 925 pages (41 reporting standards and 18 interpretations) (IFRS Foundation, 2016). Relatively detailed knowledge of this vast amount of guidance is necessary in order to use the detailed prescriptive approach to problem-solving.

2. Even if the problem-solver has adequate knowledge of the vast amount of detailed accounting guidance (or had adequate knowledge at some point, i.e. recently after they have successfully completed their studies), the IASB is constantly updating and changing the specific accounting guidance included in the standards (often to be more in line with the CF) (IFRS Foundation, 2017b; Tweedie, 2007). The problem-solver might therefore use outdated guidance to solve the problem as a certain period might have elapsed since he/she had adequate knowledge of all the accounting guidance.

3. In certain instances, transactions or events could occur that are not dealt with directly by one of the specific accounting standards, which may render detailed knowledge of the guidance of little value.

CF approach

An accounting problem could often be solved just as effectively by referring only to the CF, as it ultimately contains the overall concepts on which the detailed guidance is based. The CF guides the process of standard-setting by providing the fundamental principles and foundation for detailed financial reporting standards (Gore & Zimmerman, 2007; IFRS Foundation, 2010). The IASB recognises that in certain circumstances there could be a difference between the CF and a specific standard, in which instance the specific standard will prevail over the CF (IFRS Foundation, 2010). Detailed guidance is therefore necessary for areas where the CF is underdeveloped or unclear, or to provide guidance for specific industries and transactions. The inconsistencies and underdevelopment of the CF are not substantial, however, and will still diminish over time as accounting standards become more principles-based, and a new CF is in the pipeline (IFRS Foundation, 2013; Tweedie, 2007).

The CF approach requires the use of only the CF in solving an accounting problem. This approach should be highly effective in areas where the CF is not underdeveloped or inconsistent with detailed accounting guidance. The advantage of the CF approach is that a detailed understanding of only 32 pages of accounting concepts is necessary in order to solve a range of accounting problems. The disadvantage is that some implementation and interpretation differences of these concepts are likely to arise if more detailed guidance is not available (for example divergent opinions existed in the treatment of share-based payment arrangements before IFRS 2 was issued).

Mixed approach

As with the two extremes of minimal and fully guided instruction in accounting education, it is suggested that accounting problem-solvers should also find equilibrium in this continuum of the fully prescriptive versus the CF approach. The authors believe that, even in areas where the CF is consistent with accounting guidance, the notions in the CF are explained in a few paragraphs compared to a number of pages of specific guidance. Even though the use of specific guidance will naturally require more detail to be learned, it will inextricably lead to improved application of accounting concepts contained in the CF and eliminate any possible interpretive differences of the concepts in the CF. However, the “additional” learning required from using the detailed guidance should be easier if there is a constant link with the concepts in the CF. The specific guidance is undoubtedly necessary in problem-solving, but the CF is equally essential.

The advantages of utilising the CF in problem-solving are that a detailed understanding of the overall concepts could aid significantly in the interpretation of specific accounting guidance for transactions. It is therefore suggested that notions of the detailed guidance be used, aided by the application of concepts in the CF. The only instance where there will be a pure focus on specific guidance is where the CF is vague, underdeveloped or inconsistent with the specific guidance. The CF, on the other hand, will naturally be used in instances where no specific accounting guidance exists, or to aid in understanding the changes made to existing specific guidance.

The mixed approach is supported by authors such as Barth (2013), Wells (2013) and Rodgers *et al.* (2016), who propose certain steps in attempting an accounting problem which incorporates elements of the CF (such as identifying the economics of the transaction, which information is useful and can be faithfully represented, and identifying concepts relating to recognition, measurement, presentation and disclosure which are consistent with the CF), but also requires reference to specific accounting guidance (namely which IFRS are applicable and whether guidance is inconsistent with the CF). It is argued that the mixed approach incorporates the best of both ends of the spectrum and should therefore be the most advantageous, although it cannot eliminate all of the disadvantages of either extreme.

As the objective of this study was also to promote a mixed approach, the aim in this study was to determine which approach to problem-solving students would prefer after being exposed to a complex accounting problem in the form of an assignment where they were required to solve the problem by referring only to the CF.

RESEARCH METHODOLOGY AND DESIGN

This study used an interpretive research design to explore the approach that students would take in solving accounting problems. According to De Villiers and Fouché (2015), researchers in accounting education have to apply a research methodology that is applicable and feasible in investigating the specific phenomenon. The research method will, therefore, depend on what the researcher wants to achieve with the study. No phenomenon has its own specific methodology for discovery and explanation - endless possibilities exist for the innovation of methods in accounting education research. According to De Villiers and Fouché (2015), researchers in the accounting education field should therefore attempt to investigate phenomena by means of using different research designs and combinations thereof.

This study incorporated a quasi-experimental nature (Campbell *et al.*, 1963; Shadish *et al.*, 2002) where an assignment requiring a specific method to solve accounting problems was administered to third-year Accounting students. The interpretive and quasi-experimental nature was necessary to possibly determine the causal impact of the assignment on the problem-solving approach of students when faced with complex accounting problems. A quasi-experiment determines the impact of an intervention or experiment on the target audience or population it is administered to (Campbell *et al.*, 1963; Shadish *et al.*, 2002). Although aided by a questionnaire as a means of information gathering, the research was fundamentally qualitative in nature. Through an interpretivist approach, this research can create knowledge about accounting problem-solving that cannot objectively be verified using a positivist approach.

The study incorporated a wider methodology that included triangulation. The validation of the overall research required that the analysis of the assignments be combined with other ways of data collection during the process. Qualitative data analysis (Berg & Lune, 2004; Merriam, 1998) was used to determine the students' response to the assignment and by observing their approach, results, interaction and feedback. The study also drew on field notes kept by the researcher to summarise student behaviour and interaction.

The observational and interpretive data was enhanced by a further research instrument in the form of a reflective questionnaire that was designed on the principles identified during the literature review. The questionnaire focused mainly on reflection by students after they received feedback on the assignment and after the specific accounting guidance that governed the transactions in the assignment was discussed with them. Such reflections revolved mainly around the approach the students would take to solve accounting problems in future. The purpose of the questionnaire was to gather information to gain insight into students' perceptions on accounting problem-solving and not mainly to analyse quantitative measures, thus rather complementing the explorative, qualitative nature of the study, and not to perform any detailed quantitative analysis. Based on the literature, the questionnaire explored, on a 5-point Likert scale ranging from 1 = *Strongly agree* to 5 = *Strongly disagree*, the likely approach students would take in future accounting problem-solving, ranging from a purely prescriptive approach to a purely CF approach. The questionnaire was reviewed by various knowledgeable experts in research design in the accountancy and education fields to ensure the validity and completeness of the questions in relation to each different theme identified during the literature review. Even though this research was focused in an interpretive paradigm, the research design and the methodology aimed to make the study replicable and therefore reliable. The research project in this dissertation has undergone ethical review. Ethical clearance has been obtained from the institution at which the research was conducted, granting permission for the researcher to distribute and collect questionnaires from students in order to successfully complete the research. Various measures were taken to ensure that ethical research was conducted, including but not limited to voluntary and anonymous participation.

Although the research phenomenon in this study, namely to determine the approach that students would take in solving accounting problems, could have been explored from a number of paradigms and methodologies, the authors decided that the research methods applied and discussed above, result in the best understanding of the observed phenomenon. Additional methods can be used to explore the phenomenon further or to explore different aspects and viewpoints relating to the research, i.e. interviews and focus groups. The researchers however only selected a combination of methods pertaining to the specific research paradigm. Additional research prospects relating to different research paradigms are discussed under the opportunities for further research in the conclusion section.

The assignment

An assignment was developed by the lecturer of a third-year Accounting course at a South African university. The assignment contained various complex accounting structures and problems relating to a structured finance deal between a bank and an entity wishing to obtain finance to acquire a property. As discussed in the literature, whilst most accounting problems can generally be solved by referring to a specific accounting standard, the same conclusion could also be reached by referring only to the CF. The assignment required students to solve the accounting problems using only concepts underlying the CF. The assignment was based on a real-life scenario from an entity in the financial services industry, but all actual names were replaced by random pseudonyms. The problems in the assignment did not relate to areas where the CF is underdeveloped or where the specific accounting guidance is inconsistent with the CF. The issues identified in the accounting problem were revisited again during lectures later in the Accounting course when the specific guidance for the appropriate standards dealing with the problems was taught. Students then had time to reflect on the issues and the conclusions reached, both in terms of the CF and the specific guidance in the appropriate IFRS.

The student participants

The assignment was administered to the third-year Accounting students at a South African university. The majority of the students in this course were studying towards becoming a Chartered Accountant (South Africa) (CA(SA)), with only the minority wanting to follow a different route. The study was focused exclusively on the students at this particular university as a case study, which reinforces the qualitative, interpretive research design and allows for deep analysis on a smaller scale to obtain rich data.

All SAICA-accredited universities have to comply with the same set of stringent accreditation criteria that guide the required competencies, standard of assessment and the knowledge list of CA(SA) students (SAICA, 2014; SAICA, 2017). Therefore, the profile of the Accounting students and their exposure to accounting topics, including their difficulty levels and standard of assessment, would be similar at most SAICA-accredited universities. The study therefore represents a microcosm of a larger system (Gomm *et al.*, 2000) and may indicate symptoms present within most Accounting courses at SAICA-accredited universities across the country. Although the study in this paper was conducted at only one university, its implications are by no means limited to this institution. The extrapolation of results to the entire population of CA(SA) students in South Africa was not attempted; however, meaningful results were obtained from the specific selection which goes a long way to better understanding students' preference in their problem-solving approach.

RESULTS

Following the participating students' exposure to the assignment in which they had to solve complex accounting problems using only the CF, and the Accounting educator placing great emphasis on the CF during the Accounting course, the likely approach students would take in solving future accounting problems is investigated in this section.

Participant profile

A total number of 65 students enrolled for the third-year Accounting course at the university where the study was conducted in the year the assignment was administered, and 64 students completed and submitted the assignment. Of the students that completed the assignment, 44 students (68.75%) completed the questionnaire. The lecturer believes the major reason for the difference between the number of students that completed the assignment and those that completed the questionnaire was non-attendance of the lecture on the day the questionnaire was administered. The demographic detail of the students that participated in the study and completed the questionnaire is summarised in Table II.

Table II. Demographic information on student participants

	Demographics		**N**	**%**
Student profile (44 participants in the questionnaire)	Gender?	Male	18	40.9%
		Female	26	59.1%
	Are you a South African citizen?	Yes	10	22.7%
		No	34	77.3%
	Is English your first language?	Yes	13	29.5%
		No	31	70.5%

The university at which the assignment was administered has a large intake of African (other than South African) students, explaining the high percentile of non-South African citizens. Although 70.5% of students indicated that English was not their first language, 100% of the students responded that English was their first language of preference for business (English is also the language of instruction used at the institution where the study was conducted).

Questionnaire feedback

As the research was interpretive in design, the results report the feedback from the questionnaire administered to gain insight into student approaches to accounting problem-solving. The results are reported for the prescriptive approach, CF approach and the mixed approach. Despite this being a qualitative study, selected descriptive statistics are included to enhance the understanding of the reader and to offer additional insight into the results discussed. In the reporting of percentages, the answers of "Strongly agreed" and "Agreed" were combined into an "Agreed" category. Answers of "Disagree" and "Strongly disagree" were combined into a "Disagreed" category. Answers not falling in either of these categories indicate that students took a neutral stance on the matter. The discussion following the results focuses, from a qualitative perspective, on the interpretation of the results, including lecturer observation of the students, assignment and course feedback and anecdotal evidence.

Table III. Feedback on the questionnaire results

Approach	Question	Results in percentages		Mean
		Agreed	**Disagreed**	
Prescriptive approach	I would have been able to resolve the problem quicker/easier if I knew the detail requirements of the specific standard governing the finance structure transaction	59.1%	2.3%	2.20
	I would rather use the specific guidance in the standards governing the transactions (as opposed to the Framework) to solve accounting problems in future	34.1%	15.9%	2.68
CF approach	I would feel comfortable to address future complex financial accounting problems by looking at the Framework only	47.8%	20.5%	2.55
	If there is a new transaction for which specific guidance in IFRS does not exist, I would have confidence to formulate the accounting treatment by using the Framework only	68.2%	6.8%	2.23
Mixed approach	I would use a combination of the Framework and specific guidance in the standards governing the transactions to solve accounting problems in future	81.1%	2.3%	1.77
	I believe an embedded knowledge of the concepts included in the Conceptual Framework will help me to solve accounting problems in the future	84.1%	2.3%	1.80

Overall

In a final reflective question, a remarkable overall result was that 86.7% of the students indicated that the assignment emphasised the importance of the CF in considering future accounting problems, with the remaining students being neutral on the matter. The assignment results and the above three approaches are interpreted in the discussion section that follows.

DISCUSSION

During the Accounting course the CF was continuously emphasised. In addition, the students were exposed to the assignment early in the course requiring them to use only the CF to solve the accounting problems. As specific accounting transactions were dealt with later in the course, there was continuous reference to the overall concepts in the CF, as well as when the specific guidance of the transactions in the assignment was discussed. The students were therefore constantly made aware of the importance that the CF can play in understanding accounting transactions. As for the approach students will take in future when facing accounting problems, it appears as if students inclined towards a mixed approach.

Prescriptive approach

In the student responses, 59.1% felt that they would have been able to resolve the problem in the assignment quicker or easier had they known the detailed requirements of the specific accounting guidance. This is understandable because guidance dealing directly with a transaction, event or circumstance will allow one to recall the specific accounting treatment, especially if the problem is familiar or similar to a problem that has been seen before. Kirschner *et al.* (2006) and Mayer (2004) advocate a fully guided prescriptive approach, but it appears that the specific cohort of students to which the assignment was administered were, in general, not necessarily in favour of this approach. One of the criticisms of the fully guided approach is that it is focused on short-term success rather than long-term memory retention (Herrington *et al.*, 2014). In this respect, even though the majority of students saw benefits in the speed and ease with which specific guidance can aid in solving problems, only 34.1% indicated that they would rather use specific guidance (as opposed to the CF) to solve future accounting problems, perhaps recognising that over the long term detailed knowledge might fade.

CF approach

A minimally guided approach has its roots in constructivism and supporters of this approach believe that students are able to learn by making their own associations through experiments, inquiry and problem-based learning whilst receiving little guidance (Boud *et al.*, 2013; Bruner, 1961; Lee & Anderson, 2013; Papert, 1980; Steffe & Gale, 1995). From the perspective of this study, the lecturer only provided students with concepts in the CF, with minimal other specific accounting guidance, before they were required to solve complex accounting problems. In this respect, Bruner (1961) and Alfieri *et al.* (2011) point out that construction of new knowledge through experimental approaches can only take place if the learner has a background of prior learning in the discipline. In addition to the CF, the assignment did require the students (who were in their third year of study) to relate prior knowledge regarding economic transactions to the scenario. Given such a minimally guided approach, 47.8% of students indicated that they would feel comfortable addressing future problems through a similar approach (namely only referring to the CF with linkage to prior knowledge and experience). The majority of students therefore did not feel completely comfortable to be worthy accountants with a CF approach only, yet 68.2% still indicated that in the absence of specific guidance dealing with a transaction, they would have confidence to follow a CF approach.

Mixed approach

Although relatively new in the literature, the mixed approach is supported by authors such as Barth (2013), Hodgdon *et al.* (2011), Rodgers *et al.* (2016) and Wells (2011), where a great deal of emphasis is placed on the foundational concepts in the CF, and specific accounting guidance is linked to the overall concepts. It appears as if participants preferred a mixed approach and that they would value education that enabled them to address accounting problems in this mixed manner. This is evident from the results indicating that 81.1% of students wished to use a combination of the CF and specific guidance to solve future accounting problems. These students valued the contribution of the CF emphasis in accounting education as 84.1% believed that a good embedded knowledge of the CF would aid to solve future accounting problems. This supports the incorporation of more constructivist approaches like Ausubel's subsumption theory into accounting education which promotes that the most important factor influencing learning is what the student already knows, and this knowledge should inform further teaching practices.

Various studies described in the literature indicated that incorporating constructivist approaches in accounting courses are beneficial for students. Stanley (2012) found that integrating constructivist approaches like problem-based learning has been beneficial and effective. Hassall and Joyce (2014) reviewed constructivist and experiential learning approaches as catalyst for change in accounting education as it could be beneficial for students, teachers and the accounting profession in general. Lucas (2014) suggests the incorporation of less structured non-traditional classroom approaches in accounting courses. As early as 1997, Adler and Milne performed a study on which it was concluded that action-orientated learning task in accounting is preferred by students and are essential to lifelong learning. Hassall and Milne (2004) as well as Milne and McConnell (2001) also promotes the advantage of using problem-based learning and case studies in accounting education. Hwang *et al.* (2005) also concluded in their study that students exposed to cooperative learning approaches in accounting outperform students in traditional lecture format approaches.

Although various authors over decades promote and demonstrate the usefulness of incorporating constructivist approaches in accounting courses, the research in this field is by far not exhausted and hence the study in this paper investigated another possibility of incorporating change in the accounting educational sphere to include more constructivist approaches, but still keeping a balance between minimal and fully guided approaches. These results suggest that the assignment and its focus on the CF was meaningful, as students' problem-solving approach would probably predominantly focus on a prescriptive approach if emphasis is not placed on the CF during Accounting courses.

General analysis

The assignment intervention as a whole was received positively and the fact that 86.7% of students grasped the importance of the CF in solving accounting problems reinforces the emphasis that should be placed on conceptual teaching as advocated by Barth (2013), Hodgdon *et al.* (2011) and Wells (2011).

From a purely qualitative perspective, field notes kept by the lecturer and observations indicate that the students were initially surprised by the assignment as the structured finance deal was like nothing they had ever seen before and that they had to spend additional time understanding the scenario. However, they were excited about the project and even though it was an individual assignment, they appeared to interact more with their fellow students and lecturer. The lecturer believes that, through the assignment and the continuous emphasis on the CF throughout the course, the students realised the importance of having a thorough embedded knowledge of the underlying concepts in the CF. The general feedback by the students on the Accounting course was positive and they reported that the course was intellectually stimulating, yet challenging and interactive.

Anecdotal evidence

The lecturer of the Accounting course received an email (reproduced below) from a student who had been in the workplace for approximately 7 months at the date of the email:

"Dear xxx,

I just want to thank you for time and dedication in teaching us. I can't tell you how USEFUL knowledge of the conceptual framework is beyond school.

I was not the very brightest student but I am glad I listened to you and attempted all questions (Especially for Group accounting) as that gave me a good foundation.

Please do keep up the good work you are making a good impact on our lives as accounting students.

Thank you

Warm Regards"

(sic)

This email was received from a student that studied at the university in a year that the assignment was not administered. It shows that at least one student confirms the importance of the CF in accounting education and its significance for the workplace environment and even more so, the researchers believe, when exposed to a framework-based assignment during their studies.

TEACHING IMPLICATIONS

Recent literature indicates the benefits in accounting education by incorporating constructivist teaching pedagogies. This will consider students' knowledge and viewpoints into the learning process, promoting interaction with the students and supporting their learning based their current views and experience as the starting point for new learning. Through this process new learning takes place through mutual construction of knowledge, making both the teacher and the student active players in the learning process. Learning has to be situated within the students' own experience and through this, learners feel positive that there can be different viewpoints to consider accounting transactions and that other students' experience might lead to learning accounting in different ways.

The CF supports accounting education from more than one perspective. As portrayed in the literature, students experience the amount of accounting guidance to be extensive and nearly impossible to master it all. The constructivist approach, as discussed in the literature is featuring importance here as it may alleviate some of the pressure to master all detailed knowledge and focus rather on the overarching concepts and creating new knowledge into the conceptual knowledge that already exist. The CF aids in teaching this voluminous amount of accounting guidance with reference to the overall concepts included in the CF. Using a framework-based approach in teaching therefore alleviates the need to "rote learn" all specific accounting guidance, but with the assistance of the Accounting educator, the students can organise their knowledge with reference to the CF and link it to concepts that they understand well and can relate to (similar to Ausubel's subsumption theory). By emphasising the CF, Accounting educators can also play a substantial role in developing the ability of students to make judgements which could be valuable to them once they enter the workplace and have to deal with unfamiliar and often complex transactions on a regular basis.

The results in this study might indicate that students who have been exposed to a framework-based assignment, or when the CF is emphasised during a course, tend to prefer a mixed approach in solving accounting problems. A mixed approach should be beneficial for the accounting profession, as these students should be able to adapt to amended specific accounting guidance and formulate opinions on new and revised standards and exposure drafts, as well as on previously unaccounted for transactions and events. In accounting education it will be important to consider the fundamental question of balance, regarding how to provide enough structure to help students engage in problem-solving activities more deeply while not oversimplifying the process by giving them a step-by-step recipe.

Accounting educators might therefore revise certain assessment methods and curriculum design to incorporate student learning through their own knowledge and experience. By incorporating more constructivist approaches, accounting educators can develop learning environments that develop students to be able to develop as individuals and be positive role players in the accounting profession.

CONCLUDING REMARKS

The objective of this study was to determine the likely approach students will take in solving future accounting problems when faced with complex scenarios after they have been exposed to an assignment requiring them to solve complex accounting problems by referring only to the CF, i.e. whether the students will look to the CF, specific accounting standards, or a mixture of both. The study therefore sheds light on whether exposure to such an assignment may alter students' problem-solving preferences. The results of this study suggest that the participating students would likely employ a mixed approach when faced with complex accounting problems and that they would be comfortable in solving accounting problems using the CF when specific guidance does not exist. Although the assignment was administered at only one South African university, the results are relevant for Accounting educators globally, as a focus on the foundational concepts in accounting education can largely enhance students' ability to make judgements when entering the accounting profession.

This study corroborates recent literature advocating an approach in accounting education that focuses on the fundamental principles in Accounting courses. This study distinctly contributes to the relatively scarce accounting education literature on this topic by demonstrating the impact of a framework-based approach to teaching on students' preferred problem-solving approach. It also contributes by providing a replicable research design in which other Accounting educators who so desire can implement a similar assignment-based teaching approach. If students have experience in how to apply judgements through continuous use of the CF, this will aid these students to make appropriate judgements when dealing with complex transactions in practice.

A limitation of this study is that it was unable to unilaterally calibrate the benefits of integrating the framework-based assignment with students' professional accounting career choices. Further research could be conducted over a longer period to examine student responses to accounting problems once they have entered the profession. The study could also be expanded to include more Accounting courses at a South African and global level and to compare results with Accounting courses where emphasis is not placed on the CF. Further insight into student perceptions could also be obtained through interviews and focus groups. These additional research initiatives may provide additional insight into the incremental benefits of a framework-based approach to accounting education. Literature also indicates that research is far from complete in respect to constructivist teaching approaches in accounting education, and further research can be performed in this area. By incorporating Ausubel's subsumption theory, there is a need to understand what students' existing knowledge is in different accounting courses and as they progress through tertiary education and how different teaching approaches influence their learning environments.

Regardless of its limitations, this study provides evidence of how a framework-based approach in at least one Accounting course impacted on students' responses to accounting problems and the considerable importance of the CF in the teaching approach. The research also provides some indication of how such an approach would impact accounting education in general. As the accounting profession greatly contributes to the economy of any country, any research aiming to enhance the profession through the roots of its educational system carries merit.

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FAC004 **Impression management and the use of graphs in integrated reports of the South African mining sector**

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ABSTRACT:
Impression management in narrative disclosures is well documented. Less is known regarding visual disclosures, specifically the use of graphs in ESG disclosure and impression management in these graphs. This research analyses the use of graphs in ESG disclosure and impression management in these graphs in the integrated reports of South African mining companies between 2010 and 2013. The results suggest that companies do make use of graphs as a visual disclosure strategy in integrated reports. Regarding impression management and graphs, there was an overwhelming portrayal of favourable rather than unfavourable graphs through graphs selected for disclosure. Companies therefore appear to use graphs in ESG disclosure as an important communication tool in integrated reports to manage the company's corporate image with stakeholders regarding ESG matters.

Key words: Graphs; ESG disclosure; Impression management; Integrated reporting

1. INTRODUCTION

Impression management in corporate reporting can be defined as management acting out of self-interest by exercising discretion in which information to display and presenting that information in such a way as to distort the readers' perception of corporate achievements (Neu, 1991; Neu *et al.,* 1998; Stanton *et al*., 2004). According to the agency theory, management is driven by self-interest and will act out of self-interest unless agency costs are minimised and management is restricted from acting in such a manner (Jensen and Meckling, 1976; Lambert, 2001; Deegan, 2009). A number of disclosure strategies is used by management to achieve this self-interest goal (Adelberg, 1979; Courtis 1995; Neu, 1991; Deegan and Rankin, 1996; Neu *et al.,* 1998; Stanton *et al.,* 2004; Clatworthy and Jones, 2006; Brennan *et al.,* 2009; Higgins and Walker, 2012; Tregidga *et al.,* 2014). One such strategy is the manipulation of the formats used to present visual disclosures, also known as presentation management (Beattie and Jones, 2000). This type of strategy places emphasis on positive performance and underplays negative performance (McKinstry, 1996; Preston *et al.,* 1996; Beattie and Jones, 2000; Courtis, 2004; Merkl-Davies and Brennan, 2007). Graphs are vehicles of visual disclosure in corporate reports which are used as a means of impression management through the manipulation of presentational format (Graves *et al.* 1996; McKinstry, 1996; Beattie and Jones, 1999; Beattie and Jones, 2000; David, 2001; Jones, 2011).

Non-financial reporting, and specifically, sustainability, have become significant components of company corporate reporting (IoDSA, 2009; Carels *et al*., 2013; IIRC, 2013). In particular, combining financial and non-financial reporting on environmental, social and governance (ESG) items in one integrated report has become the norm in South Africa after the implementation of King III (IoDSA, 2009; Marx and van Dyk, 2011; Carels *et al.,* 2013). Atkins and Maroun (2015, pp.209) state that "[i]t may very well be the case that the proliferation of ESG disclosures in South African integrated reports is about impression management rather than providing a comprehensive account of long-term sustainability to stakeholders".

Many studies have analysed the economic consequences associated with voluntary disclosures and have found that voluntary disclosures are associated with higher share prices, better earnings quality, a lower cost of capital and lower analyst forecast error (Francis *et al.,* 2008; Dhaliwal *et al.,* 2011; de Klerk and de Villiers, 2012 and Dhaliwal *et al.,* 2012). Although testing whether voluntary graph disclosures have economic consequences is not within the scope of this study, prior research suggests that voluntary disclosure (such as graphs), could have economic consequences.

Non-regulated and voluntary disclosure, such as the use of graphs, is easier for management to manipulate and provides the opportunity for impression management (Brennan *et al.,* 2009; Cho *et al.,* 2010). Verrecchia (1983) and Dye (1985) explored explanations as to why managers exercise discretion in disclosing information that is a voluntary disclosure and associated it to disclosure-related costs. Visual disclosures such as graphs have become another marketing tool for management (Preston *et al.,* 1996; Beattie and Jones, 1999; David, 2001). Although visual images convey a powerful message to stakeholders, this is often ignored as part of content analysis (Davison, 2014).

The purpose of this study is to contribute to the existing literature, knowledge and understanding of corporate disclosure practices regarding ESG disclosure, and specifically, impression management and the use of visual ESG disclosure, specifically graphs, in the integrated reports of South African mining companies. Prior studies have found impression management to be used in narrative disclosure (Adelberg, 1979; Courtis 1995; Neu, 1991; Deegan and Rankin, 1996; Neu *et al.,* 1998; Stanton *et al.,* 2004; Clatworthy and Jones, 2006; Brennan *et al.,* 2009; Higgins and Walker, 2012; Tregidga *et al.,* 2014) and visual disclosure (Graves *et al.* 1996; McKinstry, 1996; Beattie and Jones, 1999; Beattie and Jones, 2000; David, 2001; Jones, 2011) of corporate reports. With particular reference to impression management and visual ESG disclosure, Jones (2011) found that impression management was used in graphs presented by UK companies in social and environmental reports. Furthermore, Hrasky (2012) is of the view that disclosure strategies relying on the use of imagery in sustainability reports differ between more sustainability-oriented and less sustainability-oriented Australian companies and that imagery is used as a rhetorical legitimacy tool in communicating sustainability to stakeholders. In South Africa, the only study carried out to date on impression management and ESG disclosure in integrated reports in South Africa is that of Atkins and Maroun (2015). In this research, interviews were held with institutional investors and findings suggest that integrated reports in South Africa are characterised by some degree of impression management. The study conducted by Atkins and Maroun (2015) was limited to interviews conducted with institutional investors. The present study fills this gap in current literature by analysing whether impression management is actually prevalent in visual ESG disclosure in integrated reports in South Africa or whether it is merely a myth. This study fills a gap in existing literature as it is more comprehensive in the analysis of graphs. The analysis of graphs is remarkably more detailed than existing literature. The focus of Jones (2011)'s study was on impression management of graphs in stand-alone social and environmental reports. Jones (2011) focused only on graph selection and graph distortion as the form of impression management. Hrasky (2012)'s analysis was limited to the usage of graphs compared to photographs in economic, social and environmental disclosures between more sustainability-oriented and less sustainability-oriented Australian companies. Further analysis of impression management of graphs through graph selection and graph distortion was not performed. This study is more detailed as it analyses impression management of graphs in ESG disclosures and uses graph selection and graph distortion as measures of impression management. Benschop and Meihuizen, (2002), Shen and Samkin (2008) and Campbell *et al*., (2009) analysed visual disclosure but focused on photographs only and did not perform any analysis of graphs. These studies (Benschop and Meihuizen, 2002; Shen and Samkin 2008; Campbell *et al.,* 2009; Jones, 2011; Hrasky, 2012) also did not focus on ESG disclosure specifically compared to this study that analyses each category of ESG disclosure in detail. This study is also unique insofar as it specifically analyses integrated reports as the form of corporate ESG reporting. There has been a global awareness of the importance of holistic reporting in the form of integrated reporting (Carels *et al*., 2013; IIRC, 2013). To the authors' knowledge, no study on impression management and visual disclosure has specifically analysed integrated reports as the form of corporate reporting. South Africa is unique in this sense as integrated reporting is mandatory for all Johannesburg Securities Exchange Limited (JSE) listed companies (JSE, 2010; Solomon and Maroun, 2012) and therefore also provides a South African perspective.

The findings of this study are of relevance to all the different users of integrated reports, management of companies and regulatory bodies. The users of the integrated reports will be interested in the findings of this study as their perceptions might be manipulated or managed through the use of these visual disclosures in the integrated reports. Management of companies will be interested in the findings of this study as to emphasise the important role management plays in providing an informative integrated report and using visual disclosures to enhance the communicative effectiveness of integrated reports rather than manipulating or managing the company's corporate image. Regulatory bodies will be interested in the findings of this study as it emphasises the importance and use of visual disclosures in integrated reports and for regulations to be enacted by regulatory bodies to govern the use of visual disclosures by companies in corporate reporting, specifically taking into account the findings of prior studies regarding the economic consequences of voluntary disclosures.

To achieve the overall purpose of this study, three main research objectives were set:

1) To what extent do South African mining companies make use of graphs as a disclosure strategy in integrated reports?
2) Does the management of South African mining companies make use of impression management in ESG graphs used in integrated reports?
3) Is impression management more prevalent in graphs of environmental, social or governance disclosures?

To address these research objectives, the study analysed a sample of 87 integrated reports of South African mining companies in totality from 2010 to 2013. The scope of this study is not to compare the data on a year to year basis but in totality to identify whether impression management is used in ESG graphs in integrated reports of South African mining companies, Qualitative analysis was performed on all 87 integrated reports. Impression management of graphs was assessed through manual content analysis. Impression management of graphs was assessed in a two-stage process (Jones, 2011). Graph selection and graph distortion were used as measures of impression management in graphs. Non-parametric tests, specifically binomial tests, were used to evaluate the findings.

There are three main findings. First, management uses graphs as a disclosure strategy in integrated reports. Second, impression management in the form of graph selection was evident and significant in ESG graphs. Third, impression management was most prevalent in graphs related to social disclosures when compared to graphs related to environmental and governance disclosures.

The remainder of this paper is organised as follows: Section 2 provides an overview of the background and a prior literature review, Section 3 discusses the sample of the integrated reports, Section 4 discusses the analysis and research method used, Section 5 discusses the findings and Section 6 provides a conclusion to the research.

2. BACKGROUND AND PRIOR LITERATURE

2.1 Impression management in corporate reporting

Impression management is when specific information is selected and presented in such a way as to distort readers' perceptions of corporate achievements (Neu, 1991). It can either enhance the corporate image of the company or re-establish an image that has been threatened or destroyed (Stanton, *et al.*, 2004). Deegan and Rankin (1996) found that Australian companies, even when prosecuted for environmental misdemeanours, only disclose favourable environmental information in annual reports. Similar to Deegan and Rankin (1996)'s findings, a study by Neu *et al.* (1998) found that Canadian companies try to manipulate the impressions of the public through the environmental disclosure provided in annual reports. Clatworthy and Jones (2006) studied UK companies and found that the chairman's statement is subject to impression management as managers are selective in narrative disclosures. Both Higgins and Walker (2012) and Tregidga *et al.,* (2014) found that in sustainability reports, companies seek to manage stakeholders' expectations and any criticism against their operating or ESG reporting practices. Higgins and Walker (2012) found evidence of a variety of persuasive appeals used by three New Zealand companies in their social and environmental stand-alone reports to engender a sense of reasonableness and trustworthiness in stakeholders as to the company's role in social and environmental change. Tregidga *et al.* (2014)'s study illustrated a changing organisational identity in New Zealand companies from 1992 to 2010 and that companies use reporting as a legitimising tool to enhance faith in the company as a changing agent. These findings suggest that companies do use disclosure in corporate reports as a form of impression management to convey the corporate image they would like to portray to the users of the corporate reports, especially regarding ESG disclosure. The focus of these prior studies has been on impression management and narrative disclosure. The present study contributes to existing literature by focusing on visual ESG disclosure in the form of graphs rather than only narrative disclosure.

2.2 Graphs and impression management

Annual reports increasingly use visual disclosure such as accounting narratives, graphs and photographs to communicate financial information (Graves *et al.,* 1996; Preston *et al.*, 1996; Beattie and Jones, 1999; Beattie and Jones, 2008). Beattie and Jones (2008) present six reasons why companies seek to use graphs instead of tables or narratives. Graphs are eye-catching, memorable, universally understood, excellent at summarising information, allow for information to be presented in a flexible manner and tap into the human cognitive skill known as spatial intelligence. These characteristics of graphs indicate that management is able to convey a strong cognitive message to stakeholders through the use of graphs in corporate reports.

Graphs is an area where impression management in the form of manipulation of the presentational format has been found. In a study performed on Australian companies, Beattie and Jones (1999) found that companies use financial graphs in annual reports as a tool for impression management. In another study performed on inter-country companies, Beattie and Jones (2000) found that in certain countries, companies do use financial graphs selectively and show measurement distortion to skew corporate financial performance in the company's favour. Jones (2011) studied the nature, use and impression management of graphs in social and environmental disclosure in the top 100 UK companies' social and environmental reports. He found that companies selectively present information and bias the results of information presented. This study found environmental topics to be the most graphed category. Hrasky (2012) studied whether more sustainability-driven Australian companies differ in the use of imagery in sustainability reports compared to less sustainability-driven Australian companies in their pursuit of legitimacy. The study specifically focused on the use of graphs and photographs. Hrasky (2012) found that companies do use imagery as a rhetorical legitimacy tool in communicating to stakeholders, as more sustainability-driven companies adopt significantly different disclosure strategies than less sustainability-driven companies. Sustainability-driven companies placed greater reliance on graphs as opposed to photographs, particularly when compared to companies which are less sustainability-driven which tended to rely more on photographs than graphs. This study found social topics to be the most graphed category.

From these prior studies, it is clear that graphs are often used as a tool of impression management in corporate reporting. The use of graphs in disclosure is voluntary and therefore South African mining companies can use graphs as a tool of impression management in integrated reporting. This study contributes to the existing literature on impression management and visual disclosure by providing a South African perspective.

2.3 Integrated reporting in South Africa

There is a renewed emphasis on the importance of reporting financial as well as non-financial information (Companies Act No. 71 of 2008; IoDSA, 2009; Solomon and Maroun, 2012; Carels *et al.,* 2013; de Villiers and Alexander, 2014). King II was not sufficient to achieve holistic reporting (IoDSA, 2009). This led to King III which emphasised that sustainability reporting should be integrated into financial reporting (IoDSA, 2009; Marx and van Dyk, 2011; Solomon and Maroun, 2012). In addition to King III, international integrated reporting principles have been developed with the goal of integrated reporting becoming the international corporate reporting norm in the future (IIRC, 2013).

Sustainability under King III includes information on ESG considerations, however, King III does not provide a detailed framework and neither does the IIRF (IoDSA, 2009; Marx and van Dyk, 2011; Carels *et al*., 2013; IIRC, 2013). Through its listing requirements, the JSE enforced compliance with King III in 2010 which mandated integrated reporting for all listed companies from 1 March 2010 (JSE, 2010; Solomon and Maroun, 2012). South African listed companies have consequently been legally required to prioritise disclosure of ESG information in an integrated annual report in order to present a complete picture of value creation over time (IoDSA, 2009; Carels *et al.,* 2013).

Carels *et al.* (2013) found an overall increase in ESG disclosure and the level of integration in annual and integrated reports, specifically social and environmental topics, between 2008 and 2012. These findings indicate that mining companies recognise the importance of ESG disclosure to stakeholders and the relevance of organisational legitimacy through the alignment of the company’s values and beliefs to those of the various social and environmental stakeholder groups (Carels, *et al.*, 2013). Solomon *et al.* (2013) conducted interviews with UK institutional investors and found that both investors and investees make use of impression management in creating and communicating a myth regarding their social and environmental performance. In a study performed by Atkins and Maroun (2015), South African institutional investors were interviewed to determine the investors’ views regarding integrated reporting in South Africa and their reactions to the first sets of integrated reports of JSE listed companies. Similarly to the findings of Solomon *et al.* (2013), the results suggest that “[t]he same could apply to South African integrated reporting” regarding the use of impression management in integrated reports (Atkins and Maroun, 2015, pp.201). Research indicates that the emphasis may be more on impression management than communicating how sustainability concerns are actually addressed by companies and painting the 'real" picture to stakeholders (Solomon and Maroun, 2012; Carels *et al.*, 2013; Solomon *et al.*, 2013). Similarly, Atkins and Maroun (2015, pp.210) found that integrated reports are categorised by "some degree of impression management" and that this is a result of too lengthy reports, the application of disclosure checklists and a lack of an integrated approach in the manner information is communicated to the stakeholders (Solomon and Maroun, 2012; Carels *et al.*, 2013).

The studies performed by Solomon *et al.* (2013) and Atkins and Maroun (2015) used interviews as the chosen research method. The findings of these interviews, specifically those of Atkins and Maroun (2015), suggest that impression management is used in integrated reports in South Africa, although from institutional investors' perspectives. The present study is therefore relevant and fills a gap in existing literature regarding impression management and visual disclosure since to date, no study on impression management and visual disclosure has:

- tested whether impression management, from an institutional investors' perspective, is used in the visual ESG disclosure of integrated reports in South Africa; and
- analysed integrated reports as the form of corporate reporting.

2.4 The South African mining industry

At the end of 2012 the mining industry accounted for 24.7% of the All Share Index on the JSE (CMSA, 2012; de Villiers and Alexander, 2014). It is also one of the largest employing industries in South Africa (CMSA 2013; de Villiers and Alexander, 2014).

Sustainability is becoming increasingly important in mining due to the significant environmental impact stemming from the use of land and non-renewable resources as well as the social impact of the health and safety of workers (Azapagic, 2004). In the South African mining industry, ESG disclosure has become even more relevant due to the high unemployment rate, deaths due to HIV AIDS and Tuberculosis as well as labour strikes for improved working conditions and wages (Avert, 2009; Carels *et al.,* 2013; de Villiers and Alexander, 2014; Muswaka, 2014; TAP, 2014; TE, 2014).

Due to the nature of operations and significant size of the mining industry in South Africa, it can be expected that ESG disclosure will form a significant part of the integrated annual reports presented by these companies and will provide insight as to how these companies incorporate visual disclosure in their integrated reports.

3. SAMPLE

The integrated reports of companies listed in the mining sector on the JSE were selected for further analysis. This study specifically focuses on reports from 2010 to 2013. The aim of this study is not to analyse and compare data per year but in totality for the sample period. In 2010, it became a JSE listing requirement to comply with King III by preparing an integrated report or to provide reasons for not doing so in cases where a report was not produced (JSE, 2010). The study period therefore commences in 2010. Cross-listed companies not primarily listed on the JSE were excluded from the sample as these companies were not bound by the listing requirements to comply with King III (Carels *et al.,* 2013; de Villiers *et al.,* 2014). Integrated reports were obtained from the McGregor BFA database. A separate search for integrated reports was performed on each company's website for any reports which were unavailable on the database. A total of 87 integrated reports from 28 companies was analysed[30].

4. METHOD

Qualitative analysis was performed in this study. Manual content analysis was used to evaluate the impression management of graphs. This form of analysis is deemed more appropriate for analysing impression management "as impression management techniques are subtle, sophisticated, and therefore complex" (Brennan *et al.*, 2009). An inherent limitation of the study is the subjective nature involved in the coding of graphs. The co-author of this paper re-coded a sample of the integrated annual reports and the results were reconciled in order to address this limitation.

The subject matter of each graph presented in the integrated annual report was coded on Atlas.ti as being environmental, social, governance or other. The classification of the subject matter was based on a coding instrument used by Carels *et al.* (2013) (see Table 1 in Annexure A). The following descriptive data was collected for each graph: the frequency of graphs (total count of graphs and the proportion of pages in the integrated report dedicated to graphs); topics graphed (ESG or other); graphical formats (type of graph, variables per graph, years graphed) and the position of graphs in the integrated annual reports. An analysis of impression management of graphs used by Jones (2011) was applied to graphs classified as environmental, social or governance. Impression management was assessed in a two-stage process: graph selection and graph distortion.

In the analysis of graph selection, the topic chosen to be graphed and its underlying trend were assessed to consider whether the graph presented good or bad news from the company's perspective (see Table 2 in Annexure A). For example, a company may choose to graph a good news topic such as recycling; if the underlying trend was a decrease in recycling it will represent a bad news topic (conversely, an increase in recycling will represent a good news topic). Similarly, a company may choose to graph a bad news topic such as the total fatalities of employees for the year; if the underlying trend was a decrease in fatalities from the prior year it will represent a good news topic (conversely, an increase in fatalities will represent a bad news topic). Graph selection was only tested on graphs coded as ESG.

In the analysis of graph distortion, it was assessed how the company presented the information graphically: were the underlying graph trend lines drawn correctly, understated or exaggerated? According to Jones (2011), the measure used to determine whether a trend is exaggerated or understated is the Graphical Discrepancy Index (GDI) (Tufte, 1982; Taylor and Anderson, 1986). This measure has been widely used in financial graph annual report

[30] Certain companies in the sample did not produce an integrated report for each year of the sample period. These companies did provide reasons for not doing so, in compliance with the JSE listing requirements. Consequently, the total number of integrated reports analysed was less than 112 (28 companies x 4 years) in total.

literature (Beattie and Jones, 1999; Beattie and Jones, 2000), however, in sustainability reporting it has only been used in the study performed by Jones (2011). As a supplementary analysis measure, Jones (2011) used the RGDI Index, however, limited correlation between the GDI and RGDI Index measures was found. Based on this, and taking into consideration the difficulty of interpreting RDI results, the present study measures discrepancy using only GDI scores to evaluate graph distortion. The GDI is determined as follows:

GDI = [(a/b – 1)] x 100%

(1)

a = percentage change in graph

b = percentage change in data

For example, if a graph represents a company's energy consumption and increased from 2 000 000 GJ in the previous year to 4 000 000 GJ in the current year and in the graph the column representing the previous year's data was 2cm in height, the expectation is that the current year's column should be 4cm in height (2cm/2 000 000GJ x 4 000 000GJ). If the actual height of the current year's column is only 3,5cm, the GDI is thus:

a (percentage change in graph) = (3,5 – 2)/2 x 100% = 75%
b (percentage change in data) = (4 000 000 – 2 000 000)/2 000 000 x 100% = 100%
GDI = [(75/100 – 1)] x 100% = - 25%

The topic graphed (energy consumption) represents a bad news topic from the company's perspective and the GDI is negative (understated), this is considered as favourable to the company (see Table 3 in Annexure A). The company has understated a bad news topic by understating the trend line. Similarly, if the graph relates to a good news topic such as recycling and the GDI is positive (exaggerated), it is considered as favourable to the company (see Table 3 in Annexure A). If the GDI is equal to zero, there is no graph distortion present. Graph distortion was only tested on graphs coded as ESG. Non-parametric tests, specifically binomial tests, were used to evaluate the findings.

5. RESULTS

5.1 The extent of use of graphs in integrated reports

The majority of the mining companies used graphs as a means of visual disclosure in their integrated reports. Only 14% (four companies) of all the companies in the sample did not use graphs. A number of the companies which did use graphs did not, however, use them in each year of the study period and 18% (16 integrated reports) of all the integrated reports analysed did not contain graphs. On average, from 2010 to 2013 there were 23 graphs per integrated report (26 graphs, if the four companies which did not use graphs are excluded). The company with the highest usage of graphs had a total of 84 graphs in a 2013 integrated report. The average count of graphs per integrated report decreased from an average of 35 graphs in 2010 to an average of 18 graphs in 2013. The total proportion of pages in an integrated report presented as graphs averaged at 1.8% from 2010 to 2013. The average length of integrated reports decreased from 234 pages in 2010 to 125 pages in 2013. The company with the highest proportion of pages presented as graphs was 9.3% in a 2011 integrated report. The column type of graph was the most popular; on average, 53% of all 1 982 graphs were in column format which is similar to the findings of Beattie and Jones (1999). Forty percent of the graphs presented data of less than one year and 50% of the graphs data of more than one year but less than five years. The majority (65%) of the graphs had two variables. The majority of the graphs were placed within the operational overview for the year provided in the integrated report.

Table 4: Use of graphs in 87 integrated reports

	Graphs
Companies that used graphs	24
Average graphs per integrated report from 2010 to 2013	25
Highest number of graphs per integrated report from 2010 to 2013	84
Average proportion of pages used as graphs from 2010 to 2013	1,8%
Highest proportion of pages per integrated report from 2010 to 2013	9,3%

Due to the unregulated nature of graphs, the topics chosen to be presented as graphs provide an indication of what management considers important to visually communicate to stakeholders. Table 2 below shows the different categories in which graphs were coded: ESG and other. It is evident that mining companies place greatest emphasis on social issues when presenting graphs.

These findings differ from the study conducted by Jones (2011) who found that environmental topics were the most graphed category but confirm the findings of Hrasky (2012) which suggest that social topics had the highest representation as graphs in annual reports. The social topics with the highest representation as graphs were related to safety issues (especially lost-time injury frequency rates), community development, transformation, employee issues (such as the total employment figure and employee turnover) and employee development. The environmental topics with the highest representation in graphs were energy issues, air issues (such as pollution and CO^2 emissions), water issues and waste management.

The use of social graphs compared to environmental and governance graphs was highly significant (0.01 level using a binomial test).

Table 2: Distribution of graphs by category in 87 integrated reports

	No. of graphs	% of graphs
Environmental	154	8%
Social	389[a]	20%
Governance	88	4%
Other	1 351[b]	68%
Total	1 982	100%

[a] The use of social graphs compared to environmental and governance graphs in integrated reports was highly significant (0.01 level using a binomial test).

[b] Other consists of all graphs that could not be classified as ESG (refer to table 1 in Annexure A). For example graphs on financial information.

5.2 Impression management and graphs

Companies preferred to present graphs that illustrate a decreasing trend in a bad news topic, such as a decrease in CO^2 emissions and a decrease in fatalities, and an increasing trend in good news topics, such as an increase in transformation or an increase in energy efficiency. For favourable graphs the results for graphs presenting an increasing trend in good news topics and graphs presenting a decreasing trend in bad news topics were highly significant (0.01 level using a binomial test). Together, this presented 229 graphs favourable to the company rather than 148 graphs which were unfavourable to the company[31]. This finding is in line with the results of Jones (2011). The results for graphs presented favourably and unfavourably were highly significant for total and social graphs (0.01 levels using a one-tailed binomial test at a test probability of 54% for total graphs and 56% for social graphs). The results for environmental and governance graphs presented favourably and unfavourably were not statistically significant. These results are similar to Jones (2011) who found a significant difference between the total favourable and unfavourable graphs. The results for social graphs presented favourably compared to environmental and governance graphs presented favourably were highly significant (0.01 level using a binomial test).

Table 3: Overall analysis of graph selection in ESG topics

	Environmental	Social	Governance	Total
Presented favourably to the company				
- Increasing trend in good news topics	4	53	3	60
- Decreasing trend in bad news topics	50	116	3	169[d]
Total presented favourably	54	169[b,c]	6	229[a]
Presented unfavourably to the company				
- Increasing trend in bad news topics	45	74	1	120
- Decreasing trend in good news topics	2	23	3	28
Total presented unfavourably	47	97	4	148
Total graphs analysed for graph selection	101	266	10	377

[a] The results for total graphs presented favourably compared to total graphs presented unfavourably were highly significant (0.01 level using a one-tailed binomial test).

[b] The results for social graphs presented favourably compared to social graphs presented unfavourably were highly significant (0.01 level using a one-tailed binomial test).

[c] The results for social graphs presented favourably compared to environmental and governance graphs presented favourably were highly significant (0.01 level using a binomial test).

[d] The results for total favourable graphs presenting an increasing trend in good news topics and total favourable graphs presenting a decreasing trend in bad news topics were highly significant (0.01 level using a binomial test).

When the trend line was measured to determine graph distortion, Table 4 below indicates that mining companies tend to distort graphs in their favour, presenting a decreasing trend in a bad news topic. Overall, the results of graph distortion indicated that many South African mining companies did not make use of graph distortion as a form of presentation

[31] The total number of ESG graphs tested for graph selection do not agree to the total graphs in the 87 integrated reports as not all graphs allowed for graph selection to be tested. For example, if the graph (such as a pie chart) only illustrated one year of data, it was not possible to determine whether there was an increase or decrease in trend.

management, compared to findings of other similar studies on UK, Australian and inter-country companies (Beattie and Jones, 1999; Beattie and Jones, 2000; Jones, 2011).[32] This suggests that South Africa might be more conservative regarding impression management and graphs. The difference between the favourable distortions and unfavourable distortions, total and per ESG category was not statistically significant. This finding is in contrast to Jones (2011) that found the difference to be significant. No statistically significant difference was found between the different categories (ESG) of graphs with favourable distortions. These findings remain a suggestion due to the limited sample size of graph distortions found.

Table 4: Overall analysis of graph distortion in ESG topics

	Environmental	Social	Governance	Total
Favourable distortions				
- Increasing trend in good news topics	2	1	0	3
- Decreasing trend in good news topics	0	0	0	0
- Increasing trend in bad news topics	0	0	0	0
- Decreasing trend in bad news topics	3	2	0	5
Total graphs with favourable distortions	5[a]	3[a]	0[a]	8[a]
Unfavourable distortions				
- Increasing trend in good news topics	1	0	0	1
- Decreasing trend in good news topics	0	0	0	0
- Increasing trend in bad news topics	1	2	0	3
- Decreasing trend in bad news topics	1	1	0	2
Total graphs with unfavourable distortions	3	3	0	6
Total graphs identified as containing graph distortion	8	6	0	14

[a] When the results were compared between favourable and unfavourable distortions (total and per ESG category) it was not statistically significant.

6. CONCLUSION

The aim of this paper was to evaluate if impression management is used in visual ESG disclosures in integrated reports of the South African mining sector. To achieve this, the study investigated the use of graphs and impression management in graphs in 87 integrated reports of companies in the South African mining industry through manual content analysis. The measures for impression management in graphs (Jones, 2011) were graph selection (the topic chosen to be graphed and its underlying trend) and graph distortion (whether the

[32] Only graphs in which an underlying trend could be established (presenting more than one year's data) could be tested for graph distortion. All the graphs with underlying trends were tested for graph distortion, however, the majority did not display any form of graph distortion.

company presented the information graphically correct: were the underlying graph trend lines drawn correctly). Non-parametric tests, specifically binomial tests, were used to evaluate the findings on graphs. The following key findings were identified from the analyses performed.

The first research objective was to evaluate to what extent South African mining companies make use of graphs as a disclosure strategy in integrated reports. Graphs are widely used by companies in ESG disclosures. Of the sample of 28 companies, only four companies did not make use of graphs in the integrated reports. This finding suggests that graphs are an important part of companies' disclosure strategy. The use of graphs was the highest in social disclosures and statistically significant compared to graphs used in environmental and governance disclosures. The second research objective was to evaluate whether management of South African companies make use of impression management in ESG graphs used in integrated reports. The measures for impression management were graph selection and graph distortion. In the analysis of graph selection in ESG disclosures companies presented more favourable (229) than unfavourable graphs (148). This finding was highly significant for the total ESG graphs and suggests that management do use impression management in the selection of ESG graphs to be presented. In the analysis of graph distortion companies presented more favourable distortions (8) than unfavourable distortions (6). This finding was however not statistically significant. The third research objective was to evaluate whether impression management is more prevalent in graphs of environmental, social or governance disclosures. The favourable graphs used in social disclosures were highly significant in comparison to environmental and governance disclosures. A more detailed analysis of graph selection in each category of ESG disclosures revealed that companies presented significantly more favourable graphs than unfavourable graphs in social disclosures. The findings for environmental and governance disclosures were not statistically significant. This suggests that impression management is most prevalent in graphs of social disclosures.

To summarise the findings: management employ graphs as a disclosure strategy in integrated reports, impression management in the form of graph selection was evident and significant in ESG graphs and lastly impression management was most prevalent in social graphs.

A limitation of the study is that the sample size is limited to the mining industry in South Africa and the jurisdiction of the JSE and thus is not generalizable to all South African companies or international companies. Lastly there may be other variables influencing the use of impression management in graphs in ESG disclosures which were not taken into consideration.

This study confirms the findings of Jones (2011) and Hrasky (2012) which suggests that management do use graphs as a disclosure strategy in ESG disclosures. The findings suggest that social disclosures are the most graphed and category of disclosure. Social graphs were highly significant compared to environmental and governance graphs. This suggests that the management of mining companies is most concerned with managing the impressions of stakeholders regarding socially-related topics. This finding agrees with Hrasky (2012) but differs from Jones (2011) who found environmental graphs to be the most graphed category of disclosures. The findings of this study suggest that management do use impression management in the form of graph selection but not graph distortion in ESG graphs. The finding regarding graph selection agrees to Jones (2011), who similarly found companies to rather select and present favourable than unfavourable graphs. However, the finding regarding graph distortion does not agree to Jones (2011), who found companies to distort the underlying trend of the graph in the company's favour.

This study fills an important and relevant gap in current literature by analysing whether impression management is actually used in visual ESG disclosures in integrated reports in South Africa or whether the suggested impression management concluded from interviews with institution investors is merely a myth (Atkins and Maroun, 2015). In addition, this study fills a gap in existing literature as it is more comprehensive in the analysis of graphs (Benschop and Meihuizen, 2002; Shen and Samkin 2008; Campbell *et al.,* 2009; Jones, 2011; Hrasky, 2012), and focuses on ESG disclosure in total as well as each of the individual components thereof.

The findings of this study are of relevance to all the different users of integrated reports, management of companies and regulatory bodies. The relevance of the findings to each of these groups are discussed in more detail in the introduction of the paper.

This study can be extended by analysing the time dimension of the use of graphs and impression management by analysing a longer period and comparing data on a year to year basis. A longitudinal study analysing how visual disclosure strategies evolved pre- and post-integrated reporting can also be interesting. It can also be extended to other industries to compare the findings between different industries.. Companies in more sustainable-driven industries can be compared to companies in less-sustainable driven industries. It will be interesting to determine whether disclosure strategies are different regarding the use of visual disclosures between these different industries. The disclosure tone of "captions" of graphs can be further analysed. In addition, the extent to which the information portrayed in graphs agrees with the information and data in the narrative disclosures can be analysed. An interview based study with management, to determine from their perspective the motivation, process, considerations and problems which they experience in selecting and disclosing graphs in integrated reports can provide additional insight regarding visual disclosure strategies. It can also be extended to the analysis of photographs and how photographs are used in visual ESG disclosure. And lastly, the economic consequences of impression management and the use of graphs in integrated reporting, such as share prices, earnings quality and cost of capital can be analysed.

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Annexure A

Table 1: ESG coding instrument (Carels *et al.,* 2013)

Social (S)	Environmental (E)	Ethical (G)
Employment turnover	Compliance	Integrity/business integrity
Safety issues	Energy	Accountability
EE health issues	Air	Transparency/openness
EE development	Water	Responsibility/responsible employer
EE transformation	Waste	Ethical standards/values/code/good corporate citizen
Compliance	Rehabilitation	
Community development	Initiatives	
General social concerns	General	

The coding instrument of Carels et al. (2013), illustrated in table 1 above, was used to classify the subject matter of each graph as either environmental, social or governance (ESG) for further analysis per sub-category.

Table 2: Classification of graph selection (Jones, 2011)

	Classified as a good news topic based on trend	Classified as a bad news topic based on trend
Increasing trend in a good news topic	☐	
Decreasing trend in a good news topic		☐
Increasing trend in a bad news topic		☐
Decreasing trend in a bad news topic	☐	

Table 2 above was used to analyse graph selection and whether the graph selected for disclosure represents good news or bad news from the company's perspective based on the topic chosen to be graphed (a good news topic such as recycling or a bad news topic such as fatalities for the year) and its underlying trend (an increasing trend or a decreasing trend).

Table 3: Classification of graph distortion (Jones, 2011)

Nature of news (topic and trend)	Trends exaggerated	Trends understated
Good news (increase in recycling)	Favourable to company	Unfavourable to company
Bad news (increase in greenhouse emissions)	Unfavourable to company	Favourable to company
Good news (decrease in greenhouse emissions)	Favourable to company	Unfavourable to company
Bad news (decrease in recycling)	Unfavourable to company	Favourable to company

Table 3 above was used to determine whether the graph distortion is favourable or unfavourable to the company. If the GDI calculated relates to a good news topic such as recycling and it is positive (exaggerated), it is considered as favourable to the company. Similarly, if the GDI relates to a bad news topic such as fatalities for the year and it is negative (understated), it is considered as favourable to the company.

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FAC005 An analysis of non-IFRS earnings measures presented by South African JSE listed companies

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ABSTRACT

This paper investigates the extent to which non-IFRS earnings measures (defined as a voluntarily presented earnings measure, whose calculation is not obvious from its title) are presented within the integrated reports of the top 40 companies listed on the Johannesburg Stock Exchange (JSE) in the 2015 financial year. In addition to this, the differing descriptions of non-IFRS earnings measures, and the adjustments made in calculating these measures, are identified and analysed for consistency. Finally, this study compares the value of non-IFRS earnings to both the value of IFRS earnings and headline earnings, in order to identify whether non-IFRS earnings are predominantly higher or lower than the other measures. This study finds that 21 of the JSE Top 40 companies (53%) present non-IFRS earnings measures, of which the most common titles are 'adjusted earnings'; 'normalised headline earnings' and 'underlying earnings'. The most common adjustments made in calculating these measures were 'fair value adjustments', 'restructuring costs' and 'amortisation'. Furthermore, 11 companies reported non-IFRS earnings that are greater than IFRS earnings, and 10 companies reported non-IFRS earnings that are greater than headline earnings. The nature of the adjustments made in calculating headline earnings was not consistent with the nature of adjustments made in calculating non-IFRS earnings. The results suggest that the majority of South African companies are presenting non-IFRS earnings measures, with large variability in title, of which the majority contain income-increasing adjustments that are dissimilar to the adjustments made for headline earnings purposes.

Key words: non-IFRS earnings measures; headline earnings; performance reporting; IFRS.

INTRODUCTION

The Integrated Reporting Committee of South Africa (IRCSA) has stated that the collapse of a number of high-profile companies over the past decade has led to stakeholders doubting the reliability and relevance of financial information presented in financial reports as a primary basis for decision making by investors and stakeholders (IRCSA, 2011). Stakeholders have urged companies to provide more forward-looking and reliable information to enable effective evaluation of the economic operations of a company and its ability to create value (IRCSA, 2011).

Generally Accepted Accounting Principles (GAAP) such as International Financial Reporting Standards (IFRS), issued by the International Accounting Standards Board (IASB) are used in the preparation of financial statements contained within annual reports, and now within integrated reports of South African listed companies. The International Integrated Reporting Framework, published by the International Integrated Reporting Council (IIRC) in 2013 provides guidance on the purpose and content of an integrated report. These reports are the primary mechanism used by companies to communicate information to their providers of financial capital (De Villiers, Rinaldi & Unerman, 2014; IIRC, 2013). However, the International Integrated Reporting Framework and IFRS[33] allow some flexibility to companies in determining what financial information is reported (IIRC, 2013; IASB, 2016). This flexibility has facilitated the reporting of additional discretionary performance measures in corporate reporting (Libby & Emett, 2014).

Management have used this discretion to present non-IFRS earnings measures[34] which are derived by adjusting the IFRS information to a figure that they believe is more useful to users in understanding the underlying performance of a company (Libby & Emett, 2014; CFA Society of the United Kingdom, 2015). For the purpose of this study, non-IFRS earnings measures are defined as voluntarily presented earnings measures, whose calculation is not obvious from its title, for example 'normalised earnings'.

The use of non-IFRS earnings measures has attracted increased attention (De Villiers, et al. 2014; CFA Society of the United Kingdom, 2015; PriceWaterhouseCoopers, 2014; Hoogervorst, 2015). The studies already conducted have focused mainly on developed economies. Hoogervorst (2016) highlighted the lack of academic research on the topic of performance reporting and the need for such research, given that academic literature enables the separation of evidence from opinion.

The aim of this study is therefore to contribute towards meeting this need, by exploring the extent to which non-IFRS earnings measures are presented by the Top 40 JSE listed South African companies. Furthermore, this study identifies the extent to which there is consistency in the descriptions (or titles) for these measures and the adjustments made in calculating these measures. Finally, a comparison per company of the monetary value of the non-IFRS earnings measures with the IFRS and headline earnings monetary values is presented.

[33] For example IAS 1 Presentation of financial statements, and IFRS 8 Operating segments, which permit or require disclosure of different earnings measures.
[34] Also referred to as non-GAAP measures.

The scope of this study is restricted to an investigation of non-IFRS *earnings* measures as opposed to *all* non-IFRS alternative performance measures[35]. This study therefore aims to provide insight into one specific group of alternative performance measures: namely, non-IFRS *earnings*.

A literature review follows that includes a brief history of GAAP and the development of IFRS, both internationally and within South Africa. Thereafter a discussion follows on the arguments in favour of and against the use of non-IFRS earnings measures, including the extent to which non-IFRS earnings is presented internationally. Finally, the purpose and contents of an integrated report and the concept of headline earnings is expounded upon.

LITERATURE REVIEW

History of GAAP and the IASB

GAAP provides the broad and detailed guidelines, rules and procedures related to the general accounting process. Formalised GAAP principles were first introduced in 1930 in an attempt to create a uniform set of financial reporting requirements to prescribe the treatment of various accounting events (Zeff, 2005). The accounting academic literature and knowledge has since grown in response to the change in business needs (Fischer & Tayler, 2015).

The International Accounting Standards Committee (IASC) was formed in 1973 with the goal of publishing accounting standards that would result in international accounting harmonisation (Fischer & Tayler, 2015). Since its inception, the IASC began the process of producing a core set of accounting standards, which became the financial reporting basis used by various multinational companies with cross-border listings (IFRS Foundation, 2016). In 2001, the IASC was superseded by the IASB who maintained the objective of developing and communicating a single set of high quality, understandable and globally accepted financial reporting standards (Fischer & Tayler, 2015). These standards are known as IFRS.

In order for the IASB to achieve its harmonisation objective, it continues to conduct extensive public consultations and seeks to gain co-operation from other international accounting regulatory bodies (IFRS Foundation, 2015). Significant progress has been made in promoting the use of IFRS, as over 140 counties have since adopted and now use the standards (IASB, 2014). However, the accounting regulatory board in the United States, the Financial Accounting Standards Board (FASB), has not yet adopted IFRS, which has been, and continues to be, a significant challenge to the IASB's objective of developing a unified set of international accounting standards (IFRS Foundation, 2016).

Accounting Standards development: South Africa

From a South African perspective, the South African Institute of Charted Accountants (SAICA) formed the Accounting Practises Board (APB) in 1973, which was tasked with developing generally accepted accounting practise for South Africa (SA GAAP), which was largely aligned with IFRS. In 2005, South Africa became one of the 140 countries to adopt IFRS, resulting in IFRS replacing SA GAAP. The Companies Act 2008 subsequently

[35] Non-IFRS alternative performance measures include for example, margin ratios or 'per share' measures, which are beyond the scope of this study.

required all listed companies (amongst others) to comply and use IFRS as their basis for accounting statement preparation (Republic of South Africa, 2008).

Arguments in favour of and against the use of IFRS

The IASB explains that accounting standards play a vital public interest role in the form of transparency, efficiency and accountability to the global economy (Hoogervorst, 2016). IFRS standards however have been criticized as being complex and difficult to understand by users (Bhatia, 2013), a criticism which the IASB has acknowledged. The IASB continue to engage with investors to ensure IFRS standards provide sufficient information by which users are able to judge company performance (Hoogervorst, 2016).

Proponents of IFRS explain that some of the positive characteristics of IFRS standards include the elimination of choices in accounting treatments; the fact that IFRS is principle-based (rather than overly prescriptive); and that the disclosure requirements are helpful in making an assessment of the entity's future cash flows (Graham & Winfield, 2010; CFA Society of the United Kingdom, 2015).

Negative characteristics of IFRS include the complexity of the standards and that the guidance provided is often lengthy and complex itself (Graham & Winfield, 2010; Bhatia, 2013). In addition, some users' potential inability to understand and process the information presented may lead to distorted or incorrect decision making. Further criticism is based on the argument that financial statements do not provide an accurate interpretation of companies' core operations (Young, 2014).

The IASB is aware of these negative perceptions and have acknowledged the difficulties involved in setting standards, which requires a multifaceted approach on the influences these standards may have on various companies and economies. However, their objective remains that of providing a global set of understandable and principle-based accounting standards (Hoogervorst, 2016).

A current problem facing the IASB is that of defining performance. Debate has arisen as to whether or not financial statements prepared in accordance with IFRS provide the necessary tools for an investor to evaluate and compare company performance (Hoogervorst, 2016). Currently, IFRS allows flexibility in the presentation of the components that make up a company's profit or loss. Although the IASB believe that the most important indicator of performance is a company's profit (IASB, 2015), the flexibility of performance presentation has allowed managers to incorporate non-IFRS earnings measures (Hoogervorst, 2016). The IASB has expressed that these measures have their benefits, however there is concern as to whether non-IFRS earnings are "getting increasingly detached from reality" (Hoogervorst, 2016:5).

Non-IFRS earnings: Measure of Performance

Non-IFRS earnings are measures that are calculated by adjusting the reported IFRS profit for various items, in order to obtain a measure that management often perceive to be a more reliable representation of company performance (Entwist, Feltham & Mbagwu, 2010; CFA Society of the United Kingdom, 2015).

Part of the rational for making these adjustments, is that IFRS earnings are not always seen to accurately reflect the results of business operations (Young, 2014). Studies have shown that more than 88% of S&P 500 companies (Hoogervorst, 2016) and 95% of Financial Times Stock Exchange 100 Index (FTSE 100) companies (PriceWaterhouseCoopers, 2016) are now disclosing non-IFRS earnings, an indication of the increasing popularity of the use of non-IFRS earnings in various jurisdictions (Young, 2014).

In addition, the CFA Society of the United Kingdom (2015) conducted a survey whereby 292 UK managers provided their response on the usefulness of non-IFRS earnings in financial reports. The survey found that 61% of respondents use non-IFRS earnings as a measure of performance on a regular basis. This was consistent with findings of a similar study conducted by PriceWaterhouseCoopers (PWC) in 2014 whereby 65% of respondents found adjusted profit figures to be useful in their analysis. These studies provide evidence that investment professionals are incorporating the adjusted metrics into their investment decisions.

Dichev, Graham, Harvey, & Rajgopal (2015) recently conducted a large-scale survey interviewing 375 Chief Financial Officers, of which the hallmarks of ‘earnings quality’ were described as “sustainable” and “without the presence of one-time items”. Moreover, earnings quality was shown to be shaped by factors that are both controllable by management and uncontrollable, making it difficult for investors and other stakeholders to make sense of financial information (Dichev et al. 2015). Graham, Harvey & Rajgopal (2005: 4) found that financial executives regarded earnings measures as being the “most important performance metrics disclosed to investors”, together with a description of the adjustments made by management in calculating these measures. Various studies conducted over the past few decades have shown evidence that non-IFRS earnings may be more predictive of future operating performance (Brown & Sivakumar, 2001; Curtis, McVay & Whipple, 2014).

Barton, Hansen & Pownall (2010) used eight different performance measures to test the value-relevance of 20 000 firms in 46 different countries. The study used various measures including that of ‘sales’, ‘EBITDA’, ‘operating income’, ‘income before income taxes’, ‘income before extraordinary items and discontinued operations’, ‘net income, total comprehensive income’ and ‘operating cash flows’. The study identified factors that would provide evidence of a measurement metric being value-relevant. The factors examined included ‘Persistence’, ‘Predictability’, ‘ Smoothness’, ‘Predictability of Future Cash Flows’, ‘Substitute for Cash Flow’‘, Conservatism’ and ‘Timeliness’. The conclusion reached was that of differences amongst different countries with no one measure clearly outweighing other in terms of relevance to investors. The study did find that ‘EBITDA’ and ‘operating income’ measures exhibited more value-relevance than the other measures.

Coulton, Ribeiro, Shan & Taylor (2016) performed a similar study that showed that non-GAAP measures have substantially smaller variation from year to year, and have less extreme annual variations than for GAAP earnings results. A finding that potentially supports the above study relating to greater ‘smoothness’ of non-GAAP earnings. The value relevance[36] of the non-GAAP measures is outside of the scope of this research paper however it should be noted that Bhattacharya, Black, Christensen and Larsen (2003) and

[36] Value relevance is the ability of a metric to explain or fundamentally describe a measure’s usefulness with respect to an investors decision making (Barton et al., 2010).

Barton et al. (2016) both identified, using differing sample sizes, evidence that the non-GAAP measures are more informative and permanent that that of GAAP earnings.

Young (2014) illustrated that the most frequent adjustments during the period 1998-2000 were that of excluding depreciation and amortisation from reported earnings. Management justified these adjustments as non-recurring items that related to the historic cost-based estimates that were not representative of the current and future expenditure of companies (Young, 2014). A more recent study conducted by the CFA Society of the United Kingdom (2015) on FTSE listed companies found that non-IFRS earnings were being used to better approximate cash earnings by removing the effects of amortisation and impairments of assets such as intangibles.

Non-IFRS earnings measures are therefore widely used, and believed to be beneficial, although concerns and criticisms of these measures exist.

Non-IFRS earnings: concerns and criticisms

An opposing view on the usefulness of non-IFRS information, is that presenting such information reduces comparability amongst entities (Australian Securities and Investments Commission, 2011). The adjustments made and descriptions used have at times been seen as confusing and potentially misleading to investors and financial statement users (Standard and Poor, 2014; PWC 2016). PWC (2016) found that within the FTSE 100 companies, 28% (£6 billion) of adjustments remained undisclosed, as the adjustments could not be assigned to a relevant category or balance within the financial statements.

A study was conducted by Standard and Poor (2014) in which the four annual reports prior to June 2012 of 10 financial companies on the FTSE 100 were examined. The study investigated whether these companies reported non-IFRS earnings that were higher or lower than IFRS earnings over this period. The study found that five out the ten companies reported non-IFRS earnings that were higher than that of IFRS earnings for *three years*, with the remaining five having the *same result* but for *fou*r *years*. Following these findings, Standard and Poor (2014) expressed concern that financial statement users must remain vigilant to the risk that management may prioritise adjusting for exceptional charges (i.e. expenses) more frequently than exceptional credits (i.e. incomes). The issue relating to the degree of flexibility open to management to define and adjust for exceptional items is an area of concern to the IASB and other regulators, as it makes comparability difficult between different companies and financial periods (Hoogervorst, 2016).

A more detailed examination of the potential consequences of non-IFRS earnings reporting was presented by Libby & Emett (2014), who stated that users may find it difficult to process the relevance of non-IFRS earnings measures and adjustments, resulting in differing conclusions on essentially the same underlying information.

Further to this, Libby & Emett (2014) discuss the phenomenon that users react differently depending on the placement of accounting information within the reports. Behavioural psychology theory suggests that cognitive biases, in addition to management exploiting their presentation discretion, can result in the misleading of users, especially when the adjusting item is material and the adjustment can transform a loss into a profit (Young, 2014).

The IASB and other stakeholders have consulted on the degree to which harmonisation of non-IFRS earnings reporting can be achieved, in order to enhance comparability (PWC, 2014; CFA Society of the United Kingdom, 2015). Hoogervorst (2016) confirmed that the IASB is investigating the possibility of defining more subtotals in the income statement, incorporating a principle-based operating income definition as well as providing a definition for the commonly used non-IFRS earnings measures, such as Earnings before Interest and Tax (EBIT).

Amidst the concerns and criticisms of using non-IFRS earnings, the IASB and other regulatory bodies have however acknowledged that additional measures presented by management may be useful to users, as long as reconciliations that identify the adjustments made are disclosed (PWC, 2007).

A solution to the concerns of the international community regarding the use of non-IFRS earnings measures may be the formation of clear definitions for such measures, disclosure of reconciliations of non-IFRS earnings measures to IFRS measures, and appropriate assurance of these measures.

South African context

i. Integrated reporting

Since March 2010, many South African companies have been preparing ‘integrated reports’, in accordance with a JSE listing requirement. This requirement forms part of the broader requirement to comply (or explain areas of non-compliance) with the King Code on Corporate Governance 2016 (‘King IV’[37]), which encourages preparation of an ‘integrated report’ (JSE, 2014:425). The International Integrated Reporting Framework states that “the primary purpose of an integrated report is to explain to providers of financial capital how an organisation creates value over time” (IIRC, 2013). This framework allows management the presentation and content discretion discussed earlier, as it is not prescriptive, but rather principle-based, in order to accommodate the reporting of different organisations and different circumstances. Key performance indicators (KPIs) are not prescribed by the International Integrated reporting Framework, but an integrated report must contain material information on company performance (IIRC 2013: 28), which includes the effect on financial capital. Users of integrated reports can benefit from an informed assessment of the value-creating ability of the company (De Villiers et al., 2014). The Association of Chartered Certified Accountants (ACCA) conducted interviews amongst the South African institutional investment community and found that these investors view integrated reports as an improvement in disclosures for the purpose of investment decision making (ACCA, 2014).

Integrated reporting is therefore relevant to this study, given the requirement for JSE companies to prepare integrated reports; the reports’ purpose of providing relevant information on value creation (which includes financial performance); the discretion available for the report’s contents; and the usefulness of integrated reports to investors.

ii. Headline Earnings

[37] King IV replaces King III, which was effective during the financial year analysed in this study. King III contained the same requirement as King IV to ‘apply or explain’ areas of non-compliance.

In South Africa, some consistency in the type of adjustments made in calculating a non-IFRS earnings measure has been achieved, due to the JSE-required disclosure of 'Headline Earnings' (SAICA, 2007; CFA Society of the United Kingdom, 2015).

SAICA (2007: 6) describes headline earnings as "not a departure from IFRS, [but] a way of dividing the IFRS-reported profit between re-measurements that are more closely aligned to the operating/trading activities of the entity and the platform used to create those results". The advantage of Headline earnings is that a detailed set of rules exists for the calculation of headline earnings and the disclosure requirements. Clearly defined, required, adjustments enable companies to report results that are not influenced by managers' discretionary choices (Venter, Emanuel & Cahan, 2014).

Although the requirement that consistent adjustments be made has been criticised by some investors who question the appropriateness of some of the adjustments (CFA Society of the United Kingdom, 2015), headline earnings was found to be a better representation of firm performance than that of IFRS earnings (Venter et al, 2014). The higher value relevance of headline earnings is considered to be due to the use of consistent adjustments and terminology.

Finally, unlike other non-IFRS earnings measures, headline earnings is subject to audit. This provides investors with greater surety over information reported by management, which aids in its usefulness.

Conclusion

A review of past literature has provided insight into the historical use of non-IFRS earnings measures presented in companies financial reports. It is clear that there is both support and criticism of the presentation of non-IFRS metrics. Recent studies provide evidence that non-IFRS performance measures are useful to investors and can provide valuable insight into the current and future operations of a company. The main consequences however include a lack of comparability of non-IFRS earnings measures across companies and a lack of clarity in the type of adjustments made to arrive at non-IFRS earnings, which may result in investors making inappropriate decisions. The JSE requirement that companies present an integrated report, provides companies with flexibility in selecting and presenting meaningful measures of performance. In South Africa, the requirement to calculate and disclose headline earnings, is a unique case of a clearly defined, comparable, non-IFRS earnings measure.

METHODOLOGY

Due to the lack of research on the use of non-IFRS earnings within South Africa, the methodology for this study will take a similar approach to studies conducted by the CFA Society of the United Kingdom (2015) and PWC (2016). The focus of this study will be to:

1. Identify the number of companies reporting non-IFRS earnings measures, and the types of non-IFRS earnings measures presented.
2. Where reconciliations of these measures to IFRS earnings are provided, identify the more common adjustments used to calculate the non-IFRS earnings measure. Also note any reason given for choosing to present the non-IFRS earnings measure.

3. Compare the value of non-IFRS earnings to that of IFRS earnings.
4. Compare the value of non-IFRS earnings to that of headline earnings, and briefly investigate whether consistent adjustments are made in these calculations.

Sample:

The sample comprises of the top 40 JSE listed companies, ranked according to market capitalisation (Refer to Appendix 1). The scope of the sample was limited to the top 40 companies due to these companies making up approximately 51% of the JSE market capitalisation.

The 2015 integrated reports of the top 40 companies were used to collect the necessary information required for analysis. The rational for choosing to use integrated reports was twofold. The first being that the contents of integrated reports are not regulated by binding legislation, but rather by the International Integrated Reporting Framework. There is therefore discretion with respect to the type of information presented. Secondly, a number of companies state that their integrated report is their primary report to the providers of financial capital (refer to Appendix 1 for a list of such companies), and therefore an excellent source of information considered most relevant for decision making (ACCA, 2014).

The sample includes companies which are dual listed and do not prepare integrated reports. For these companies, the annual reports were used as the source of non-IFRS earnings information.

If the company presented their results in a currency other than South African Rands (i.e. a foreign currency), the analysis was conducted using the foreign currency amounts.

The IFRS earnings measure used as the basis of comparison with the non-IFRS earnings measure, was 'earnings attributable to the parent equity holders' in order to remove any effect of non-controlling interest on earnings.

Method

A four-step process was applied:

Step 1: Identification of non-IFRS earnings (APM)

Each company's integrated report cover page; financial performance highlights; Chief Executive Officer (CEO) and Chairman's reports were examined for presentation of a non-IFRS earnings measure. The analysis was limited to these two sections to focus on the main custodians of corporate governance as well as for consistency purposes, as some companies integrated reports did not Chief Financial Officer commentary. The search was limited to these sections of the integrated report, as company performance is addressed in at least one of these four sections (if not in all sections), and should therefore contain voluntarily-disclosed non-IFRS earnings measures (if disclosed at all). The term used to describe the non-IFRS earnings measure was recorded, and the results tabulated.

Step 2: Reconciliation and explanation

The financial statements were scrutinised to determine whether a reconciliation of non-IFRS earnings adjustments was provided. The types of adjustments made were captured in order to identify common adjustments.

Furthermore, if a reason for presenting the non-IFRS earnings was provided, the fact that such a reason was given was noted.

Step 3: Recording of the monetary value of non-IFRS earnings relative to IFRS-earnings

The monetary values of earnings attributable to parent equity holders ('IFRS earnings') and the non-IFRS earnings were recorded. A comparison of values was conducted using the following ratio:

- Non-IFRS earnings as a % of IFRS earnings

In some cases, there was some uncertainty as to whether the non-IFRS earnings measure used by management was an amount attributable to parent equity holders only, or to all equity holders (including non-controlling interest). In these cases, it was assumed that the non-IFRS measure was attributable to parent equity holders to facilitate the comparison and commentary of results.

Step 4: Recording of the monetary value of non-IFRS earnings relative to headline earnings

The monetary value of headline earnings was recorded. A comparison of values was conducted using the following ratio:

- Non-IFRS earnings as a % of Headline earnings

These ratios (described in steps 3 and 4) were used to provide insight into the relationship between these earnings measures as well as a basis for a brief comparison to previous studies conducted in other countries by PWC (2016) and CFA Society of the United Kingdom (2015).

RESULTS

In analysing the integrated reports of the Top 40 JSE listed companies, it was found that 21 of these companies (53%) presented a non-IFRS earnings measure for the 2015 financial year. Although this is less than the findings internationally (i.e. 88% of Standard and Poor companies and 95% of FTSE 100 companies), this study ignores headline earnings as a non-IFRS earnings measure, as it is required to be presented by the companies in the sample, and is therefore not discretionary. There is therefore an expectation that these results would be lower than what was found internationally.

These results are further analysed in the following four sections:

I. Common terms used to describe non-IFRS earnings

II. Common non-IFRS earnings adjustments

III. Comparison between non-IFRS earnings and IFRS earnings by company

IV. Comparison between non-IFRS earnings and headline earnings by company

Each section will be accompanied by a graph, discussion and insight regarding the results, after which a comparison of findings of similar international studies is provided where appropriate.

I) Common terms used to describe non-IFRS earnings

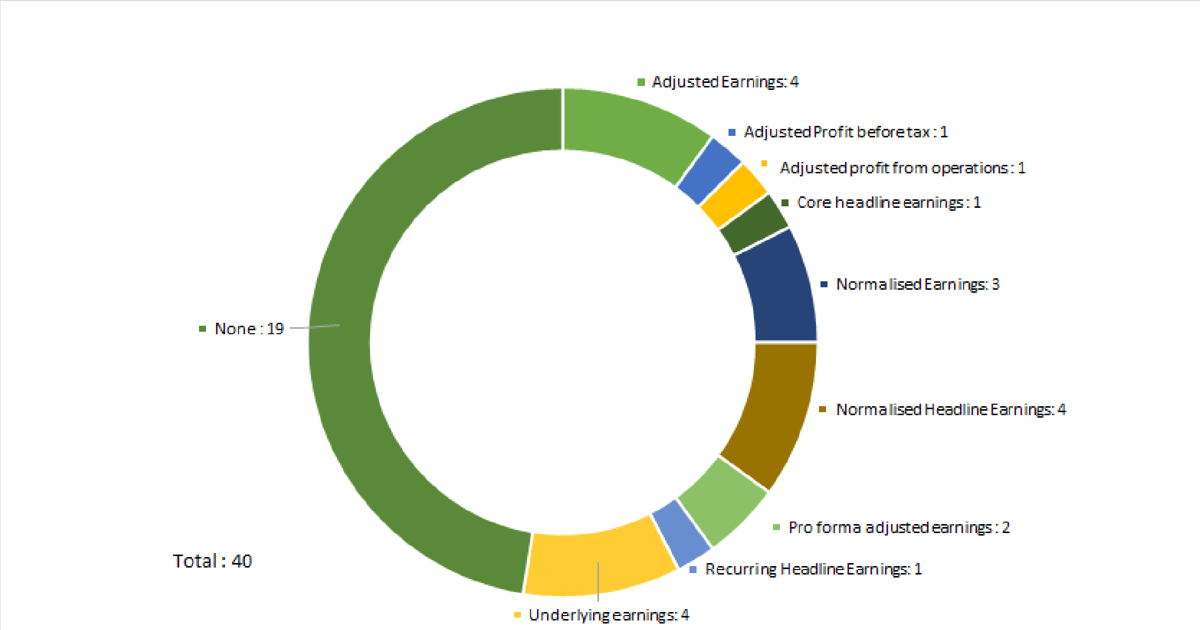


Figure 1: Non-IFRS earnings descriptions used by JSE Top 40

As shown in Figure 1, the research found that nine different terms were used by the 21 companies that presented non-IFRS earnings. The most commonly used terms were adjusted earnings (19%), normalised headline earnings (19%), underlying earnings (19%) and normalised earnings (14%).

In analysing the adjustments made to calculate these figures it is apparent that even when the same term is used to describe the non-IFRS earnings, the adjustments differed. An example of this is FirstRand Ltd ('FirstRand') and Rand Merchant Insurance Holdings Ltd ('RMIH'), both of whom presented Normalised Earnings as a non-IFRS earnings measure. Further examination of the adjustments made by these companies found that FirstRand made two adjustments compared to seven adjustments made by RMIH. FirstRand made adjustments for an IFRS *2 Share Based Payments* expense and an IAS 19 *Employee Benefits* remeasurement, whereas RMIH included and excluded amounts relating to items such as fair value adjustments, amortisation of intangibles, and restructuring expenses. This highlights the importance of presenting reconciliations for non-IFRS earnings measures, as without a detailed reconciliation, investors may potentially make inappropriate comparisons between commonly used descriptions.

The dispersion of commonly used terms to describe the earnings performance is similar to that found in the PWC (2014) study conducted on the FTSE 100 companies, which found that over eight different terms were used to describe the non-IFRS earnings. The variety of terminology and variability of adjustments made, may hinder an investor's understanding of such earnings measures, and require further financial statement analysis by such investors.

Company	Reconciliation	Chairman/CEO Report	Front Page	Non-IFRS Earnings explanation
Investec Plc	-	-	Yes	-
Sabmiller Plc	Yes	Yes	Yes	-
Glencore Plc	-	Yes	Yes	-
Old Mutual Plc	Yes	Yes	Yes	Yes
Woolworths Holdings Ltd	Yes	-	Yes	-
British American Tob Plc	Yes	Yes	Yes	Yes
Naspers Ltd	Yes	Yes	Yes	-
Firstrand Ltd	Yes	Yes	Yes	Yes
Rand Merchant Ins Hldgs	Yes	Yes	Yes	-
Rmb Holdings Ltd	Yes	Yes	Yes	-
Aspen Pharmacare Hldgs L	Yes	Yes	Yes	-
Sanlam Ltd	Yes	-	Yes	Yes
Discovery Ltd	Yes	Yes	Yes	-
Mediclinic Internat Ltd	Yes	Yes	Yes	Yes
Standard Bank Group Ltd	Yes	Yes	Yes	Yes
South 32 Ltd	Yes	Yes	Yes	Yes
PSG Group Ltd	-	Yes	Yes	Yes
BHP Billiton Plc	Yes	-	-	Yes
Intu Properties Plc	Yes	Yes	Yes	Yes
Capotal&Counties Prop Plc	Yes	Yes	Yes	-
Mondi Plc	Yes	Yes	Yes	Yes
	18/21	17/21	20/21	11/21
	86%	**81%**	**95%**	**52%**

Figure 2: Location of non-IFRS earnings and inclusion of reconciliation

An analysis of the location of the non-IFRS earnings within each company's integrated report is provided in Figure 2. Of the 21 companies that presented non-IFRS earnings, 95% were included on the front page of the integrated report within the company performance summary and 81% were further discussed within the CEO and/or Chairman's report. The inclusion of non-IFRS earnings measures within these first few key pages of the integrated report, is an indication of the usefulness that management perceives of these measures.

II) Common non-IFRS adjustments

It is encouraging that 17 of the 21 companies (81%) who reported a non-IFRS earnings measure also included a reconciliation that clearly outlined the adjustments made. This result is slightly lower than the 98% obtained by PWC (2014).

Zhang and Zheng (2011) found that the adjustments to non-IFRS measures that are not accompanied by an adequate reconciliation may mislead investors. In addition, the CFA Society of the United Kingdom (2015) found that investors lacked sufficient time to adequately understand the adjustments made by management, when these adjustments were not clearly explained. These studies emphasise the importance of presenting understandable reconciliations.

Investor understanding can be further supplemented when management provides an explanation of their rationale for presenting the non-IFRS earnings. Only 52% of companies provided an explanation of why the non-IFRS earnings were used. The 11 reports which did so were analysed to determine whether common phrases or trends were used by management. The results of this analysis identified three distinct yet common themes within each explanation:

1. Non-IFRS earnings were more representative of “overall business” operations (Glencore, 2015: 26), or the measures were a more accurate “reflection of its underlying performance” (Old Mutual, 2015: 184; South 32, 2015: 65). Further to this theme, Sanlam (2015: 155) described IFRS earnings as “not a true representation of earnings”.
2. The second theme was the characteristic that non-IFRS earnings are a more accurate indicator of “long term performance” (Old Mutual, 2015: 152) and a “reliable indicator of sustainable operating performance” (Naspers, 2015: 18; PSG, 2015).
3. The final theme was that non-IFRS earnings avoid “artificial accounting mismatches” (Sanlam, 2015: 155) and that it allows investors to more accurately evaluate the performance of a company.

The common themes identified above are compatible with the findings of Entwist et al (2010), who found that managers believe that adjusted earnings measures provide more value-relevant information of a company’s long term core operations.

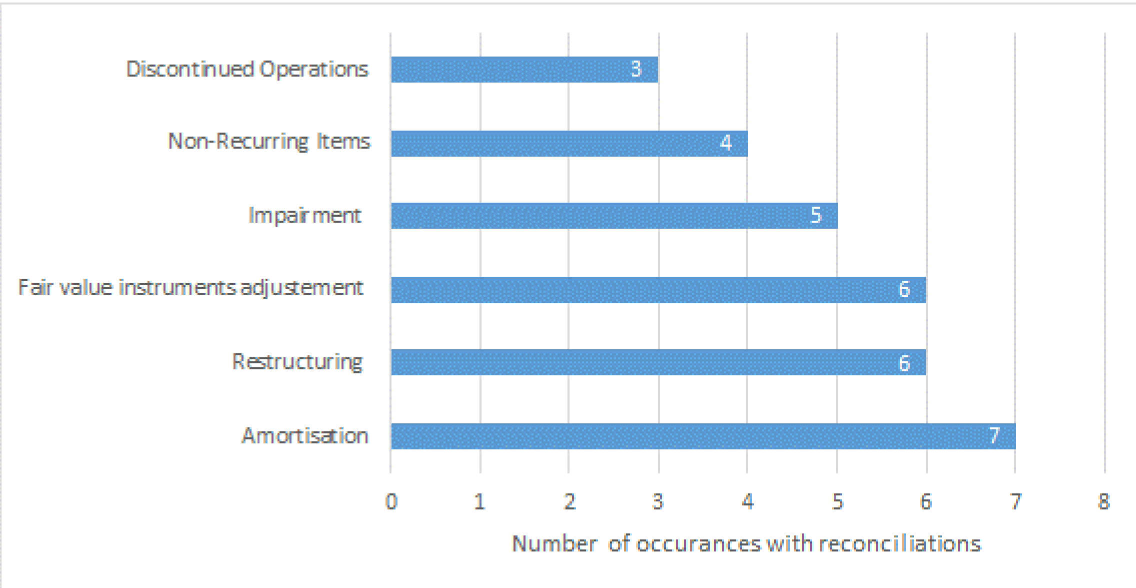


Figure 3: Most common non-IFRS earnings measure adjustments

Figure 3 shows that the most common adjustments to arrive at a non-IFRS earnings measure were those that related to amortisation (7 companies), restructuring (6 companies) and fair value financial instrument adjustments (6 companies). Adjustments for impairments, non-recurring items and the effects of discontinued operations were also reasonably common.

These results are similar to those of the CFA Society of the United Kingdom (2015) who found that the most frequent material adjustments were restructuring expenses, asset impairments and amortisation of intangibles. The restructuring expenses are non-recurring and considered a once-off expense, and amortisation and impairment are calculated using subjective inputs such as the estimated useful life of an asset. By excluding these items management may be aiming to provide an earnings figure that is more representative of future operations and a more accurate measure of performance (Standard and Poor, 2014).

To gain a more in-depth understanding of the prevalence of non-IFRS earnings within the JSE, the sample was sub-categorised into sectors, in an attempt to identify potentially common sector adjustments.

Figure 4: Non-IFRS Adjustment Analysis by Sector within the JSE Top 40

Sector	Companies within Sector	Non-IFRS Earnings Term Used	Most Common Non-IFRS term
Basic Materials	6	4	Underlying (2/4)
Consumer Goods	5	2	-
Consumer Services	4	2	-
Financials	19	11	Normalised (5/11)
Health Care	2	2	Normalised Headline Earnings (2/2)
Industrials	1	0	-
Oil & Gas Producers	1	0	-
Telecommunications	2	0	-
Total	**40**	**21**	

Figure 4 shows that companies within the Basic Materials and Financials sectors presented the largest number of non-IFRS earnings measures; four and 11 measures respectively. Of the 11 measures presented by companies in the Financials sector, five were 'normalised earnings'. The Financials sector was further analysed as follows:

Figure 5: Adjustment Analysis of Financial Sector

Company	Sub Sector	Non-IFRS Earnings Term	Sector
Barclays Africa Grp Ltd	Banks	-	Financials
Capitec Bank Hldgs Ltd	Banks	-	Financials
Nedbank Group Ltd	Banks	-	Financials
Standard Bank Group Ltd	Banks	Pro forma continuing operations headline earnings	Financials
Firstrand Ltd	Banks	Normalised Earnings	Financials
Rmb Holdings Ltd	Banks	Normalised Earnings	Financials
Rand Merchant Ins Hldgs	Equity Investment Instruments	Normalised earnings	Financials
Reinet Investments S.C.A	Equity Investment Instruments	-	Financials
Brait Se	Financial Services	-	Financials
Investec Plc	Financial services	Adjusted attributable earnings	Financials
Psg Group Ltd	Financial Services	Recurring Headline Earnings	Financials
Discovery Ltd	Life Insurance	Normalised Headline Earnings	Financials
Sanlam Limited	Life Insurance	Normalised Headline Earnings	Financials
Old Mutual Plc	Life Insurance	Adjusted operating earnings	Financials
Capital&Counties Prop Pl	Real Estate	Underlying Earnings	Financials
Intu Properties Plc	Real Estate	Underlying earnings	Financials
New Europe Prop Inv Plc	Real Estate	-	Financials
Growthpoint Prop Ltd	Real Estate	-	Financials
Remgro Ltd	General Industrials	-	Financials

All the life insurance companies in the sample presented a non-IFRS earnings measure, as did two of the three financial services companies, half of the banks, and half of the real estate companies. Apart from the use of normalised earnings, normalised headline earnings and underlying earnings were also commonly-used terms to describe non-IFRS earnings. Given the sample size limitation, this finding does not provide conclusive evidence of a commonly used non-IFRS measure.

III) Comparison between non-IFRS earnings and IFRS earnings by company

Of the 21 companies that presented non-IFRS earnings, 19 companies were analysed and included in Figure 6 below. South 32 Limited and Capital & Counties Plc were excluded due to being outliers within the sample. South 32 Ltd presented non-IFRS earnings that was 2% in relation to its IFRS earnings whereas Capital & Counties presented non-IFRS earnings that were 728% in relation to its IFRS earnings.

The reason for the significant earnings difference within South 32 (2015) was due to an impairment loss recognised in IFRS earnings being reversed for the purpose of calculating the non-IFRS earnings measure.

Capital & Counties Plc excluded a gain on the revaluation and sale of investment property to "remove unrealised and other one-off items and therefore represent the recurring, underlying performance of the business", decreasing non-IFRS earnings significantly compared to IFRS earnings.

Within the remaining 19 companies, Figure 6 illustrates that 11 (58%) of the non-IFRS earnings presented were greater than each company's respective IFRS earnings.

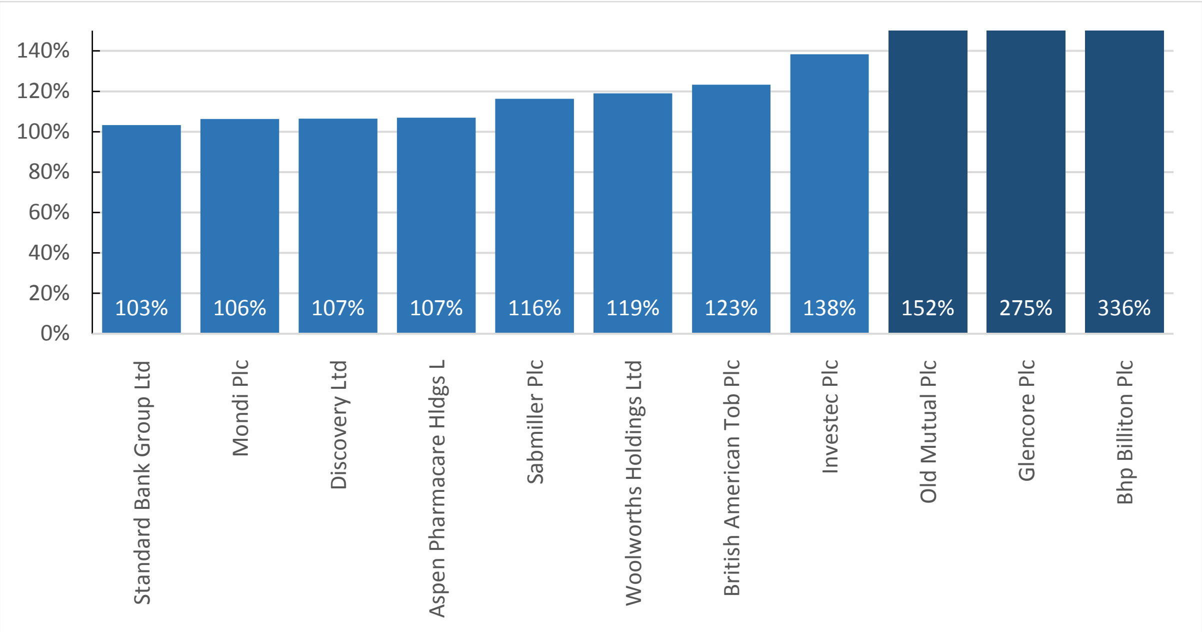


Figure 6: Company specific non-IFRS earnings as a % of IFRS earnings

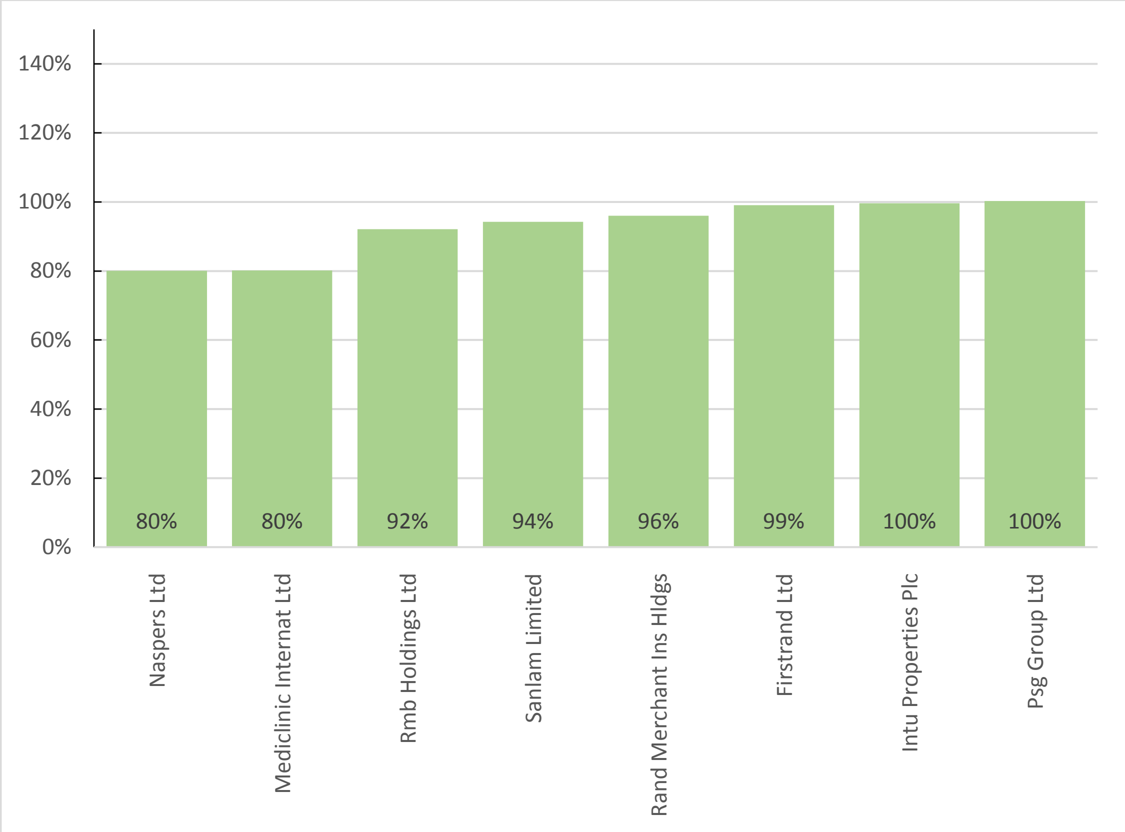


Figure 7: Company specific non-IFRS earnings as a % of IFRS earnings

Non-IFRS earnings were found to be on average 128% greater than that of IFRS earnings. Four companies' ratios above this average, these being Investec (138%), Glencore (275%), Old Mutual (152%) and BHP Billiton (336%). In contrast, as shown in figure 7, eight of the 19 companies presented a non-IFRS earnings value that was less than that of IFRS earnings, but not less than 80% of the value of IFRS earnings[38].

These findings show that when companies do present non-IFRS earnings greater than that of IFRS earnings, the difference between these earnings values is larger than the difference that arises when non-IFRS earnings are less than IFRS earnings. This finding is not necessarily unexpected as management may be more prone to identifying and adjusting for the exceptional items that negatively affected business performance, as opposed to those that helped performance (Standard & Poor, 2014).

Coulton et al (2016) found that 52.4% of the 500 ASX Australian listed companies analysed disclosed a higher value of non-GAAP earnings than GAAP earnings leading up to 2002. The study found that 55-61% of non-GAAP earnings were reported higher than GAAP earnings from years 2010 to 2014.

A fairly similar result was found by Standard and Poor on a sample of 82 companies on the FTSE 100, where 79% of these companies disclosed non-IFRS earnings that were greater than IFRS earnings for 2012/2013 fiscal year, an increase from 72% in the 2011/2012 fiscal year (Standard & Poor, 2014).

[38] Refer to Appendix 2 for a detailed breakdown of the results.

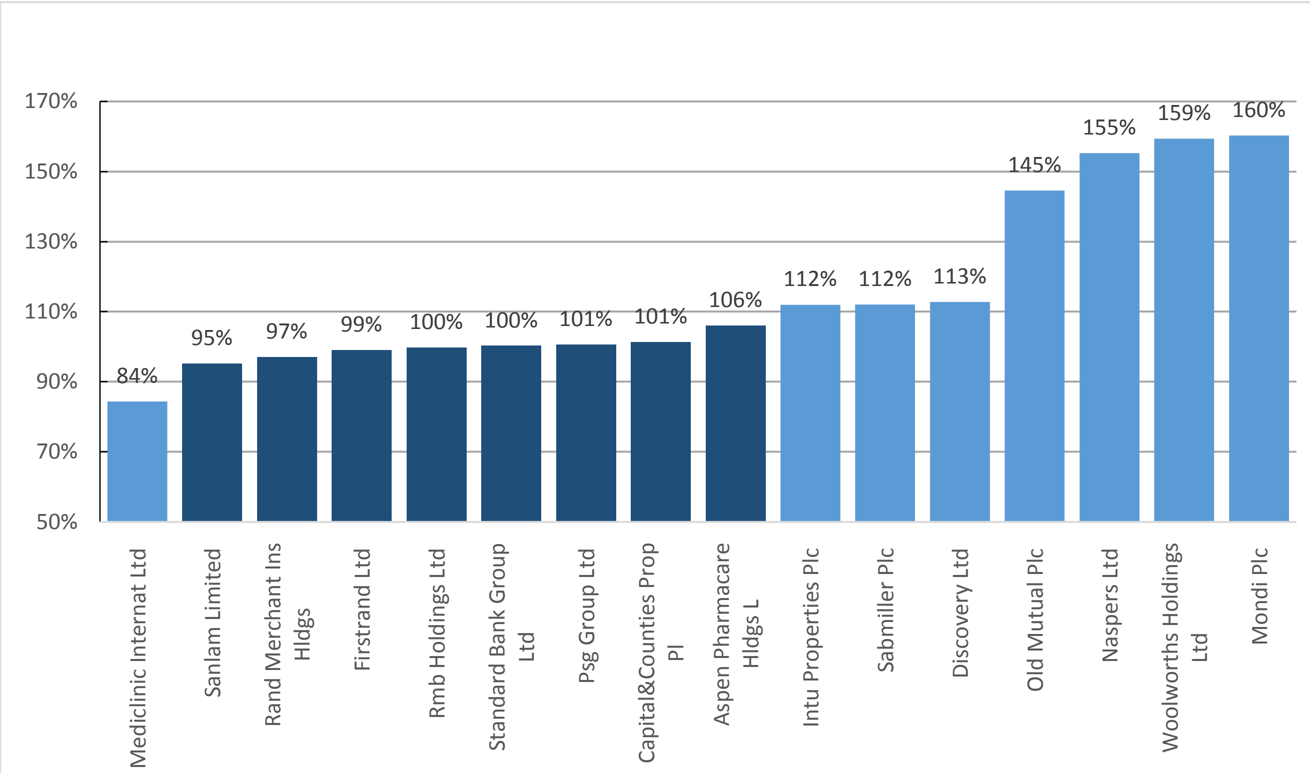
The results of this study are therefore similar to those of Coulton et al (2016), and slightly lower than those of Standard and Poor (2014). These results relate solely to the 2015 financial year. An extension of the study may look to include a range of financial years. This will allow for a better understanding of whether non-IFRS earnings being greater than that of IFRS earnings is a trend over financial years, or specific to the 2015 financial year used within this research report.

IV) Comparison between non-IFRS earnings and Headline Earnings by company

As previously mentioned, headline earnings is a mandatory disclosure item for JSE listed companies. A comparative analysis of the value of non-IFRS earnings and headline earnings is contained in Figure 8.

The companies used in the data set were the 16 companies that provided non-IFRS earnings in addition to that of headline earnings. The 5 companies that were excluded from the analysis were four dual listed companies that did not include a headline earnings figure in the integrated report, as well as Glencore (2015) that reported non-IFRS earnings that was 20 times greater in value than headline earnings, and was therefore regarded as an outlier. Figure 8 below plots the non-IFRS earnings as a percentage of headline earnings. Ten companies (63%) reported non-IFRS earnings measures that were higher than headline earnings. In contrast to this, four companies reported non-IFRS earnings measures that were less than headline earnings, and two companies reported non-IFRS earnings and headline earnings that were equal in value. This may suggest that similarity exists in the nature of the adjustments made in calculating headline earnings and non-IFRS earnings, which was briefly investigated and the results discussed below.

Figure 8: Company specific Non-IFRS earnings as a % of Headline Earnings



The items adjusted for in calculating headline earnings include impairment of assets, gains and losses on the disposal of discontinued operations, and gains and losses on the disposal of assets and certain fair value adjustments. Eight of the sixteen companies provided a reconciliation of the adjustments made in calculating non-IFRS earnings and those made in calculating headline earnings. The nature of these adjustments was compared, in order to investigate the extent of similarity. Figure 9 below illustrates that of the 47 adjustments made to calculate headline earnings, only 3 of the non-IFRS earnings adjustments were similar. Contrary to initial expectations therefore, the lack of similar adjustments implies that different considerations are given to the calculation of non-IFRS earnings; however, further research using a larger sample is recommended.

Company	Headline Earnings adjustments	Non-IFRS Earnings Adjustments	Similar Adjustments
Aspen	4	4	0
Capital&Counties Prop Pl	8	9	1
PSG Group Ltd	N/A	No Reconciliation provided	N/A
Standard Bank Group Ltd	7	1	1
RMB Holdings Ltd	12	6	0
First Rand	7	2	0
Rand Merchant Ins Holdings	6	7	0
Sanlam Limited	3	3	1
Total	**47**	**32**	**3**

Figure 9: Analysis of Headline earnings and non-IFRS earnings adjustments

SCOPE FOR FURTHER RESEARCH

The shortcomings of this report relate to the scope of the research conducted. The scope of the research included only 40 companies within the JSE. In addition to this, only the 2015 integrated reports were analysed, which may not be reflective of the status of non-IFRS earnings reporting amongst all South African companies.

A further study should incorporate a larger sample size that includes an analysis of the use of non-IFRS earnings measures over a longer period and in other reports (such as the financial statements). Extending the research to include a range of financial years will also provide insight into the rate at which companies are adopting non-IFRS earnings measures as a performance indicator.

This paper briefly comments on the similarities between non-IFRS earnings and that of headline earnings. A further study could be conducted that investigates in greater detail the adjustments made in calculating headline earnings in comparison to that of the adjustments made to calculate non-IFRS earnings.

There is no evidence to suggest that value relevance of reported non-IFRS earnings has been investigated within the South African context. This paper has reviewed the extent to which non-IFRS measures are being used by companies in South Africa, but does not analyse the ability of these measures to predict future earnings or cash flow predictions.

The IASB has identified the need for a solution that enhances the comparability of non-IFRS measures. An area for future research would be a study that investigates whether a standardised set of non-IFRS earnings measures per sector assists in achieving greater comparability.

CONCLUSION

The purpose of this paper was to provide initial exploratory evidence into the extent to which non-IFRS earnings measures are used by companies within South Africa. A review of previous literature on the rationale for management choosing to use non-IFRS earnings measures was provided and contrasted with the major concerns and criticisms of the measures. Managers have stated that non-IFRS earnings measures are more representative of the company-specific operations and future operations as opposed to the IFRS regulated earnings. The IASB have acknowledged that there has been great leniency surrounding the regulation of non-IFRS earnings measures and that the greater value relevance of non-IFRS earnings to IFRS earnings is becoming a concern, as is the lack of comparability of such measures.

The findings show that the majority (53%) of companies within the JSE top 40 companies are presenting non-IFRS earnings measures in their integrated reports. The analysis of the literature reviewed provided evidence that this phenomenon was not isolated to South Africa.

Furthermore, this study found that there is currently a large dispersion of non-IFRS earnings descriptions being used by companies, both within each sector and for the sample as a whole, although the more popular descriptions were found to be ‘adjusted earnings’, ‘normalised headline earnings’ and ‘underlying earnings’. The adjustments made when calculating non-IFRS earnings also differed across the sample, although amortisation, impairment and fair value adjustments were amongst the more common. Most companies included a clear, understandable reconciliation of non-IFRS to IFRS earnings measures, but the large differences in the types of adjustments made provides preliminary non-statistical evidence that non-IFRS earnings measures may lack comparability across companies.

This paper did not attempt to determine whether there is a correlation between non-IFRS earnings and future performance of the company. Instead, an examination into the relationship between IFRS earnings and non-IFRS earnings was provided. It was found that the majority of the non-IFRS earnings measures were greater in value than the IFRS earnings values. This provides preliminary evidence that managers may be choosing predominantly income-increasing adjustments to report an artificially better financial performance. Finally, the majority of non-IFRS earnings measures were also marginally greater than headline earnings, and the findings suggest that different adjustments are made in calculating these measures.

The lack of research surrounding the topic of non-IFRS earnings provides much scope for future research. The findings of this paper can therefore be used as a foundation for further research on non-IFRS earnings measures, both within South Africa and internationally.

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FAC007 An initial study of disclosures related to Broad-based Black Economic Empowerment in the integrated reports of South African mining companies

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ABSTRACT:

This research provides an initial account of Broad-based Black Economic Empowerment (B-BBEE) disclosures in the integrated reports of South African mining companies listed on the Johannesburg Stock Exchange. A disclosure checklist, based on relevant literature, was developed interpretively. This was used to analyse the extent of the B-BBEE disclosures in a sample of Johannesburg listed mining companies' 2014/2015 integrated reports. The results reveal that listed mining companies include a wide coverage of B-BBEE disclosures in their integrated reports but that there is a lack of integration between disclosure themes and there is considerable repetition.

Key words: B-BBEE, BEE, integrated reporting, mining companies

INTRODUCTION

Several studies have examined integrated reporting with a specific focus on the extent to which companies are integrating their financial and non-financial information (Rensburg and Botha, 2014; Atkins and Maroun, 2015; Raemaekers et al., 2015). Few have, however, considered the coverage of Broad-based Black Economic Empowerment (B-BBEE) disclosures in the integrated report. As a result, the purpose of this research is to examine the characteristics and extent of disclosure on B-BBEE information being included in the integrated/annual reports of Johannesburg Stock Exchange (JSE) listed mining companies in 2014/2015[39].

B-BBEE is important to the integrated report because of its link to sound corporate governance (South African Government, 2004b). Improving the quality and transparency of economic activity forms a significant part of economic reform and transformation (South African Government, 2004b). Accordingly, B-BBEE must be associated with the highest standard of corporate governance (South African Government, 2004b) and the integrated report is a platform where this high level of corporate governance can be presented (Institute of Directors (IOD), 2016) . This is especially true for the South African mining industry.

Sound corporate governance disclosures are key for signalling how organisations are aligning their own business models with changes to legislation (Carels et al., 2013). Moreover, the industry was specifically selected as it forms an important part of South Africa's economic environment by way of its significant contribution to the country's Gross Domestic Product (PwC, 2012; PwC, 2014; PwC, 2015). The sector is responsible for a considerable portion of the corporate tax base of the country and has a material impact on employment and export revenues (PwC, 2014). In addition, this sector is very labour intensive and, therefore, has a high social impact (Carels et al., 2013). The International Integrated Reporting Council (IIRC) released an international framework for integrated reporting which emphasised the importance of enhanced stewardship with respect to social capital in the integrated report (Atkins and Maroun, 2015). Consequently, the high social impact of the mining sector should be evident in the integrated report.

The remainder of this paper is structured as follows: The literature review provides a brief overview of laws and regulations dealing with B-BEEE. It identifies specific disclosure themes included in the disclosure checklist used to analyse a sample of integrated reports. Next the method is described. Finally, the paper presents the results and conclusion, with areas for future research.

LITERATURE REVIEW

A brief history of Broad-based Black Economic Empowerment

During Apartheid, the law defined and managed people on the basis of race (Hammond et al., 2009). In 1994, South Africa held its first democratic elections (Adler and Webster, 1995; Krüger, 2011). Obvious wealth inequalities existed between members of different races with the vast majority of the population being unable to share in the wealth of the country due to

[39] The most recently published integrated reports at the time of data collection.

the Apartheid regime's laws[40] (Hammond et al., 2012). Ownership of assets and participation in the economy was exclusive to the white minority whilst the black majority were left unable to own, participate in the economy and uplift their economic circumstance (Mbabane, 2007).

The transformation of the country into a democratic society was a challenge for the Government but, arguably, the biggest hurdle was addressing the problem of inequality and poverty that resulted from the Apartheid Era (Krüger, 2011). The Reconstruction and Development Programme (RDP) was set up to tackle this issue and, ultimately, to aid Government in building a united democratic future. It was within the RDP where ideas of Black Economic Empowerment (BEE) began (Mbabane, 2007). Subsequently, the BEE Commission was formed to collaborate with the Department of Trade and Industry in developing a framework of ''empowerment'' within the economy (Mbabane, 2007). The initial status of the commission was non-statutory; their role was to make recommendations to companies regarding ''transformation'' (Mbabane, 2007). The Government responded to pressure (especially organised black business formations) to develop and promulgate legislature related to BEE (McEwan and Bek, 2006). It took approximately two more years for the official formalised framework to be developed and shortly thereafter the prior B-BBEE Act was enacted by the Parliament of the Republic of South Africa (McEwan and Bek, 2006; Krüger, 2011).

Amendments to the Broad-based Black Economic Empowerment Act

It became clear that only a few individuals were becoming enriched from the implementation of the prior B-BBEE Act (Kim, 2010; Krüger, 2011; DTI, 2012). The policies contained therein were narrow and the implementation of the prior B-BBEE Act offered empowerment to only a small group of previously disadvantaged South Africans[41]. Critics of the prior B-BBEE Act criticized it for being narrow and ambiguous. It became imperative to refine and transform the economic policies and this formed the basis for the introduction of the revised Act (Kim, 2010). The revised B-BBEE Act placed more emphasis on *broad-based* empowerment, for previously disadvantaged individuals[42] earning various levels of income, not just those in higher income brackets (Krüger, 2011).

The Government made several amendments to the B-BBEE Act that became effective in 2014. These amendments highlight Government's intention to focus more closely on transformation of a broader group of previously disadvantaged individuals/groups. Under the previous B-BBEE Act, the manner in which each company applied B-BBEE depended on

[40] An example of an Apartheid law is the Group Areas Act No. 36 of 1966, which assigned racial groups to different residential and business sections in urban areas MAHARAJ, B. 1997. Apartheid, urban segregation, and the local state: Durban and the Group Areas Act in South Africa. *Urban Geography,* 18**,** 135-154.

[41] This group of South Africans are those with socio-political connections and knowledge or resources KIM, S. J. 2010. *Truth is somewhere in between: an ethnographic account of Broad Based Black Economic Empowerment (BBBEE) in South Africa-a work in progress.*

[42] Previously disadvantaged individuals include black people, women and those who came from rural or under-developed communities who were unable to participate in the economy of the country during Apartheid KRÜGER, L. 2011. The impact of black economic empowerment (BEE) on South African businesses: Focusing on ten dimensions of business performance. *Southern African Business Review,* 15**,** 207-233.

their individual business practises and companies could engage in “fronting practices”[43] without any legal consequences (Werksmans, 2014). The current framework introduced penalties contraventions. This, the inclusion of penalties, is an important departure from the previous framework and it indicates the direction of the economic transformation of the country (Werksmans, 2014).

Notable changes to the Act include the fact that applying policies “as far as reasonably possible” will no longer be acceptable. Firmer and stricter policies have taken their place. Under the B-BBEE Act, a Commission has been established to advocate transactions relating to transformation and eradicate fronting practices (South African Government, 2014). The Commission has the power to subpoena wrongdoers to appear in court (South African Government, 2014; Werksmans, 2014). Criminal offenses have been introduced to deal with providers of false information relating to transformation activities or engaging in a fronting practice (penalties include fines of up to 10% of a firm’s annual turnover and imprisonment of up to 10 years) (South African Government, 2014; Werksmans, 2014). A statutory right now exists for Government to revoke any contracts which were awarded due to false or misleading information regarding a company’s BEE status (South African Government, 2014). South African listed entities will now be obliged to report to the Commission on their compliance with B-BBEE on a regular basis (Werksmans, 2014).

Furthermore, the codes and weightings of the B-BBEE Act have been altered (Werksmans, 2014). Previously, if a company achieved sixty-five points they would be level four compliant[44]. Under the new system, that company will only be level seven compliant (with level one denoting the most compliant). The consequences of these changes could be severe for industries which require a prerequisite level rating in order to obtain licences for business operations, such as the mining sector (Liebenberg, 2013).

This section focused on the relevance of B-BBEE in a South African context. Outcomes of non-compliance were explored to give an indication of the operational effects of not adhering to B-BBEE law. Ultimately, compliance with B-BBEE, from an operational standpoint, affects the social standing of employees. For South African companies, the largest group of items reported in the integrated report appear under the ‘social’ category (Solomon and Maroun, 2012). This is largely expected given the historic significance of social issues for South African companies which includes matters relating B-BBEE (Solomon and Maroun, 2012).

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[43] A transaction, arrangement or other act or conduct that directly or indirectly undermines or frustrates the achievement of the objectives of the B-BBEE Act or the implementation of any of the provisions of the B-BBEE Act including but not limited to practices in connection with a B-BBEE initiative for example where black persons are appointed to an enterprise but are discouraged or inhibited from substantially participating in the core activities of that enterprise SOUTH AFRICAN GOVERNMENT 2014. Broad-Based Black Economic Empowerment Amendment Act, 2013. *In:* INDUSTRY, D. O. T. A. (ed.).

[44] The total possible score is 100. An entity’s score over 100 will then determine what Level it is rated based on a scale. Level one compliant is the best rating and Level eight is the lowest. An entity can also achieve a non-compliant rating TSHULETSA. 2017. *BEE-Scorecards* [Online]. Available: http://tshuletsa.co.za/bee-scorecards/ [Accessed 9 May 2017].

Reporting frameworks: Construction of the research instrument

Neither King-III nor King-IV[45] prescribe the manner in which integrated reports should be compiled by providing a detailed list of disclosure requirements (King-III, 2009; Carels et al., 2013; IOD, 2016). For this reason, several reporting initiatives, including King-III[46], inform the content of the integrated reports of South African companies. Some of these frameworks include the Global Reporting Initiative's G4 Reporting Guidelines (GRI G4), the United Nations Global Compact Principles, the Carbon Disclosure Project and the Prince of Wales Accounting for Sustainability Project (KPMG, 2012). The JSE has also developed the Social Responsibility Index as a measure of environmental, social and governance reporting practises in a distinctly South African context for listed companies (Carels et al., 2013).

Of the voluntary frameworks outlined above, the most commonly applied by South African mining companies is the GRI G4, complimented by guidance provided by King-III (KPMG, 2012; Carels et al., 2013). The mining sector also draws from the provisions contained in the Charter[47] as a 'framework' for integrated reporting (Carels et al., 2013). In developing a disclosure checklist, this research only considered the GRI's G4 framework to a limited extent as it is a general, voluntary reporting framework. The main framework that was used is King-III because of the requirement for listed companies to utilise King-III in preparing their integrated reports[48]. The Charter will also be explored as it includes various targets for the transformation of the sector which should be achieved within a certain timeline (South African Government, 2010; Carels et al., 2013).

The Charter as a reporting framework

Industry regulation plays a key role in defining the nature and extent of corporate reporting (Atkins and Maroun, 2015). The South African mining sector is influenced by the Charter, which does not provide prescriptive social disclosure requirements but creates a framework for the transformation of the mining sector (Carels et al., 2013).

The objectives of the Charter summarise an intent to promote B-BBEE in the mining sector. The Charter seeks to promote equitable access to the nations mineral resources, expand opportunities for historically disadvantaged South Africans[49] (HDSAs), expand the existing

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[45] King-III and King-IV are voluntary corporate reporting frameworks that were developed in South Africa and deal with creating good corporate governance as well as integrating different aspects of a business to ensure management have a long-term sustainable business strategy KING-III 2009. King Code of Governance, CARELS, C., MAROUN, W. & PADIA, N. 2013. Integrated reporting in the South African mining sector. *Corporate Ownership and Control,* 11**,** 957-970, IOD 2016. *King IV Report on Corporate Governance in South Africa*, Lexis Nexus South Africa, Johannesburg, South Africa.

[46] This research does not deal in detail with King-IV as this was not being applied by companies at the time of data collection.

[47] The Charter refers to the Mining Charter developed by the Department of Mineral Resources. This is a guide on how to achieve transformation in the mining industry and provides nine aspects to consider HARMONY. 2017. *Mining Charter compliance* [Online]. Harmony. Available: https://www.harmony.co.za/sustainability/mining-charter-compliance [Accessed 9 May 2017].

[48]King-III adopts an "apply or explain" approach for all JSE-listed companies KING-III 2009. King Code of Governance.

[49] HDSA refers to South African citizens, category of persons or community, disadvantaged by unfair discrimination before the Constitution of the Republic of South Africa, 1993 (Act No. 200 of 1993) came into operation SOUTH AFRICAN GOVERNMENT 2010. Amendment of the Broad-Based Socio-Economic Empowermnet Charter for the South African Mining and Minerals Industry. *In:* RESOURCES, D. O. M. (ed.).

skills base of HDSAs, promote the economic welfare of mining communities and promote beneficiation of mineral commodities (South African Government, 2010).

Other requirements of the Charter relate to sustainability in the mining sector and do not definitively relate to the effective participation of HDSAs in the economy. Only those provisions that relate specifically to B-BBEE (through the economic participation of HDSAs) were focused on for the purpose of this research. Table 1 presents the main requirements of the Charter and whether or not they were included in the analysis of the research.

Table 5: Requirements of the Charter included in study

Element of Charter	Requirements	Disclosure included in study
Ownership	• Achieve a minimum target of twenty-six percent ownership of HDSA by 2014 (South African Government, 2010)	Yes
Procurement and enterprise development	• Procure a minimum of forty percent of capital goods annually from BEE entities50 by 2014. • Procure seventy percent of services and fifty percent of consumer goods from BEE entities by 2014 (South African Government, 2010)	Yes Yes
Beneficiation[51]	• Mining companies may offset the value of the level of beneficiation achieved by the company against a portion of its HDSA ownership requirements, not exceeding eleven percent (South African Government, 2010).	Yes
Employment equity	Every mining company must achieve a minimum of forty percent demographic representation at: • Board level • Senior management level • Core and critical skills • Middle management level • Junior management • Each by 2014 (South African Government, 2010).	Yes
Human resource development	• Mining industry must invest a percentage of annual payroll in essential skills development activities, reflective of the demographics. • Invest a percentage of annual payroll on mining research (South African Government, 2010).	Yes No
Mine community development	• Engage with communities prior to implementation of mining operations. • Mining companies must conduct an assessment to identify developmental needs of the community (South African Government, 2010).	No No
Housing and living	• Mining companies must implement measures to	

[50] A BEE entity means an entity where a minimum of twenty-five percent plus one vote of share capital is owned directly by HDSA ibid.
[51] Beneficiation refers to the transformation of a mineral into a higher value product, which can either be sold locally or exported ibid.

Element of Charter	Requirements	Disclosure included in study
conditions	improve standards of housing and living conditions for mine employees (South African Government, 2010).	No
Sustainable development and growth of the mining industry	• Mining companies must improve the industry's environmental management. • Mining companies must improve the industry's health and safety performance (South African Government, 2010).	No No
Reporting (monitoring and evaluation)	• Every mining company must report its level of compliance with the Charter annually (South African Government, 2010).	Yes

The exclusion of the provisions per Table 1 ensures that the research will give a true account of B-BBEE disclosures in the mining sector and will not be skewed by the company's general sustainability reporting disclosures. For example, under the *Human resource development* element, the requirement for mining companies to invest a percentage of annual payroll on mining research will increase the operating effectiveness of the mines in general but will not explicitly affect the economic participation of HDSAs (see Table 1). This is a stark contrast with the previous requirement under the same element that required the industry to invest a percentage of annual payroll in essential skills development activities, reflective of the demographics. This provision makes specific reference to demographics, meaning that when the industry invests in skills they will have to do this in line with the racial demographics of the country, which links to B-BBEE. The link to B-BBEE is important as the Charter does not deal purely with racial transformation of the sector as is seen by the following extract:

> "Additionally, the review of the Charter introduces an element of sustainable growth of the mining industry, which seeks to ensure sustainable transformation and growth of the mining industry" (South African Government, 2010, p. i.preamble).

The concept above follows through to the exclusion of the *Mine community development* element. Engaging with communities and assessing their needs is more closely linked with sustainability than with demographics. The community is broad and does not only refer to HDSAs.

It follows that the *Housing and living conditions* element pertains to the subsidisation of mining employees. This relates to the improvement of all mine employees who qualify as no reference is made to racial demographics.

Sustainable development and growth of the mining industry is an element which relates to environmental management and safety features within the industry. Management of the mining environment and the safety of mining operations are pervasive issues which should be objectives of the industry regardless of any legislation introduced. Similarly to the above scoped out items, it cannot be directly too attributed to B-BBEE.

Construction of the disclosure checklist

In open coding (see method section), phenomena is compared to obtain conceptual labels which are grouped together to form categories (Corbin and Strauss, 1990). With reference to the Charter elements, the following axial codes were identified (in bold). The open codes are headings which were located in the integrated reports of mining companies. The axial codes (elements of the Charter) were recognised as a method to group these open codes (included as bullet points).

Ownership
- ☐ Dividends paid to BEE shareholders
- ☐ BEE partnerships
- ☐ Mining charter compliance targets

Procurement
- ☐ Broad-based stakeholder value
- ☐ Transforming the supply chain
- ☐ Supply chain management
- ☐ BEE procurement
- ☐ Employment equity and transformation
- ☐ Percentage spend on BEE entities

Beneficiation
- ☐ Progress towards beneficiation

Employment equity
- ☐ Executive Committee composition by HDSA
- ☐ HDSA in management
- ☐ Board members by HDSA
- ☐ Employment of nationals

Human resource development
- ☐ Stakeholder guidelines
- ☐ Leadership and people

Reporting
- ☐ Regulatory authorities
- ☐ Independent Mining Charter scorecard review
- ☐ Regulatory reform

For this research, open codes have been grouped according to the sections in the integrated report which most commonly include these types of disclosures (axial codes). This is discussed in more detail in the methodology section.

King-III as a reporting framework

King-III encourages the reporting of clearly defined integrated information about an organisation's strategies, risks and opportunities and how this relates to the social, environmental and economic challenges facing firms (King-III, 2009; Solomon and Maroun, 2012). The introduction of the requirement[52] for companies listed on the JSE to produce

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[52]The JSE's listing requirements do not explicitly mandate the preparation of an integrated report as a legal requirement, but practically, this is the outcome ATKINS, J. & MAROUN, W. 2015. Integrated reporting in South Africa in 2012: Perspectives from South African institutional investors. *Meditari Accountancy Research,* 23**,** 197-221, RAEMAEKERS, K., MAROUN, W. & PADIA, N. 2015. Risk disclosures by South African listed companies post-King III. *South African Journal of Accounting Research***,** 1-20.

integrated reports has been regarded as significantly adding to the credibility of the South African market (Raemaekers et al., 2015). Even so, companies have struggled to display the link between sustainability issues and the organisation's core strategy (Meyer, 2011; Solomon and Maroun, 2012; Atkins and Maroun, 2015; Secombe, 2015). This gap in the integrated report is highlighted in King-III with specific reference to B-BBEE disclosures.

> ''Currently, the connection between sustainability and BEE is not fully understood. It is, therefore, underdeveloped which leads to a dissociation of the two" (King-III, 2009, p. 24).

This statement acknowledges the possibility that B-BBEE disclosure practises are an area in the integrated report which may require more meaningful integration. This is a limitation which highlights the need for additional research on B-BBEE disclosures in the integrated report. For this reason the research looks at these disclosures informed by principles on integrated reporting contained in King-III.

There is always a link between good governance and compliance with law (South African Government, 2004a; King-III, 2009). It is stated in King-III that social transformation and redress from Apartheid are important and should be integrated within the broader transition to sustainability (King-III, 2009). It is expected that listed mining companies preparing integrated reports will deal with social transformation which is a concept that is also highlighted by the B-BBEE Act. To this end, each of the nine chapters of King-III provides essential principles which can be applied to inform B-BBEE reporting by South African mining companies. The application of these principles for this purpose, and the determination of disclosure themes in the data collection instrument (see methodology section), will now be discussed in more detail.

Construction of the disclosure checklist

Effective leadership

Chapter 1 of King-III advocates that the board should provide effective leadership based on an ethical foundation (King-III, 2009). Effective leadership is displayed through responsible leaders building sustainable businesses which give regard to the company's economic, social and environmental impact on the community in which it operates (King-III, 2009). Linking this principle to B-BBEE, a company should consider and disclose whether there are any social effects stemming from B-BBEE that affect the community. A crucial element of integrated reporting is for the board of directors to identify the sustainability factors pertinent to the business of the company and then to work these into the long-term strategy of the company (King, 2010). Given the exploratory nature of the study and the fact that no framework exists which sets out B-BBEE disclosure requirements, this requirement will be included in the disclosure checklist. The construction of the disclosure checklist and more detail on open coding is discussed in the methodology section. The open codes (headings located in the integrated reports of mining companies) identified under Effective leadership are:

- Integration of B-BBEE with the community
- Details of employee demographics

Responsible corporate citizen

King-III requires that the board should ensure that the company is, and is seen to be, a responsible corporate citizen (King-III, 2009). A responsible corporate citizen ensures that strategies and policies are planned and coordinated across all sections of the company to prevent fragmentation (King-III, 2009). A company may seek to respond to the requirements of the Charter, but fail to coordinate these efforts effectively into a broader sustainability framework (King-III, 2009). Companies should use integrated reports to clarify the link between sustainability and B-BBEE. Open codes include:

- Integration of B-BBEE with the company's social environment
- Social transformation

Governance of risk

At the core of integrating reporting is the ability of the report to link governance and strategy with risks and opportunities and ultimately their impact on the long-term sustainable development of the company (Ramsden, 2010; Meyer, 2011). The board should be responsible for the governance of risk and the board should appreciate that strategy, risk, performance and sustainability are inseparable (King-III, 2009). This is achieved through the identification of key performance and risk areas as well as performance and risk measures (King-III, 2009). A full assessment of risks requires a breakdown of the source and nature of significant risks, an evaluation of the likelihood of each risk materialising and the development of mitigating strategies (Raemaekers et al., 2015). Examples of open codes are:

- Identification of risks
- Mitigation of risks
- BBBEE targets used as a key performance indicator measure
- Actions taken by the board towards B-BBEE
- Responses to B-BBEE risk

Composition of the board

The board should comprise a balance of power with a majority of non-executive, independent directors (King-III, 2009). Every board should also consider whether its diversity and demographics make it effective (King-III, 2009). Furthermore, the Charter set out requirement that by 2014 forty percent of board representation should include HDSAs (see Table 1) (South African Government, 2010). Examples include:

- Diversity of board
- Composition of executive committee

Governance committees (other than the board)

The board should delegate certain functions to well-structured committees without abdicating its own responsibilities (King-III, 2009). King-III assigns the board with ultimate responsibility over companies but also mandates the establishment other committees for listed companies (for example a social and ethics committee). The committee's will be handed a unique set of responsibilities and B-BBEE may be one of them. The following open codes apply:

- Legislative duties of the committee
- Transformation report by the social and ethics committee.

Compliance with laws (binding and non-binding), codes and standards

The board should ensure that the company complies with applicable laws and considers adherence to non-binding rules, codes and standards (King-III, 2009). The B-BBEE Act and the Charter are both laws, the compliance of which needs to be monitored and reported. As discussed in earlier, the Charter requires various targets for mining companies to adhere to. Provisions contained in the Charter increase the responsibility of the mining sector with reference to B-BBEE practices. For example, the requirement for mines to achieve a minimum target of twenty-six percent ownership in mines by HDSAs by 2014 (South African Government, 2010).

Another law which will influence B-BBEE disclosures in the integrated report is Employment Equity. The act governing Employment Equity is the Employment Equity Act No.55, 1998 (Employment Equity Act) (South African Government, 1998). This act intends to achieve a diverse workforce which broadly represents the demographics of South Africa and eliminate unfair discrimination in employment practises (South African Government, 1998). The Charter includes specific quotas that outline the level of HDSAs who should represent each level of management (see Table 1) which is inspired by the Employment Equity Act. For this reason, references to the Employment Equity Act are used interchangeably with Employment Equity as per the Charter in this research. Examples of open codes under Compliance with laws are:

- Non-compliance with the B-BBEE Act
- Compliance with the B-BBEE Act

Sustainability assurance

Sustainability reporting and disclosure should be independently assured (King-III, 2009). Assurance does not imply verification and refers broadly to the integrity of the non-financial information in the integrated report (King-III, 2009).

- Independent assurance report

METHOD

This research is an exploratory study which used a content analysis to explore the B-BEEE disclosures of a sample of JSE listed South African mining companies. This is appropriate given the fact that integrated reports are subjective[53](Carels et al., 2013; Raemaekers et al., 2015). A mismatch would occur if an objective, scientific method was designed for the purposes of capturing the idiosyncrasies contained in the integrated report (Brennan and Solomon, 2008; Creswell and Plano Clark, 2011; Merkl-Davies et al., 2011).

Sample

As explained in the introduction, this study focuses on B-BBEE disclosures in mining companies listed on the JSE. There were fifty-six mining companies listed on the JSE at the time of collecting the data. Eighteen of these were in the exploration or non-operational phase and were excluded from the analysis. Seven companies did not have their primary mining operations in South Africa and were excluded. An additional five companies did not prepare integrated reports for the period under review and were excluded. This resulted in a final sample of thirty-one companies (see Appendix B).

[53] The integrated report is a socially constructed document where preparers engage with a multitude of stakeholders and prepare the integrated report using a combination of frameworks. In measuring such data, the use of a positivist method would cause a mismatch.

Data collection
As no single disclosure framework exists which deals specifically with B-BBEE, the prior literature was used to construct a disclosure checklist (Creswell and Plano Clark, 2011; Leedy and Ormrod, 2013). The primary researcher examined the provisions of King-III and the mining Charter in detail to identify B-BBEE-related disclosures. These provided a list of possible disclosures.

An iterative process of reviewing the literature, the disclosure checklist and the integrated reports of five of the sample companies was performed to ensure the checklist was complete and accurate. The support researchers reviewed the final disclosure checklist.

The following are examples of the headings (open codes) used to analyse the integrated reports of the sample of mining companies:

- Integration of B-BBEE with the community
- Integration of B-BBEE with the company's social environment
- Social transformation
- Identification of B-BBEE related risks
- Mitigation of B-BBEE related risks
- B-BBEE targets used as a performance indicator measure
- Diversity of board
- Composition of executive committee
- Duties of committees
- Compliance with B-BBEE related laws and charters
- Independence assurance report

Each report was analysed carefully to gain a sense of its content and structure, and to identify B-BEEE-related disclosures. Where a disclosure was located in an integrated report, a value of '1' was assigned. If the disclosure theme was not dealt with, a nil value was applied. The researcher was careful to ensure that each disclosure theme was considered. For example, if a director considered the probability of meeting ownership targets required by the Charter in the CEO's report, that was translated into two disclosure counts (one for *effective leadership* and the other for o*wnership*). If an entire section discussed only procurement, this was considered as one count (for p*rocurement)*. Graphs and tables displaying B-BBEE disclosures were also considered when completing the checklist unless they represented information that was subsequently explained in a narrative linked to the graph. In this case, both the paragraph and the graph/table were grouped into one disclosure count. Finally, duplicated disclosures were omitted.

To limit subjectivity in the data analysis process, the researcher did not assign scores based on the perceived quality of the disclosures. This resulted in a frequency table that showed the number of times an open code was addressed in each respective companies' integrated reports. Axial coding was used to group the disclosures. Each principle in King-III was reviewed and linked to the B-BBEE disclosures. This was an iterative process which involved the primary researcher examining specific disclosures, the respective integrated reports and the principles in King-III to ensure consistent grouping of open codes. The final list of principles used to provide axial codes is provided in Appendix A.

The B-BBEE disclosures were also analysed by location in the integrated reports. The locations used in this study are adapted from Carels et al (2013) (see Table 2).

Table 6: Locations used in the disclosure checklist

L1	Director's report
L2	Chairman's statement
L3	Chief Executive Officer's review
L4	Risk management
L5	Strategic statement, profile and risk summary
L6	Corporate governance
L7	Social and ethics committee report
L8	Corporate responsibility summary
L9	Financial review
L10	Human capital review/safety and health
L11	Financial statements and notes
L12	Sustainability report (or equivalent)
L13	Regulatory compliance
L14	Group overview (and other related)
L15	Key performance indicators
L16	Operational review
L17	Assurance report

(Carels et al., 2013)

The numerical score obtained from the checklist allowed for conclusions to be drawn regarding certain disclosure practices (Merkl-Davies et al., 2011). This analysis is a cost effective and easily replicable technique for compressing subjective text into concise and easy to understand categories through the use of explicit rules. As categories were derived from the existing research the process is considered deductive (Leedy and Ormrod, 2013).

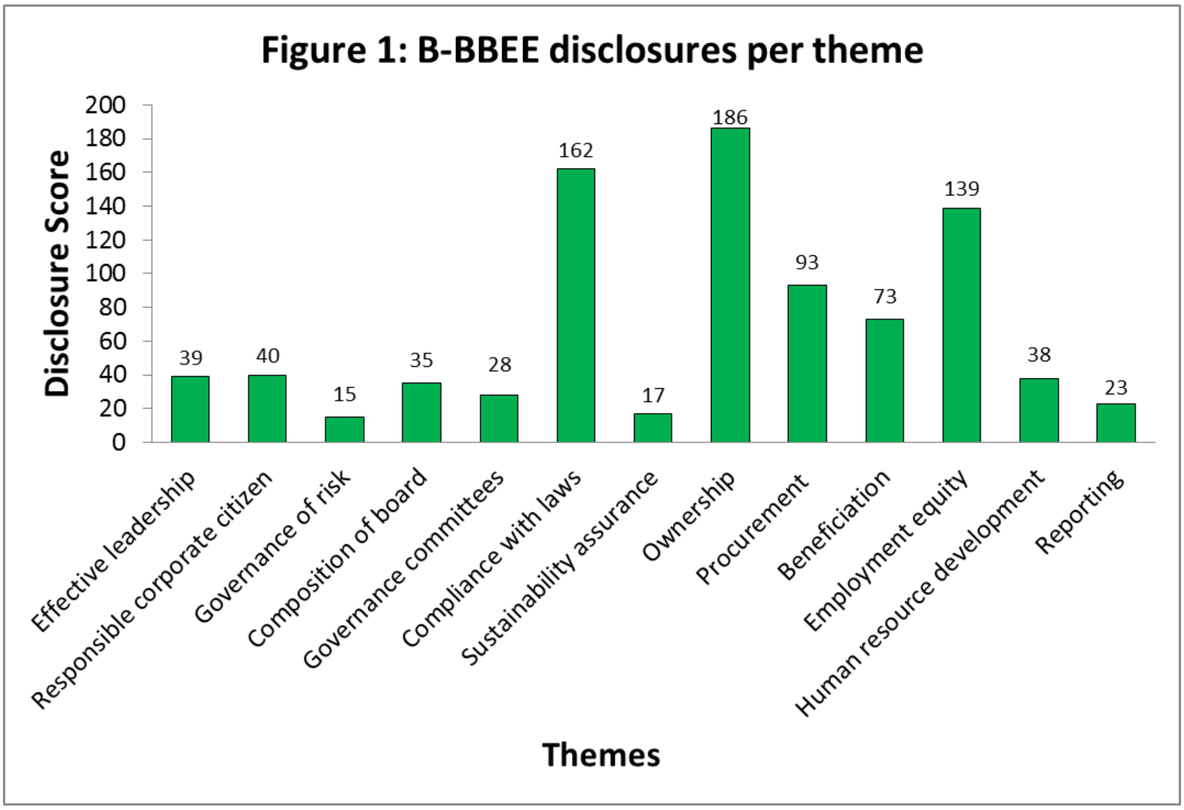
Data analysis

Data analysis was based on the total scores per open and axial code. As a result, the data has been categorised as ordinal, consistent with the approach followed by Raemaekers et al. (2015). Together with the fact that only a single period is reviewed, inferential statistical analysis is not appropriate. Instead, descriptive statistics are complemented by an interpretive text analysis of the content contained in the integrated report to draw attention to any emerging themes or trends regarding current B-BBEE disclosure in the integrated reports (Carels et al., 2013; Raemaekers et al., 2015).

RESULTS

Theme analysis

Figure 1 shows total disclosures by theme. The top three B-BBEE themes disclosed were ownership, compliance with laws and employment equity. The B-BBEE themes addressed the least were governance of risk, sustainability assurance and reporting.



High frequency themes

From the number of times *ownership* was mentioned in the integrated reports it would seem that listed mining companies are concerned with this Charter requirement. The following analysis is in line with expectations as the *Ownership* principle has been outlined as the ‘’essence of the Charter’’ (Secombe, 2015). The requirement to have twenty-six percent HDSA ownership has been met with the most resistance from the mining sector and still harbours controversy today as mining companies seek to gain clarity on the interpretation of the requirement (Quintal, 2015). Formal reporting on Charter requirements was due in 2015. By June 2015, more than 300 notices had been sent to companies who had not complied with stipulations contained in the Charter (Quintal, 2015). Ownership of the mines was a main area of contention, with many empowerment deals falling apart as BEE partners[54] sold their mining shares (obtained at favourable rates) for a profit (Quintal, 2015). The “once empowered, always empowered”[55] concept led the mining sector to seek clarity from the courts on whether past deals counted towards the twenty-six percent requirement even after the ownership shares related to those transactions was sold (Secombe, 2015).

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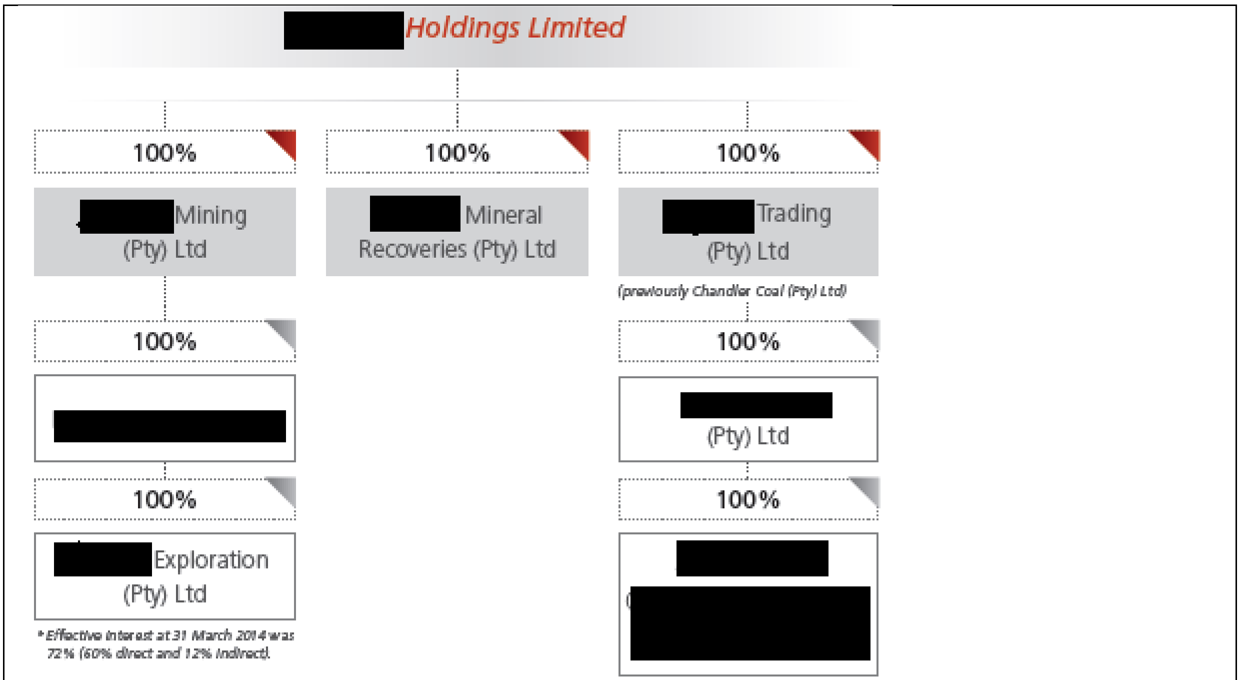
[54] BEE (Black Economic Empowerment) partners are those HDSAs who are involved in commercial business deals which are purposively structured around transformation initiatives.

[55] “Once empowered, always empowered” is when an entity is allowed to recognize a portion of black ownership after a black participant has exited EMPOWERDEX 2007. The Codes of Good Practice Scorecard Essentials. Empowerdex: Empowerdex..

Conversations surrounding the Charter highlight *Ownership* as the most topical condition. Users may be concerned with what companies are doing to ensure they remain operational as one of the consequences of non-compliance is the confiscation of the mining license, as discussed in the literature review. Through analysing the integrated reports, the researcher found that numerous contractual structures were put into place by mining companies to ensure compliance with *Ownership*[56] and these structures were disclosed mainly through the use of structural organograms with explanations. Extract 1 from the integrated report of Company 7 shows a graphical representation of the structure of the firm with an explanation of the BEE ownership below.

Extract 1: Company 7 (2014)



Black Economic Empowerment (BEE)

For the past eight years [redacted] has shared a successful partnership with [redacted] Portion Proprietary Limited [redacted]. The relationship extends back to 2007. As at 31 March 2014 [redacted], headed by [redacted] and other BEE shareholders, held 31.59% of the issued share capital of [redacted] Holdings Limited.

[redacted] was dissolved and its shareholders held their [redacted] interests in their individual capacities. The partnership between the [redacted] shareholders and [redacted] is strong, based on business principles, and adds value to [redacted] so much so that they have re-affirmed their stated intention to further increase their stake in [redacted]

Compliance with laws scored very high across all companies. The broadness of the disclosure contributed to it scoring higher than other themes as the integrated report serves as a summary of the financial and non-financial information produced by a company (Eccles and Serafeim, 2011; Krzus, 2011). In summarising B-BBEE disclosures, companies in the mining sector were more likely to discuss overall compliance with the relevant Acts and Charters instead of compliance with specific provisions of those Acts and Charters.

[56] Examples of such mechanisms include the formation of black-owned trusts, mergers with black-owned mines and broad-based employee share schemes.

Companies provided general reviews on compliance with specific implementation being scattered across different sections of the report. For example, Company 16 (see Extract 2) stated that they have “substantially complied with the elements of the Charter” in the Chairman’s report (page 15). The CEO’s report (page 27) goes deeper by explaining that the *Ownership* target of twenty-six percent has been met. The section in the report labelled ‘’Our Workforce’’ discusses the number of HDSAs[57] employed in total and in senior management (page 98). Lastly, a full breakdown of the Charter scorecard is provided (page 104) where every requirement of the Charter is broken down into its element (the actual element of the Charter, for example *Ownership*), description (what the Charter requires for each element) and measure (how the element is measured). Page 105 shows Company 16’s progress against meeting the 2014 Charter target for each element. This amount of detail per element was not common amongst the entire sample Integrated Reports.

Extract 2: Company 16 (2014)

ELEMENT	DESCRIPTION	MEASURE	MINING CHARTER COMPLIANCE TARGET BY 2014	PROGRESS AGAINST 2014 MINING CHARTER TARGET
REPORTING	Report on the level of compliance with the Revised Charter for the calendar year	Documentary proof of receipt from the DMR	Annually	Target met (Annual Submission)
OWNERSHIP	Minimum target for effective HDSA ownership	Meaningful economic participation	26%	35%

Employment equity had a considerably high score across the sample. B-BBEE disclosures related to *Employment equity* were provided in a wide variety of formats with companies discussing the issue in many contexts. For example, companies showed the number of HDSA’s in each level of management; the number of women employed by the company; details regarding affirmative action; plans to increase the number of Africans, Indians and Coloureds within the company and graphical representations of company demographics (tables, pie charts, doughnut-charts, etc.).

This disclosure was mainly found (fifty-four counts) in L10: Human capital (or equivalent) of the integrated report. From the spread of *Employment equity* disclosures, it appears that the mining sector accepts the need for transformation within the workplace in line with the objectives of the Employment equity Act (see King-III as a reporting framework).

Low frequency themes

The themes which achieved the lowest disclosure scores overall were: *Governance of Risk, Sustainability assurance* and *Reporting* (15, 17 and 23 respectively). Risk management is an essential part of corporate governance as it assists companies to identify threats and to take action. The lack of B-BBEE related risk disclosures is concerning as non-compliance with the relevant Acts can have far reaching consequences. The essence of integrated reporting

[57] Historically disadvantaged South Africans

is to link governance and strategy with risks and opportunities (see King-III as a reporting framework, *Governance committees*) (Ramsden, 2010; Wostmann et al., 2017). It would appear that the mining sector is missing a fundamental opportunity to be proactive in discovering strategies and opportunities related to B-BBEE. A predominantly reactive approach has been adopted by the sector and the lack of disclosures related to risks supports this analysis.

It is a requirement for companies to report on their progress towards meeting the Charter requirements to the Minister. Many companies disclosed individual requirements of the Charter or they focused on the sections in which they achieved excellence. It was not a common occurrence for companies to conclude on whether the Charter targets had been met overall. Consequently, it was not surprising that the score for *Reporting* was so low. Overall, the preparers of the integrated reports are clearly focused on only a few key aspects of B-BBEE reporting with the rest treated as supplementary information and scattered in different sections of the integrated reports.

Sector Analysis
The sectors contained in the sample included Chrome, Coal, Diamond, Gold, Platinum, Uranium and Iron, Steel and Aluminium. The figure below shows disclosure by sector.

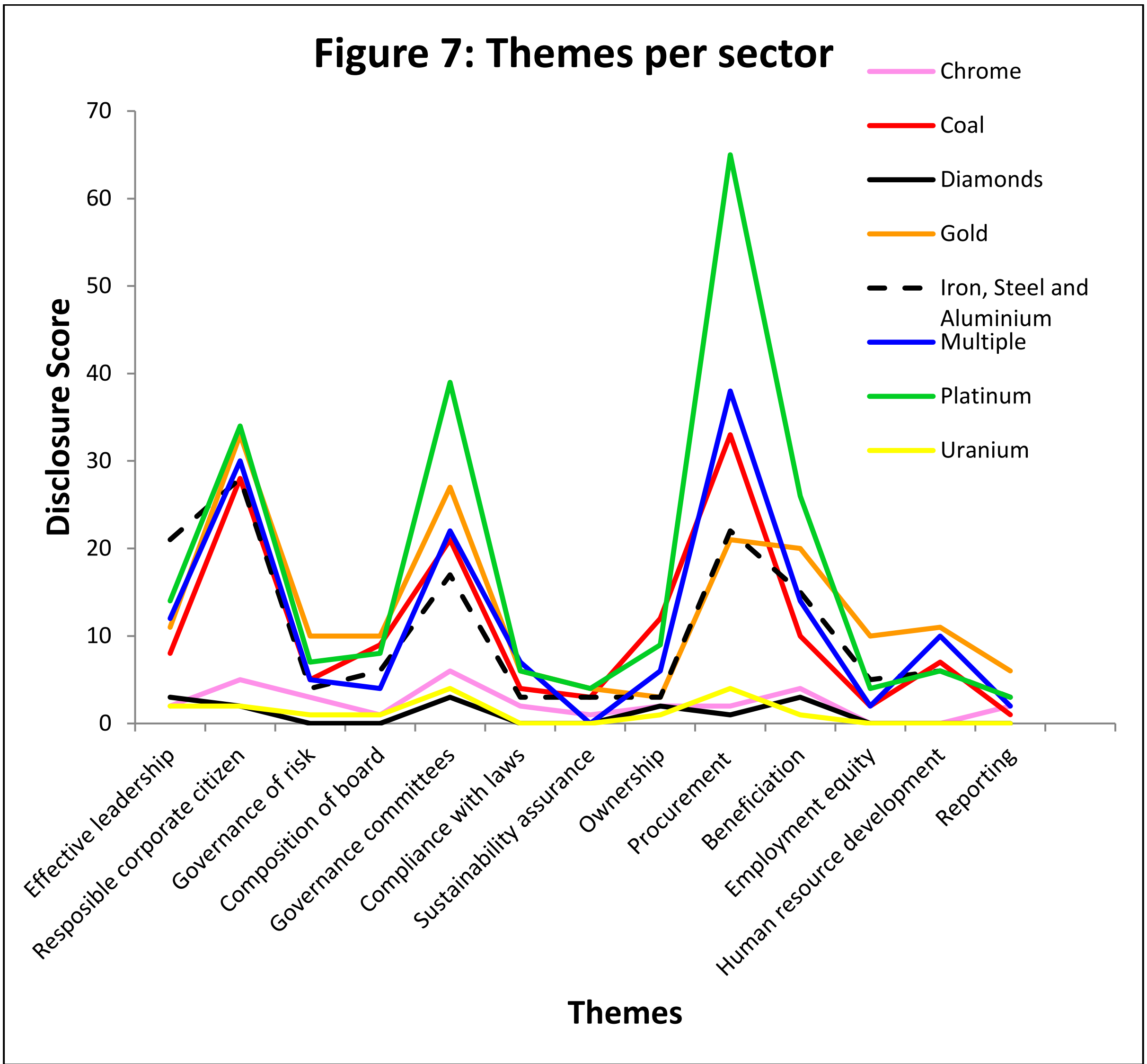


Figure 7 shows similar disclosure trends per sub-sector. Although the different sub-sectors have different operational and market characteristics, the B-BEEE-related issues are accounted for consistently.

The Platinum sector was the best performing sector, disclosing the most in relation to the other sectors on the majority of the themes presented. The high volume of social disclosures could also be linked to the surge in labour strikes that took place in 2014 and continued for approximately five months. The Platinum sector suffered huge losses during the protracted strike where labour unions and industry leaders engaged in heated negotiations regarding wage disputes (Hill and Maroun, 2015; Marcia et al., 2015; PwC, 2015). It is possible that these unfortunate events could be what is driving the industry to report on more social issues than the other sectors.

CONCLUSION

Summary and discussion

Using the principles of King-III, guidance from the Charter and a comprehensive literature review, a B-BBEE disclosure checklist was developed. This checklist was used to collect data from a sample of thirty-one listed mining companies in South Africa. The data was analysed using detailed content analysis and supported by basic statistical and interpretive text analysis. The disclosure scores were examined to identify key themes across companies and the minerals mined.

The analysis of the scores achieved by companies in the sample showed that companies are addressing each of the B-BBEE-related issues identified directly or indirectly in King-III and the Charter. The themes which were reported on most by the companies in the sample were ownership, compliance with laws and employment equity. Governance of risk, sustainability assurance and reporting disclosed the least.

Based on the literature review, *compliance with laws* was expected to rank more highly as it was established that a company's legal system will have a large effect on the integrated report (Frías-Aceituno et al., 2013). The results also revealed that while it is clear that companies identified that achieving the twenty-six percent ownership is the essence of the Charter, they failed to focus on other areas that warrant attention. Companies tend to focus on the requirements that they met, instead of focusing on those in which they need to improve. This finding is further emphasised by the low count of the governance of risk theme. This points to the industry being reactive as opposed to proactive as discussed in King-III (King-III, 2009).

The prior literature noted that integrated reports can be used as a signalling tool for risks in entities (Eccles and Serafeim, 2011). The underwhelming presence of the governance of risk revealed that the trend has not followed through to the mining sector.

Overall, companies in the sample produced a medium coverage of B-BBEE disclosures in their integrated reports. This coverage included excessive repetition and low importance was placed on the assessment of risk. Companies tended to focus on positive aspects of reporting as opposed to concentrating on a balanced view of their businesses. The integrated report should aid companies in addressing key issues that affect their operations.

Areas for future research

There are a number of recommendations for the future research of B-BBEE disclosures. No framework currently exists which measures B-BBEE disclosures for companies. It would be a significant contribution to the mining industry if such a framework were to be developed. The framework could assist the industry in disclosing all requirements that pertain to B-BBEE legislation and not just focus on the areas where they have excelled. This will force companies to provide a true account of their standing relating to transformation in corporate South Africa.

B-BBEE legislation is important and it does not just affect the mining industry. An area for further research could be looking at this legislation with regards to different sectors. A comparative study could be formulated which would observe the nature of reporting on the topic throughout the relative sectors.

In order to measure the reporting of companies on the requirements of the Charter, an additional study could analyse B-BBEE disclosure of companies over a number of years. Such a study would identify the changes in B-BBEE disclosures over time and attempt to assess what changes could be attributed to those respective legislative reforms.

Appendix A- Shows the construction of the disclosure checklist

Principle	Explanation	Application	Axial Codes developed using King III	Open Codes developed by analysing the integrated report.
1.1: The board should provide effective leadership based on an ethical foundation (King-III, 2009).	2. Responsible leaders build sustainable businesses by having regard to the company's economic, social and environmental impact on the community in which it operates(King-III, 2009).	A company should disclose the effect of BBBEE on the community in which it operates.	Effective leadership	Integration of BBBEE with the community Details of employee demographics
1.2: The board should ensure that the company is and is seen to be a responsible corporate citizen(King-III, 2009).	31. Strategies and policies should be planned and coordinated across all sections of the company. The negative consequences of fragmentation include duplication and missed opportunities for synergies. For example, a company may seek to respond to the pressing requirements of the industry's BEE charter, but fail to integrate these efforts effectively into a broader sustainability framework(King-III, 2009).	Companies should coordinate strategies and policies of BBBEE to avoid duplication of reporting or even contradictory terms. Companies should use the integrated report to clarify the linkage between sustainability and BBBEE.	Responsible corporate citizen	Integration of BBBEE with the company's social environment

9.2: Sustainability reporting and disclosure should be integrated with the company's financial reporting(King-III, 2009).	12. Reporting should be integrated across all areas of performance and should include reporting in the triple context of economic, social and environmental issues(King-III, 2009).	BBBEE should be integrated in the context of economic, social and environmental issues.	Responsible corporate citizen	Social transformation
2.2: The board should appreciate that strategy, risk, performance and sustainability are inseparable(King-III, 2009).	9. The board should identify key performance and risk areas as well as the associated performance and risk indicators and measures (such as compliance and sustainability)(King-III, 2009).	The objectives that are set as part of the strategy should be clear, measurable and sustainable.	Governace of risk	Identification of risks Mitigation of risks BBBEE targets used as a key performance indicator measure
2.18: The board should comprise a balance of power with a majority of non-executive directors. The majority of non-executive directors should be independent(King-III, 2009).	71. Every board should consider whether its diversity and demographics make it effective. Diversity applies to nationality and race(King-III, 2009).	The board must be racially diverse.	Composition of board	Diversity of board Composition of executive committee
2.23: The board should delegate certain functions to well-structured committees but without abdicating its own responsibilities(King-III, 2009).	130. The board of a listed company must establish a social and ethics committee(King-III, 2009).	A social and ethics committee will generally be tasked with responsibilities linked to BBBEE.	Governance committees (other than the board)	Legislative duties of the committee Transformation report by the social and ethics committee.

4.1: The board should be responsible for the governance of risk(King-III, 2009).	3. The board should be able to demonstrate that it has dealt with the governance of risk comprehensively(King-III, 2009).	The board should list risks related to BBBEE and include mitigating factors to show adequate risk management.	Governance of risk	Actions taken by the board towards B-BBEE Responses to B-BBEE risk
6.1: The board should ensure that the company complies with applicable laws and considers adherence to non-binding rules, codes and standards(King-III, 2009).	1. Companies must comply with all applicable laws(King-III, 2009).	The BBBEE Act is a law which companies must comply with.	Compliance with laws (binding and non-binding), codes and standards.	Compliance with laws and charters for example: - Non-compliance with the B-BBEE Act - Compliance with the B-BBEE Act
9.3. Sustainability reporting and disclosure should be independently assured(King-III, 2009).	17. A formal process of assurance with regard to sustainability reporting should be established(King-III, 2009).	Information disclosed regarding BBBEE in the integrated report should be independently assured.	Sustainability assurance	Independent assurance report

Principle			**Axial Codes developed using the Charter**	**Open Codes developed by analysing the integrated report.**
Achieve a minimum target of twenty-six percent ownership of HDSA by 2014 (South African Government, 2010)			Ownership	Dividends paid to BEE shareholders BEE partnerships Mining charter compliance targets Broad-based stakeholder value
Procure a minimum of forty percent of capital goods annually from BEE entities[i] by 2014. Procure seventy percent of services and fifty percent of consumer goods from BEE entities by 2014 (South African Government, 2010)			Procurement	Transforming our supply chain Supply chain management BEE procurement Employment equity and transformation % spend on BEE entities
Mining companies may offset the value of the level of beneficiation achieved by the company against a portion of it HDSA ownership requirements, not exceeding eleven percent (South African Government, 2010).			Beneficiation	Regulatory reform Progress towards beneficiation

Every mining company must achieve a minimum of forty percent demographic representation at: Board level Senior management level Core and critical skills Middle management level Junior management Each by 2014 (South African Government, 2010).			Employment equity	Exco composition by HDSA HDSA in management Board members by HDSA Employment of nationals
Every mining company must invest a percentage of payroll to essential development activities, representative of the demographics of the country.			Human resource development	Investing in our employees
Every mining company must report its level of compliance with the Charter annually (South African Government, 2010).			Reporting	Regulatory authorities Independent Mining Charter scorecard review Regulatory reform

Appendix B- Table showing companies in mining sector

Name	Primary Operations in SA	Operational	Integrated report for 2014/2015	Included in study
African Rainbow Minerals				✓
Anglo American Platinum				✓
Anglo American PLC	✗			✗
Anglo Gold Ashanti Ltd				✓
Aquarius Platinum Ltd				✓
ArcelorMittal South Africa Ltd				✓
Assore Ltd				✓
Atlatsa Resources			✗	✗
Bauba Platinum Ltd				✓
BHP Billiton PLC	✗			✗
Buffalo Coal Group			✗	✗
Buildmax Ltd				✓
Coal of Africa				✓
Delrand Resources Ltd	✗	✗		✗
DRD GOLD Ltd				✓
Eastern Platinum Ltd		✗		✗
Evraz Highveld Steel and Vanadium Ltd			✗	✗
Exxaro Resources Ltd				✓
Ferrum	✗	✗		✗
Firestone Energy Ltd		✗		✗
Glencore PLC	✗			✗
Gold Fields Ltd				✓
Goliath Gold Mining Ltd		✗		✗
Great Basin Gold Ltd		✗		✗
Harmony Gold Mining Compnay Ltd				✓
Hulamin Ltd				✓
Hwange Colliery Company Ltd	✗	✗		✗
Impala Platinum Holdings Ltd				✓
Infrasors Holdings Ltd				✓
Keaton Energy Holdings Ltd				✓
Kumba Iron Ore Ltd				✓
Lonmin PLC				✓
Merafe Resources Ltd				✓
Metmar Ltd				✓
Miranda Mineral Holdings Ltd		✗	✗	✗
Northam Platinum Ltd				✓
Oakbay Resources and Energy Ltd				✓
Pan African Resources PLC				✓
Petmin Ltd				✓
Platfields Ltd		✗	✗	✗
Randgold and Exploration Co Ltd		✗		✗
Resource Generation Ltd		✗		✗
Rockwell Diamonds Inc		✗		✗
Royal Bafokeng Platinum Ltd				✓
Sable Metals and Minerals Ltd		✗		✗
Sentula Mining Ltd				✓
Sibanye Gold Ltd				✓
South32 Ltd		✗		✗
South African Coal Mining Holdings Ltd		✗		✗
Tawana Resources NL		✗		✗
Tharisa PLC				✓
Trans Hex Group Ltd				✓
The Waterberg Coal Company Ltd		✗		✗
Westcoal Holdings Ltd				✓
Wesizwe Platinum Ltd		✗		✗
ZCI Ltd	✗	✗		✗
Total	7	18	5	

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APPENDICES

Appendix 1: JSE Top 40 Companies used as the research sample

	Code	Company	Title of Report	Is there a statement that the integrated report is the Primary Report to providers of financial capital?
1	BTI	British American Tobacco Plc	Annual Report	No mention
2	SAB	SABMmiller Plc	Annual Report	No mention
3	NPN	Naspers Ltd	Integrated Annual Report	No, but state that it provides a "full understanding of our group's performance"
4	CFR	Compagnie Fin Richemont SA	Annual Report and Accounts	No mention
5	BIL	BHP Billiton Plc	Annual Report	No mention
6	GLN	Glencore Plc	Annual Report	No mention
7	SNH	Steinhoff International Holdings N.V.	Integrated Report	No mention
8	SOL	Sasol Ltd	Annual Integrated Report	Yes
9	MTN	MTN Group Ltd	Integrated Report	Yes
10	FSR	Firstrand Ltd	Annual Report	No, but states that it contains the "primary results"
11	VOD	Vodacom Group Ltd	Integrated Report	No mention
12	OML	Old Mutual Plc	Annual Report	No mention
13	SBK	Standard Bank Group Ltd	Integrated Report	Yes
14	APN	Aspen Pharmacare Holdings Ltd	Integrated Report	No mention
15	SLM	Sanlam Ltd	Annual Report	No, but state that it's the users' "preferred report"
16	BGA	Barclays Africa Group Ltd	Integrated Report	Yes
17	REM	Remgro Ltd	Integrated Report	No mention
18	MDC	Mediclinic International Ltd	Integrated Report	No mention
19	MNP	Mondi Plc	Integrated Report	Yes
20	BVT	Bidvest Ltd	Integrated Report	No
21	WHL	Woolworths Holdings Ltd	Integrated Report	No mention
22	ITU	Intu Properties Plc	Annual Report	No mention

23	AGL	Anglo American Plc	Annual Report	No mention
24	NED	Nedbank Group Ltd	Integrated Report	No mention
25	BAT	Brait SE	Integrated Report	No mention
26	CCO	Capital & Counties Properties Plc	Annual Report	No mention
27	DSY	Discovery Ltd	Integrated Report	No mention
28	SHP	Shoprite Holdings Ltd	Integrated Report	No mention
29	RMH	RMB Holdings Ltd	Integrated Report	No mention
30	INP	Investec Plc	Annual Report	No mention
31	S32	South32 Ltd	Annual Report	No mention
32	GRT	Growthpoint Properties Ltd	Integrated Report	No mention
33	REI	Reinet Investments S.C.A	Annual Report	No mention
34	CPI	Capitec Bank Holdings Ltd	Integrated Report	No mention
35	TBS	Tiger Brands Ltd	Integrated Report	No mention
36	RMI	Rand Merchant Insurance Holdings Ltd	Integrated Report	No mention
37	NEP	New Europe Property Investments Plc	Annual Report	No mention
38	PSG	PSG Group Ltd	Integrated Report	Yes
39	MRP	Mr Price Group Ltd	Integrated Report	No mention
40	AMS	Anglo American Platinum Ltd	Integrated Report	Yes

Appendix 2: Further Analysis of JSE Top 40 Companies which used as Non- IFRS earnings measures

Company	Non-IFRS Measure Description	Non-IFRS Earnings/Earnings (%)	Headline Earnings/ Non-IFRS measure (%)
Capital&Counties Prop Pl	Underlying Earnings	2%	99%
Naspers Ltd	Core headline earnings	80%	64%
Mediclinic Internat Ltd	Normalised Headline Earnings	80%	119%
Rmb Holdings Ltd	Normalised Earnings	92%	100%
Sanlam Limited	Normalised Headline Earnings	94%	105%
Rand Merchant Ins Hldgs	Normalised earnings	96%	103%
Firstrand Ltd	Normalised Earnings	99%	101%
Intu Properties Plc	Underlying earnings	100%	89%
Psg Group Ltd	Recurring Headline Earnings	100%	99%
Standard Bank Group Ltd	Pro forma continuing operations headline	103%	100%
Mondi Plc	Underlying operating profit	106%	62%
Discovery Ltd	Normalised Headline Earnings	107%	89%
Aspen Pharmacare Hldgs L	Normalised Headline Earnings	107%	94%
Sabmiller Plc	Adjusted earnings	116%	89%
Woolworths Holdings Ltd	Adjusted Profit before tax	119%	63%
British American Tob Plc	Adjusted profit from operations	123%	0%
Investec Plc	Adjusted attributable earnings	138%	0%
Old Mutual Plc	Adjusted operating earnings	152%	69%
Glencore Plc	Adjusted EBITDA	275%	-5%
Bhp Billiton Plc	Underlying attributable profit	336%	0%
South32 Limited	Pro Forma Underlying Earnings	728%	0%
	Average	**142%**	**90%**

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FAC009 Brazilian private pension funds: a call for improved governance

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ABSTRACT:
As of 2014, Brazilian private pension funds (PPFs) present the fourth highest relationship between their assets and country's GDP, among the world's ten largest economies. The inherent conflict of interest between participants, sponsors, and managers might add to possible economic difficulties to be faced by Brazilian PFFs. Governance systems could enhance PPFs' ability to mitigate such potential conflicts of interest. Within this context, a governance scoring index was constructed for private pension funds, based on 34 indicators. The adherence of 110 Brazilian private pension funds to the governance practices were subsequently measured using this index in 2013, and determinants that explained cross sectional variance were studied. The results indicate that PPFs' behaviour depends largely on the public or private nature of the sponsoring entity. Privately sponsored PPFs with larger amounts of assets and level reliance on third-party services presented a higher score of governance.

Key-words: Governance. Private Pension Funds. Determinants

1. INTRODUCTION

Brazilian Private Pension Funds (PPFs) are important for their supplementary role on citizen's social security. PPFs are expected to be long-term oriented, and display a latent potential for conflicts of interest between these funds' management and participants. There is a multitude of challenges faced by Brazilian PPFs' managers, as well as various sources of risks born by participants. In this context, we analysed the sensibility of PPFs governance practices to explanatory factors suggested by the extant literature, which should improve value delivered by managers to participants.

Global life expectancy at birth rose to 70 years from 67 years, between the 2000-2005 and 2010-2015 five-year periods. Forecasts by the UN indicate that this expectancy will grow further, reaching 77 years in the 2045-2050 five-year period (United Nations, Department of Economic and Social Affairs, 2015). Consequently, retired participants of Private Pension Funds (PPFs) will expect to receive benefits from their individual pension accounts for a much longer period of time. This increased life expectation is confronted by an economic scenario of reduced economic growth rates, corporate profits, and interest rates. The conjunction of these demographic and economic factors may impair a PPF's ability to provide for its retired participants (Organisation for Economic Co-operation and Development. 2015).

Challenges faced by the Brazilian PPFs are even more complex. Between 1993 and 2013 the Brazilian population aged 65 or above increased by 70%. This increase was the second highest among the ten largest economies in the world (World Bank, 2016). Estimates of the Brazilian population over 65 show that this demographic will rise to 26.8% of the total population by 2060, from 7.4% in 2013, meaning one out of every four Brazilians will be in retirement (IBGE - Instituto Brasileiro de Geografia e Estatística, 2013).

In connection with the demographic challenges implied above, the economic environment presents additional bad news for the Brazilian PPFs. The ratio of PPFs' total assets to the country's GDP has reduced to 12% (2014) from 13% (2013) (Organisation for Economic Co-operation and Development. 2015). The International Monetary Fund (2016) forecasts contraction of the Brazilian Economy in 2016 (-3.8% growth) and zero growth in 2017. This outlook is even more negative when considering the negative (-3.5%) growth presented by the Brazilian economy in 2015, as measured by the IBGE (Instituto Brasileiro de Geografia e Estatística, 2016).

Conflicts of interest between fund management and PPFs' participants could escalate the level of challenges faced by the funds. It is likely that unethical behaviour of fund managers was responsible for the recent multi-billion-dollar deficits presented by Petros and Postalis, respectively the pension funds of the employees of Petrobras and of the Brazilian Post Office. In Postalis' case, former managers were convicted by the pension funds regulatory agency, the Superintendência Nacional de Previdência Complementar – PREVIC (National Superintendence of Pension Funds), due to irregular investments and sales of real state between 2010 and 2012 (Ministério da Previdência Social – MPS, 2015). These former managers were prohibited to act as fund managers for a ten-year period.

Conflicts of interest are one of the main assumptions considered by Jensen and Meckling (1976) in their definition of agency problems. When principals (sponsors, working and retired participants) and agents (PPF's management) are both utility maximizers, it is probable that the agent will not act in the principal's best interest. The agent could have personal interests that are prioritized in relation to the agents' objectives. Consequently, agents' decisions are either directly self-beneficial or implicate on exerting minimum effort to extract maximum benefits (Jensen & Meckling, 1976). Thus, the misalignment of incentives of principals and agents results in conflicts of interest.

The separation of ownership and control in pension funds makes these institutions prone to give rise to conflicts of interest, which could theoretically result in lower returns, higher operating costs and higher risks associated with managers' unethical behaviour, including incompetent management, fraud and embezzlement. Hence, governance mechanisms, as system of rules that constrain management behaviour, should be implemented in order to mitigate potential conflicts of interest (Benson, Hutchinson & Sriram, 2011)

In Brazil, efforts to improve the governance of PPFs have increased since the issuance of acts by the Conselho de Gestão da Previdência Complementar – CGPC (Governance Council of Private Social Security), namely the Resolution 13 of 2004 and Resolution 23 of 2006). In 2012, PREVIC published a Best Practices Manual regarding the governance of PPFs.

On a theoretical basis, Brazilian PPFs should adhere fully to requirements set forth by the acts promulgated by the CGPC. They should also be interested on voluntarily observing PREVIC's recommended Governance Best Practices. Through these actions, a PPF should achieve better governance and improve value delivered to its participants. Torres and Santos' (2008) study suggests that governance mechanisms implemented by Brazilian PPFs had a positive effect on returns delivered, with emphasis on the positive association between increased transparency and fund returns. In spite of the expected benefits due to improved governance, Lopes, Kataoka, Ribeiro Filho and Pederneiras' (2010) research found that 26.10% of the Brazilian PPFs do not disclose annual reports as required by the applicable legislation, 58.7% do not present a Governance section on their website, 76% do not disclose reports on investment risks, and only four funds disclose the semi-annual report issued by their fiscal councils.

The study of PPFs specific characteristics could provide some insight into why some PPFs display more governance-oriented behaviour and why some funds do not comply with minimum disclosure requirements. Some of these specific characteristics have already been studied by authors such as Ammann and Zingg (2008), whom studied Swiss pension funds, finding a meaningful and positive relation between the funds' amount of total assets and their level of adherence to governance's best practices. In a study of Australian PPFs, Tan and Cam (2013) found a negative relation between the funds' total expenses and their level of voluntary disclosure of governance practices, but no significant relation between this level and the amount of total assets. Lima (2014) reports a positive correlation between greater voluntary adherence to governance mechanisms and the size of assets and the age of the Brazilian PPFs. Nonetheless, none of the empirical studies reviewed in this paper analysed possible explanatory factors regarding the extension of Brazilian PPFs governance practices, taking the level of adherence to mechanisms recommended by the applicable legislation and by PREVIC as a measure of governance.

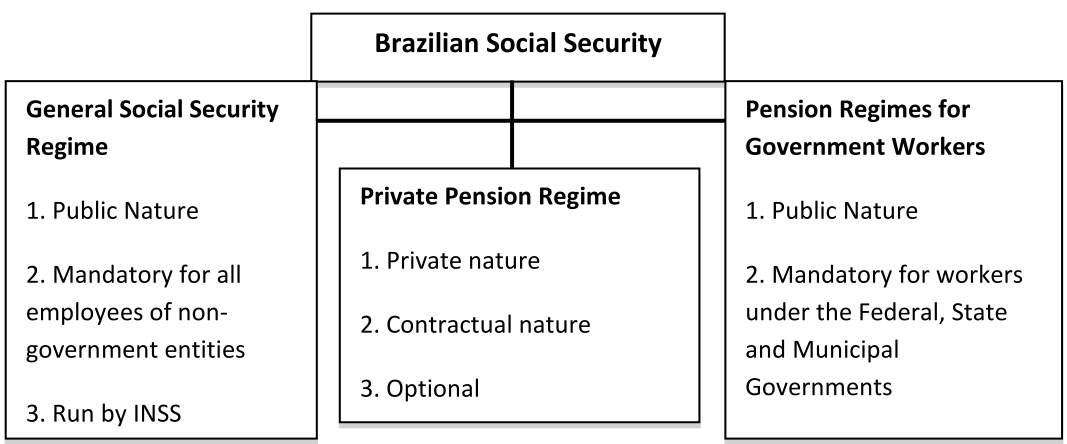
Our results suggest that the extent of governance practices adopted by Brazilian PPFs is dependent on the nature of their sponsoring entities. When the sponsoring entity is a privately owned company (publicly traded or not), factors such as size and percentage of invested funds from total assets positively influence the extent of governance practices, whereas the level of expenses that are outsourced to third parties have the opposite effect. However, when the PPF is sponsored by a government-owned entity, only the variable asset size is statistically significant, with a positive signal. In addition, our results show that PPFs sponsored by entities controlled by the Brazilian Federal Government have a greater extent of governance practices, when compared to their counterparts that are sponsored by entities controlled by State Governments.

The remainder of the article is presented as follows. First, an overview of the Brazilian pensions system is presented, followed by a description of the complementary private pension regime. Next, a discussion is presented regarding some of the conflicts of interest that may exist in Brazilian pension funds, along with the corresponding governance mechanisms designed to mitigate such conflicts. Section 5 presents the development of the hypotheses tested, complemented by research design explained in Section 6. Finally, results are presented and discussed in Section 7, followed by concluding remarks in Section 8.

2. OVERVIEW OF THE BRAZILIAN PENSION SYSTEM

The Brazilian Pension system is organized in three main regimes, (a) the public and mandatory, pay-as-you-go (PAYG) system known as General Social Security Regime (RGPS); (b) the Pension Regimes for Government Workers (RPPS); and (c) the Private Pension Regime (RPC) (Ministério da Previdência Social – MPS, 2008a). Figure 1 shows this structure in further detail.

Figure 1 – Brazilian Pension System’s structure



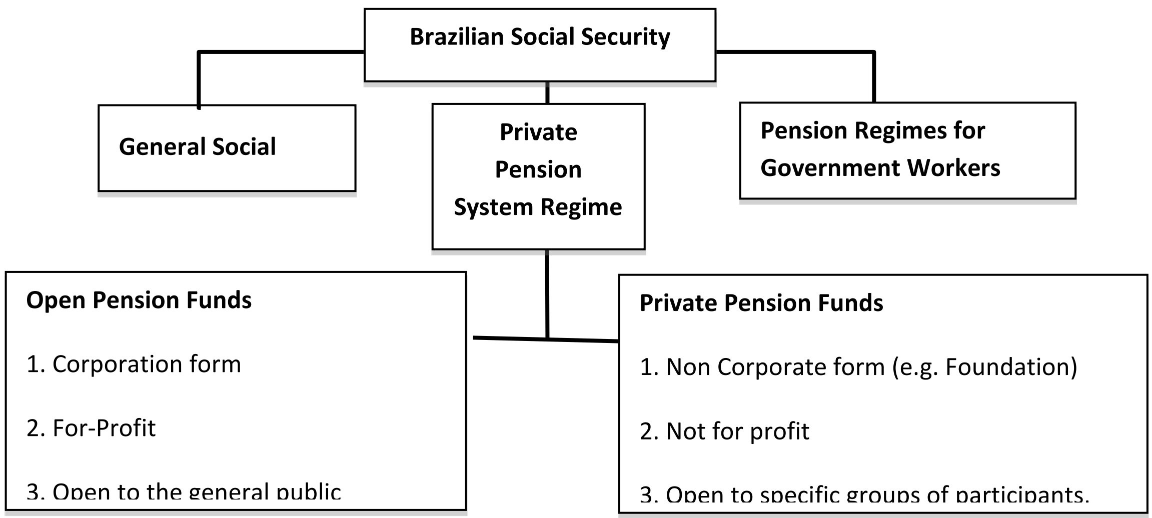
Source: (Ministério da Previdência Social – MPS, 2008b)

The Private Pension Regime is run by various entities, whose main objective is to create and manage pension funds. This regime is of private nature, being autonomous and complementary to the mandatory regimes mentioned earlier. It works through the accumulation of funds to be invested in order to provide adequate funding for future benefits (Domeneghetti, 2009). In the next section, we present the structure of the Private Pension Regime, emphasizing Private Pension Funds not available to the general public.

3. BRAZILIAN PRIVATE PENSION REGIME

The Brazilian Private Pension Regime is divided in two segments, Open Pension Funds and Private Pension Funds, as presented in Figure 2.

Figure 2 – Brazilian Private Pension Regime's structure



Source: Ministério da Previdência Social – MPS (2008)

While Open Pension Funds (OPFs) are for-profit corporations open to the general public, PPFs are organized in the form of foundations or non-profit organizations, and are not open to the general public. PPFs main objective is to manage collective pension plans of participants. Only employees of the sponsoring entity or members of a specific professional category can be participants of a PPF.

PPFs activities are monitored and supervised by PREVIC, which is a local authority with administrative and financial autonomy, which falls under the responsibility of the Ministry of Social Security of Brazil. PREVIC was created by Law 12,154, of December 23, 2009 (Brazil, 2009) (Corrar, 2013).

The funding of the PPFs benefit plans is a collective responsibility of the private and public organizations that sponsor the PPFs and of the PPFs. The PPFs own legal entities do not participate in this funding, being only responsible for the management of financial resources, resulting in the payment of the benefits expected by the participants (PREVIC, 2012).

Pension Funds are governed by the Federal Complementary Laws 108 (Brazil, 2001) and 109 (Brasil, 2001), both issued on 29 May 2001. Complementary Law 108 regulates the relations between the Union, the State and the municipalities, including their agencies, foundations and other companies, as sponsors of private pension funds, and these sponsored pension funds. These PPFs are categorized as PPFs sponsored by the public sector. Federal

Complementary Law 109 regulates private pension funds sponsored by private entities. This law states that the PPFs can offer common plans, when their plans are made available to their whole universe of participants, or they can offer multiple plans, which is the case when PPFs manage specific plans for different groups of participants, and there is equity independence among plans.

According to the Federal Complementary Laws 108 and 109, PPFs must maintain a minimum governance structure, composed of an Advisory Board, an Audit Board and an Executive Board. The Advisory Board is the highest level of the PPFs' organizational structure, being responsible for defining general policies of the entities' management and of their benefit plans. The Audit Board is the internal control body of the entity, being responsible for supervising the management of pension funds. The executive board is the body responsible for direct management of the entity and shall comply with the guidelines and policies established by the Advisory Board (PREVIC, 2012).

For publicly sponsored PPFs, the Advisory Board shall consist of a maximum of six people, with equal representation among members elected by the participants and sponsors. The Audit Board shall be formed by a maximum of four members, again with parity in the composition of representatives of participants and sponsors. The Executive Board has at most six members. The detailed composition of this body must be provided in the PPF's bylaws. Members of the boards under discussion must have experience in financial, administrative, accounting, legal, supervisory or auditing jobs, and a higher education degree in order to serve on the executive board.

In privately sponsored PPFs, at least one third of the positions on the Advisory Board and the Audit Board must have been elected by the participants. There is no cap on the boards' maximum number of members. Members are required to have experience in financial, administrative, accounting, legal, supervisory or audit activities. For executive management positions, there is no statutory maximum number of directors.

When the regulations imposed on publicly sponsored and privately sponsored private pension funds are compared, it is clear that publicly sponsored PPFs are subject to stricter rules of governance, mostly when it comes to the composition of their governance bodies. For instance, participants of publicly sponsored PPFs elect half of the members of the funds Advisory and Audit Boards, while participants of privately sponsored PPFs can elect a lower minimum number of members, as the Federal Complementary Law 109 states that only one third of the members of these governing bodies must be elected by participants, being the remainder members of the funds governing boards appointed by sponsoring entities.

Next, consideration is provided on the possible conflicts of interests arising from the relationship between participants, sponsors and managers of PPFs, along with a brief discussion of the governance mechanisms available for these entities in Brazil due to applicable legislation and recommendations of PREVIC.

4. CONFLICTS OF INTEREST AND GOVERNANCE MECHANISMS OF THE BRAZILIAN PPFs

Studies on agency theory focus on formal and informal contracts in which one or more persons (the principals) command another person (the agent) to perform some activity on the formers' behalf, with the delegation of some decision-making authority to the agent (Jensen & Meckling, 1976). The established delegation of authority, from the principal to the agent, can give rise to conflicts of interest. Considering Agency Theory's main assumptions, the conflicts of interest can, in the case of private pension funds, become even more complex than those existing in corporations, due to the increased number of principals and agents involved in the PPFs activities. There are contractual relationships between active and retired participants, sponsors and managers of the pension fund.

The sum of the PPFs' assets originates from funds resulting from contributions made by participants and sponsors. Mismanagement of these assets may lead to actuarial deficits. In such a case, sponsors and participants would have to make additional contributions of financial resources in order to ensure the payment of pensions to current and future assisted persons (Besley and Prat, 2003; Drew and Stanford, 2003; Blecher, 2004).

The management of a PPF's portfolio of investments can result in relevant conflicts of interest. The sponsor could for example take advantage of its position, and, by appointing the asset manager or directly influencing investment policies, direct the pension fund to invest largely in stocks of the sponsor group's companies (Besley and Prat, 2003). Conflicts of interest may also arise when the investments of the PPF's assets are made directly by third party financial institutions, hired specifically for this purpose. These financial institutions may include securities issued by themselves or by some of their clients in the PPFs' asset portfolio (Blecher, 2004).

Governance mechanisms can and must be implemented in order to mitigate potential conflicts of interest (Gillan and Starks 1998). The governance system of Brazilian PPFs is regulated by the government, starting from CGPC Resolution 13, issued on October 1, 2004. This resolution provides that the private pension funds shall adopt principles, rules and governance mechanisms, management practices and internal controls consistent with the funds absolute size, complexity and with the risks related to benefit plans operated by them.

CGPC's Resolution 13 incentivizes the development of governance mechanisms for Private Pension Funds. It specifies and details recommended governance structures and promotes the adoption of codes of governance best practices. The resolution emphasizes the active role of the oversight council and the desired level of professional quality required for directors. Another important issue is the recommendation for risk identification, assessment and monitoring, with additional focus placed on internal controls and the hiring of external auditors (Torres and Santos 2008). This resolution is summarized on Table 1.

Table 1 – Summary of Resolution #13, Issued by CGPC on October 1, 2004

Section	Summarized content
Governance Structure	The Executive Board, the Advisory Board and the supervisory board should foster a culture of internal controls throughout the organization. These governing bodies also need to maintain and promote a conduct guided by high standards of integrity and ethics. The adoption and dissemination of a code of ethics and conduct is recommended. This section also deals with the qualifications and responsibilities for the governance and management. It dictates that people who occupy these bodies need to have qualifications compatible with the complexity of their duties and emphasizes that members are legally responsible for the acts

	and omissions that cause damage to the PPF.
Risks and their monitoring	This section dictates that the PPFs' risks must be permanently identified, assessed, controlled and monitored. Such risks must be categorized by type of exposure and assessed for the probability of occurrence and the potential extent of impact. PPFs' internal controls must be reviewed and improved with the objective of managing and mitigating risks.
Disclosure and Information Systems	The relevant information needs to be disclosed to stakeholders and to the public, considering the cost-benefit ratio of such disclosures. Disclosure should be provided in clear and accessible language, through the use of appropriate tools. The resolution also provides that the pension fund should take action so that the information generated by their systems is consistent.
Reports from the Audit Board	The Audit Board must issue monthly reports with its findings, recommendations and the analysis of the manifestations of those responsible for areas relating to tests performed. This information shall be communicated promptly to the Board.
Final Provisions	Determines that the Advisory Board may buy insurance for litigation costs of current and formers directors and employees, in case of administrative and judicial proceedings arising from regular management acts. However, the PPF is prohibited to buy liability coverage, for criminal or administrative cases.

On December 6, 2006, CGPC issued Resolution 23, setting forth the procedures for providing information to participants and beneficiaries of PPFs. Resolution 23 requires that the statutes and their changes, the financial statements, annual reports, investment policies, plan regulations, and the actuarial report shall be made available to participants and beneficiaries through electronic means. Likewise, Resolution #23 provides hard deadlines for the submission of monthly balance sheets and financial statements to PREVIC.

Lopes et al. (2010) argue that the set of rules issued by CGPC aims to create an environment with minimum standards of economic, financial and actuarial security, preserving the equity of the participants and beneficiaries. It also seeks to provide transparency and improved disclosure of the management of pension funds, through full access for pensioners, who are the actual owners of the assets. In 2012, PREVIC issued a manual on governance best practices for PPFs, largely based on the OECD Guidelines for Pension Fund Governance (Organisation for Economic Co-operation and Development, 2009). This manual's sections are summarized in Table 2, in order to provide an overview of the recommended governance mechanisms.

Table 2 – Summarized descriptions of PREVIC Governance Best Practices Manual

Section	Summarized Description
1 - Governance in PPFs	States that PPFs must have at least one structure consisting of the Audit Board, the Advisory Board and the executive board. Defines the responsibility, composition and how to access each instance. It presents the role of PREVIC on the supervision and punishment to those responsible for acts and omissions contrary to the applicable law.
2 - Conflict of interest and governance	Discusses the importance of the directors and officers conducting the activities of the entities, based on the interest of the participants,

	sponsors and founders, through procedures and clear rules that allow the monitoring of their actions. Sets the principles of transparency, accountability, corporate responsibility and the adoption of internal control mechanisms.
3 - Transparency and communication with participants and sponsors	Commands clear and timely disclosure of information on investment policies, actuarial assumptions economic and financial situation and administrative costs to members of the Advisory Board, sponsors and participants.
4 - Fiduciary duty	States that all officers granted with management powers, as well as statutory board members will be held responsible for damages caused by act or omission.
5 - Code of conduct and ethics	Encourages the adoption of a set of rules of ethical conduct for the purpose of establishing the duties and responsibilities of boards, management, employees with management powers and outsourced service providers operating in the pension fund. States the sanctions to be applicable in case of non-compliance with the rules.
6 - Competence and training of directors and managers	Determines that the entity should adopt practices aimed at the professional training of officers and directors.
7 - Processes and controls,	Recommends the adoption of reasonable decision-making processes, to be disclosed to participants and sponsors, in order to promote transparency in the relationship with the PPF and reduce the potential for conflicts of interest.
8 - Risk management	Discusses the need for the PPF to identify, assess, monitor and control the risks to which it is exposed.
9 - Outsourcing and service providers	Provides that the choice of service providers should be performed by properly structured processes, which ensure the capacity, integrity and the absence of conflict of interest, by the provider. It also states that the managers and board members are not exempt from their responsibilities when hiring specialized services.
10 - Tax advice	Defines that the Audit Board is responsible for the effectively monitoring the PPF's activities. This statutory body has the role of exercising internal controls, supervise and monitor the results and issue reports, disclosing to the PPF and its participants and sponsors. The Audit Board does not exercise operational activities and does not replace the internal audit area.
11 - Entities with multiple plans	Recommends that multi-sponsored and multi-plan PPFs promote the co-responsibility of actions of officers and directors with sponsors and founders. The pension fund may establish a steering committee for the benefit plans in order to track and share decisions and responsibilities of management. However, the powers of the statutory bodies should be respected. The creation of this committee does not result in the transfer of responsibilities, but in sharing and strengthening management.

Between 2006 and 2013, the Brazilian government established regulatory measures aimed at strengthening governance practices for private pension funds. To the best of our knowledge, there is no empirical analysis on the extant literature dealing with which factors may explain the level and extension of governance mechanisms of the Brazilian PPFs. A deeper knowledge of the factors that result in the adoption of improved structures of governance can contribute not only to the issuance of regulatory measures of governance, but also on how to adjust actual legislation. This study can also assist pension funds on revising their governance systems and expanding their governance mechanisms. In the next section, we detail the hypotheses construction that result from this research's econometric model.

5. FORMULATION OF HYPOTHESES ABOUT THE FACTORS WHICH EXPLAIN THE EXTENT OF THE GOVERNANCE PRACTICES OF THE BRAZILIAN PPFS

Considering the conflicts of interest that impact the management of PPFs, we built a set of six hypotheses aiming to respond to the research problems. These hypotheses are based on the reviewed empirical literature and on the legislation applicable to Brazilian PPFs.

Ammann and Zingg (2008) found that the size of Swiss pension funds have a significant influence on the level of adherence to governance practices. The authors found that medium and small pension funds have serious weaknesses in their system of governance, such as the lack of transparency on the funding target. Lima (2014) found a positive and significant correlation between the highest score in the adherence to voluntary governance practices and the total asset size of Brazilian PPFs.

Since an organization is formed by a network of contracts, it is expected that the larger and more complex the organization is, the larger the number of contracts the organization takes part in. Hence, the system of governance of large pension funds should adopt a greater number of governance mechanisms to deal with the increased possibility of conflicts of interest that it would be exposed to. CGPC's Resolution 13 (CGPC, 2004) determines in its Article 1 that PPFs should adopt governance mechanisms that are compatible with their size. Hence, our first hypothesis is defined as follows (in alternative form):

H1: There is a positive relationship between the size of a pension fund, measured by the amount of its total assets and the extent of its governance practices, ceteris paribus.

There is a conflict of interest whenever the sponsor, in opportunistic behaviour, decides to invest PPFs resources in shares of the sponsor group's companies, without risk-adjusted earnings prospects that justify the investment (Besley and Prat, 2003). This decision's impact is directly proportional to the volume of funds invested in the fund sponsor's related companies. We were not able to obtain access to the detailed portfolio of the sample PPFs, due to the private nature of such information. Resolution 3,792 of 2009 (Banco Central do Brasil, 2009), issued by the Central Bank of Brazil, provides that the financial resources of the PPFs must be invested by the management observing the risk, profitability, solvency and liquidity of the investments.

In order to mitigate possible conflicts of interest arising from the management of large pools of funds, it is expected that pension funds adopt governance mechanisms to give sponsors and participants more information about their investments' management, and the extension of these governance mechanisms is associated with the percentage of PPFs' funds effectively invested. Therefore, we propose the following hypothesis (in alternative form):

H2: There is a positive relationship between the percentage of invested funds from total assets and the extent of a PPF's governance practices, ceteris paribus.

Another potential conflict of interest to which PPFs are prone, consistent with Jensen and Meckling's (1976) theory, is managers self-benefiting behaviour, manifested through a least-effort attitude. In a PPF, this kind of behaviour could result in increased costs and expenses, impairing participants' funds. In order to mitigate this problem, CGPC' Resolution 13 requires that PPFs maintain a management and operational structure sufficient to run their pension plans, avoiding wasted funds or costs that are not compatible with the fund's size.

Bateman and Mitchell (2004) state that the administrative costs of pension funds are passed on to participants through administrative fees. The increase in expenses and administrative costs may result in increases in these administrative fees, hampering pension funds' capital accumulation. The authors conclude that an increase of 1% in administrative fees over 40 years reduces the pension savings by 27%, by retirement age.

Tan and Cam (2013) found in their research that operating expenses have a negative relationship with the level of voluntary disclosure of governance practices of Australian pension funds. Specifically, the authors found that higher disclosure costs lead to a lower level of disclosure of governance practices. Given this situation, it is possible to infer the following hypothesis (in alternative form):

H3: There is a negative relationship between the level of a PPF's total expenses (divided by total assets) and the extent of governance practices, ceteris paribus.

Blecher (2004) reports that the outsourcing of the investment management function can lead pension funds to invest their resources in assets that are of primary interest to the service provider and not to the PPFs' best interest. Bikker and de Dreu (2007) assumed that outsourcing would have a negative relationship with the administrative costs of the Dutch pension funds. However, they found a positive relationship.

PREVIC's Governance Manual provides that PPFs should adopt governance tools to ensure the integrity of outsourced activities. Article 4 of CGPC's Resolution 13 also requires governance mechanisms in order to ensure that third party service providers have adequate qualifications. In addition, there is a need to constantly optimize the cost-benefit ratio in the management of pension funds. Considering that PPFs with a higher level of outsourced activities should present improved levels of governance in order to mitigate the augmented risk of conflicts of interest, we formulated the following hypothesis (in alternative form):

H4: There is a positive relationship between the level of a PPF's outsourcing expenses and the extent of its governance practices, ceteris paribus.

Ammann and Zingg (2008) claim that fraud and mismanagement of pension funds have put the governance of these organizations at the center of public interest, in countries like

Switzerland, Germany, the Netherlands and the UK. These events could result from conflicts of interest and potentially affect the performance of pension funds. They might even compromise the fund's actuarial balance. Kowalewski (2012) argues that in many countries politicians are paying attention to how the resources of the pension funds are administered and taking into account various reforms to increase the return on investment of pension funds. Research of Yang and Mitchell (2005), Ambachtsheer, Capelle and Lum (2007), Torres and Santos (2008), Ammann and Zingg (2008), Benson et al. (2011) and Kowalewski (2012), identifies a positive relationship between the level of adherence to governance practices and the performance of pension funds.

As shown by the extant literature, the public and political debate on governance in pension funds is often centred on the misuse of the assets of these organizations. However, the governance of pension funds has a much broader scope and includes overall management, organizational design and decision-making processes. Accordingly, we propose the following hypothesis (in alternative form):

H5: There is a positive relationship between the PPF's financial performance and the extent of its governance practices, ceteris paribus.

The sponsor could direct the investment of pension fund assets in assets of its own interest (Besley and Prat, 2003). In Brazil, the study of Ribeiro Filho, Libonati, Lopes and Santiago(2008) identifies this behaviour. The authors found that if the pension fund is sponsored by government entities, investments tend to be directed to government bonds. When the PPF is sponsored by private entities, investments are channelled to financial institutions. Research by Pereira, Niyama and Sallaberry (2004) and Pasqualeto, Mangoni, Da Silva, Teixeira and Macagnan (2014) found that publicly sponsored PPFs have a level of administrative expenses beyond that of the privately sponsored PPFs.

It is noteworthy to emphasize that publicly sponsored and privately sponsored pension funds are subject to different regulatory demands. Publicly sponsored PPFs' directors are frequently appointed based on political decisions, taken by their sponsoring entities. Due to these significant differences between privately and publicly sponsored PPFs, we formulate the following hypothesis (in alternative form):

H6: The extent of governance practices of the PPF is influenced by the private or public nature of the PPF's sponsoring entity, ceteris paribus.

In summary, we present in Table 3 all of these research hypotheses and the predicted signals of the respective coefficients.

Table 3 – Hypotheses and Predicted Signal

Hypotheses	Predicted Signal
1. PPF's assets as of December 31, 2013	(+)

2. Total of invested funds by PPFs as of December 31, 2013	(+)
3. Total of PPF's expenses as of December 31, 2013	(-)
4. Total of outsourcing expenses by the PPF as of December 31, 2013	(+)
5. PPF's financial performance as of December 31, 2013	(+)
6. Whether the PPF has a government related sponsor or is sponsored by private entities	(*)

Positive relation (+)
Negative Relation (-)
Undetermined relation (*)

In the next topic, we present the econometric model developed in order to test the hypothesis set forth in the present section.

6. RESEARCH DESIGN AND SAMPLE SELECTION

Based on the hypothetical factors that could explain the extent of the governance practices of PPFs, we built an OLS regression in order to test for the predicted signal of the form:

$$NG_i = \beta_0 + \beta_1 (ATV_i) + \beta_2 (PART_i) + \beta_3 (PLN_i) + \beta_4 (INV_i) + \beta_5 (DESP_i) + \beta_6 (DESPT_i) + \beta_7 (RENT_i) + \beta_8 (RTMA_i) + \beta_9 (PAT_i) + \varepsilon_{i.}, \quad (1)$$

where the dependent variable, NG_i is our constructed governance score as proxy for the extent of governance practices of the PPF_i. NG_i was built through the development of a computed governance score, containing 34 questions regarding governance indicators for private pension funds, detailed on Appendices A and B.

These indicators of governance were based on the applicable legislation governing PPF's governance, including the Federal Complementary Laws #108/2001 and #109/2001, Resolution CGPC #13/2004 and # 26/2006 and PREVIC's Best Practices Manual regarding the governance of PPFs. All of the PPFs scoreboards were calculated based on the observation of the PPFs websites. The detailed composition of the governance score is explained in detail on Appendices A and B.

The governance indicators included on the computed score were submitted to the evaluation of five experts whom work at PPFs, in management or governance jobs. These professionals provide services to publicly sponsored large private pension funds such as Bank of Brazil's PPF (Previ), Banrisul Social Security Foundation, CEEE Social Security Foundation and Corsan Foundation. We also consulted on the indicator's validity with PRP Accounting Solutions, a company specialized at providing professional services to PPFs. The experts' contribution helped in classifying the nature of the indicators, as well as in refining the definition, exclusion and replacement of indicators.

In order to quantify the responses obtained through the data collection, we attributed each indicator a value of one when the PPF *i* provides the data regarding the indicator on its website, and zero otherwise. page of the respective organization. If data regarding the indicator was not available, it was assumed the value (0). The level of adherence to governance practices of each of the sample's PPFs was then measured in the following form:

$$NG_i = \frac{\sum_{i=1}^{n} x_{ij}}{n_i} \quad (2)$$

where the total number of governance indicators for each PPF$_i$ is given by *ni*, the actual number of positive indicator $_j$ is given by the sum of indicators x_{ij}. When the indicator x_{ij} is present, it is given a value of one, and zero otherwise. This computation is usual on the extant literature on the governance of PPFs, and results in a percentage level (NG_i), which is taken as our model's dependent variable.

Table 4 presents a summary of the definition of our model's explanatory variables, adopted in order to allow for the testing of the hypotheses formulated in the previous section.

The RENT variable was based on the gross return on investment from the PPF's investment portfolio. We were not able to obtain the necessary data for estimating risk-adjusted returns, Sharpe ratios or Traynor ratios. Regarding the RTMA Variable, Resolution CNPC 09/2012 determines that the maximum real interest rate allowed in the actuarial projections of the benefit plan, utilized in 2013 in order to discount the calculation of the present value of the contribution inflows and benefits is 5.75% per year plus the INPC (which is an inflation measure). This rate is taken as the minimum actuarial target. PPFs are recommended to achieve a return on investment above the minimum actuarial target, in order to maintain actuarial balance. For this variable, a dummy variable taking value of "1" was considered when the PPF reached profitability higher than the actuarial target.

Table 4 – Explanatory Variables

Hypothesis	Explanatory Variable	Description
H1 - Size	ATV	Log of Total Assets
	PART	Log Number of participants.
	PLN	Number of pension plans offered.
H2 - Invested Funds	INV	Total amount of invested funds divided by total assets
H3 - Total Expenses	DESP	Total amount of expenses divided by total assets
H4 - Outsourcing Expenses	DESPT	Total amount of outsourcing expenses
H5 - Financial Performance	RENT	Return made by the PPF on its investment portfolio
	RTMA	Dummy variable for PPFs that obtained a return on their investments superior to their minimum actuarial rate (as set by PREVIC)
H6 - Kind of Sponsorship	PAT	Factor identifying whether the PPF's sponsoring entity is of government or private nature.

6.1. Population, Sample and Data Collection

PREVIC classifies pension funds into classes according to the amount of their total assets, as presented in Table 5. In our sample, we included PPFs of the Groups A, B and C, totalling 125 pension funds. The total of the sample of PPFs' assets is representative of 96,15% of the total assets of the population of PPFs. In the same manner, the total amount of invested funds by the sample PPFs represents 96,08% of the total invested funds of all PFFs. Subsequently, we searched each of the sample PPF's website, and analysed the availability of information on the existing websites, resulting in a final sample comprising 110 PPFs.

Table 5 – PPF Classes as defined by PREVIC

Class	Assets
A	Assets > R$ 15 billion
B	R$ 2 billion ≤ Assets < R$ 15 billion
C	R$ 500 million ≤ Assets < R$ 2 billion
D	R$ 100 million ≤ Assets < R$ 500 million

E	R$ 100 million < Assets

Data collection in order to compute the dependent variables for our regressions, which proxies for the level of adherence to governance practices (NG), was carried out based on the information disclosed by PPFs on their websites. Whenever required information was not directly observed through navigating the entity's website, the search tool provided by the website was utilized. The data was collected in December 2014. It is important to note that the data collected refers to information that was current at the time of collection, with the exception of the Annual Information Report (RAI), whose information corresponds to the year 2013, the most recent RAI available at the time of data collection. Data regarding the model's explanatory variables were made available by the PREVIC, and refer to the year 2013.

6.2 Descriptive analysis of data

In Table 6, Panel A, summary statistics for the behaviour of the sample PPFs' NG_i variable are presented. Given that PPFs can be categorized as sponsored by government owned entities or by private entities, Panels B and C of Table 6 present summary statistics for NG_i for both categories of PPFs. Differences between publicly and privately sponsored PPFs' mean scores are all significant, at least at the 5% level. Overall, the mean level of NG_i for the sample of PPFs was 17.27, corresponding to the adoption of 50.79% of the possible indicators of governance. This indicates that Brazilian PPFs do not present a high level of adherence to governance best practices. Moreover, sample PPFs adhere to mandatory governance practices more frequently than their adherence to voluntary practices.

Table 6 – Summary statistics regarding PPFs' NG_i (N = 110 PPFs)

Panel A – All PPFs within sample				
Category of Governance practice	Maximum	Mean	Minimum	Standard Deviation
Voluntary	15	5.55	1	2.46
Mandatory	17	11.73	3	2.63
Both	30	17.27	4	4.11
Panel B – PPFs sponsored by government entities				
Category of Governance practice	Maximum	Mean	Minimum	Standard Deviation
Voluntary	15	6.62	3	2.41
Mandatory	17	12.44	7	2.14
Both	30	19.07	13	3.45
Panel C – PPFs sponsored by private entities				
Category of Governance practice	Maximum	Mean	Minimum	Standard Deviation
Voluntary	9	4.80	1	2.23
Mandatory	15	11.23	3	2.83
Both	23	16.03	4	4.09

Our results are similar to those reported by Lima (2014), which, based on an Institutional Theory framework, identified that the level of adoption and disclosure of mandatory governance practices by PPFs is superior to that of voluntary practices. Nonetheless, Lima (2014) reports an average percentage of 75% for the level of adoption and disclosure of governance practices for its sample of PPFs, a much higher percentage than the one reported in our paper, namely 50,79%.

On average, the level of adherence of PPFs sponsored by government entities to governance practices within our sample is 19.07 points, representing 56.08% of the total indicators. Just as for the full sample, PPFs sponsored by government entities also tend to adhere more strongly to mandatory governance practices. On average, these organizations have a 12.44 points score, which corresponds to 73.20% of the total mandatory governance indicators. For PPFs sponsored by private entities, we found that, on average, adherence to governance practices was 16.03 points, representing 47.14% of total indicators. The adherence of privately sponsored PPFs to mandatory governance practices is stronger when compared to voluntary practices, but weaker than the adherence presented by publicly sponsored PPFs.

Our results show that the PPFs sponsored by government entities tend to have better levels of governance compared to those PPFs of private sponsorship. This finding could be explained by the size of the pension funds. In our sample, 53% of the government sponsored PPFs are within groups A and B of PREVIC size stratification. This means that they have assets in excess of R$ 2 billion. Regarding Privately sponsored PPFs, however, only 31% have assets in excess or R$ 2 billion.

The governance practices adopted by the highest frequency of PPFs were: (i) the disclosure of the PPFs charter (equivalent to their bylaws) and (ii) the representation, within the PPFs charted, of detailed description of responsibilities, composition, duration and termination of mandate for the members of the PPF’s statutory bodies. These indicators presented an adherence of 96.36%. This result is expected because these indicators are required by virtue of laws and resolutions applicable to PPFs. It should also be noted that the indicators regarding annual report disclosure, code of ethics and governance manual presented adoption of 74.55%, 72.73% and 30.31%, respectively. Vasquez's (2007) research found similar results. The level of disclosure of the PPFs’ charter was 88.89%, the annual report was 71.43% and the governance manual was 26.98%. The only result significantly different was the code of ethics, which had a disclosure rate of 52.38%.

The indicators that have the lowest level of adherence by PPFs are (i) existence of internal regulations for the constituted committees, (ii) internal audit reporting directly to the deliberative council, and (iii) semi-annual reports of internal controls, issued by the Audit Board. For these indicators only 6 of the sample’s PPF have demonstrated to adopt such governance practices. The indicators regarding (i) the existence of internal regulations for the boards of directors and (ii) the disclosure of the directors and officer’s qualifications, also presented low adherence. The former was reported by 09 PPFs and the latter by 10 PPFs. These results are convergent to those presented by Lopes et al (2010).

Summary statistics regarding quantitative explanatory variables are presented in Table 7.

Table 7 – Summary statistics of Quantitative explanatory variables (N = 110 PPFs)

Quantitative explanatory variables	Mean	Maximum	Minimum	Standard Deviation
Log Total Assets	21.39	25.87	20.03	1.15
% Invested Funds	0.96	1.00	0.54	0.07
% log Total Expenses divided by log Total Assets	0.75	0.84	0.62	0.03
% Outsourced Services Expense	0.30	0.94	0.04	0.23
Log number of Participants	9.03	12.06	6.37	1.16
Return on investments	0.02	0.14	-0.14	0.06
Log quantity of plans offered	0.94	3.76	0	0.79

The average total value of sample PPFs' assets is R$ 5.67 billion. Of this total assets, an average of R$ 5.4 billion is invested. Thus, the average percentage of invested assets corresponds to 96% of total assets. The average expenses of sample PPFs is R$ 20.85 million, and on average, 30% of these expenses are outsourced services, which is equivalent to an average of R$ 4.26 million. The average number of participants is 17,409, and the average number of benefit plans under the PPFs' management if 4. Finally, the pension funds analysed in this research earned an average return of 2% on the investments made. Variables Total Assets (ATV), Total expenses (DESP), number of participants (PART) and number of plans (PLN) were estimated in natural logarithm form, due to their standard deviation being greater than their means.

Finalizing this descriptive analysis of the explanatory variables considered in the model, regarding the dichotomous variables, it was found that of the 110 pension funds studied, 65 are privately sponsored and 45 are publicly sponsored. Of this total, only 2 had profitability higher than the maximum actuarial target.

The analysis of the correlation coefficient between the variables is presented in Table 8. Correlation indexes higher than 0,8, if observed, are considered an indication of multi-collinearity, and should be dealt with appropriately. The variables Number of Participants (PART) and Total Expenses (DESP) are moderately correlated, as are the variables, kind of sponsorship (PAT) and expenses related variables (DESP and DESPT). No pair of variables presents unacceptable correlation coefficients. Thus, all of the variables were considered in the estimation of the econometric model, presented on the following section.

Table 8 – Variables Correlation Matrix

	1	2	3	4	5	6	7	8	9	10
1. NGFP	1									
2. DESP	0.19	1								
3. DESPT	-0.37	**-0.54**	1							
4. INV	-0.02	-0.24	0.30	1						
5. ATV	0.35	0.20	-0.20	-0.12	1					
6. PART	0.01	-0.03	0.09	-0.03	**0.65**	1				
7. PAT	-0.36	**-0.54**	**0.52**	0.34	-0.23	-0.02	1			
8. PLN	0.13	0.21	-0.19	-0.08	0.45	0.42	-0.05	1		
9. RENT	0.10	0.03	-0.18	-0.02	-0.02	-0.09	-0.03	-0.16	1	
10. RTMA	0.14	-0.09	-0.09	-0.14	0.15	0.07	-0.03	0.05	0.26	1

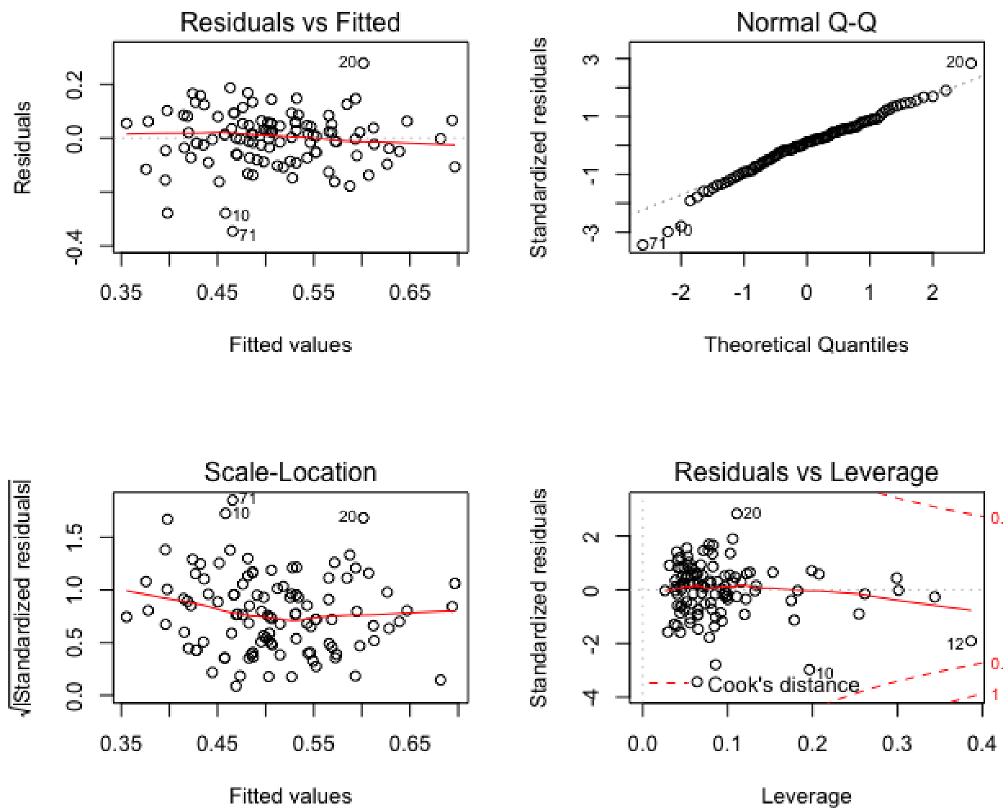
7. MULTI-VARIATE LINEAR REGRESSION ANALYSIS

The estimation of the econometric model described in equation (1) followed OLS regression on cross-sectional data regarding calendar year 2013, with a sample of 107 observations, due to the exclusion of three outliers, presented in Table 9, which resulted on non-normally distributed residuals, as shown in figure 3. Results with the unadjusted sample were statistically significant at 1% for variables representing size and kind of sponsoring entities. Since our sample of PPFs is small, having only 110 total observations, residuals with non-normal statistical distribution could result in biased or inefficient estimators.

Table 9 – Summarized information about the observations excluded from the sample, due to their large effect on residuals, resulting in non-normally distributed residuals from estimating equation (1)

PPF	NG*i*	Assets (Billion BRL)	Sponsor	Participants	Class
BB PREVIDENCIA	0.18	2.235	Private	71,776.00	B
CERES	0.88	4.017	Federal Government	16,741.00	B
ODEPREV	0.12	1.616	Private	16,413.00	C

Figure 3 – Analysis of residuals



Note: Plots regarding the analysis of residuals from the estimation of equation (1) with all the observations within the sample. Observations 10, 20 and 71 are the observations with larger estimation errors.

Results of the estimation of equation (1) with the adjusted sample are presented in Table 10. Residuals are normally distributed, but it was not possible to reject the alternative hypothesis of heteroscedasticity through the Breusch-Pagan test. Because of that, results in Table 10 are presented with robust standard errors and consequently robust p-values (using White's estimator).

Considering the differences between PPFs sponsored by government entities and by private entities, additional models were estimated separately for each kind of sponsor. Summarized results are presented in Table 11. P-values regarding Private Sponsor regression are robust for heteroscedasticity (White's correction).

Table 10 – OLS Regression results - Adjusted Sample

OLS regression parameter estimates are reported from the model based on equation (1):
$NG_{i} = \beta_0 + \beta_1 (ATV_i) + \beta_2 (PART_i) + \beta_3 (PLN_i) + \beta_4 (INV_i) + \beta_5 (DESP_i) + \beta_6 (DESPT_i) + \beta_7 (RENT_i) + \beta_8 (RTMA_i) + \beta_9 (PAT_i) + \varepsilon_i$.. Variable definitions are contained in Table 4. Statistical significance represented by ***, **, and * for 1%, 5%, and 10% levels, respectively.

Dependent Variable: NG_i

Observations: 107

Variables	Coefficient	Robust Std.-Errors	T-Statistic	P-Value	
DESP	-0.3194261	0.2905421	-10994	0.274309	
DESPT	**-0.1487905**	**0.0570649**	**-26074**	**0.010564**	**
INVEST	0.2663362	0.1679587	15857	0.116057	
ATV	**0.0380559**	**0.0088459**	**43021**	**0.000000**	***
PART	-0.0136590	0.0097427	-14020	0.164114	
PAT	**-0.0444112**	**0.0238626**	**-18611**	**0.065755**	*
PLN	-0.0021282	0.0139812	-0.1522	0.879331	
RENT	-0.1139937	0.1345664	-0.8471	0.399014	
RTMA	**0.0948542**	**0.0251698**	**37686**	**0.000282**	***
Intercept	-0.1221325	0.3083189	-0.3961	0.692884	
R-squared	0.3594	Adjusted R-squared		0.3	
F-Statistic	6.047	Prob (F statistic)		1,05E-03	
Durbin-Watson	203.642				

*** 1% significance, ** 5% significance e *10% significance.

Source Prepared by the authors

Table 11 – OLS Regression results - Adjusted Sample - By category of sponsor

OLS regression parameter estimates, considering split samples due to the nature of the sponsoring entity, are reported from the model: $NG_{i} = \beta_0 + \beta_1 (ATV_i) + \beta_2 (PART_i) + \beta_3 (PLN_i) + \beta_4 (INV_i) + \beta_5 (DESP_i) + \beta_6 (DESPT_i) + \beta_7 (RENT_i) + \beta_8 (RTMA_i) + \beta_9 (PAT_i) + \varepsilon_i$.. Variable definitions are contained in Table 4. Statistical significance represented by coefficients and p-values in bold font. Standard errors and t-values suppressed for brevity.

Dependent Variable: NG_i

	Private Sponsor		Government Sponsor	
Observations:	63		44	
Variables	Coefficient	P-Value	Coefficient	P-Value
DESP	-0.220718	0.65915	-0.417229	0.5676
DESPT	**-0.159766**	**0.00648**	-0.041724	0.8097
INVEST	**0.474400**	**0.01145**	0.010520	0.9570
ATV	**0.048412**	**0.00775**	**0.035434**	**0.0419**
PART	-0.023261	0.14485	-0.008344	0.6580
PLN	0.002291	0.91284	-0.012173	0.5663
RENT	-0.076757	0.72747	-0.160887	0.5276
RTMA	0.084482	0.17986	0.122210	0.2203
Intercept	-0.574599	0.26461	0.190267	0.7706
Adjusted R Squared	0.2677		0.05512	

Durbin Watson	1.882747	1.864.467
Breusch Pagan p-value	0.04965	0.2283

Source: Prepared by the authors

Based on the assumption that one should expect a higher variance between the level of adoption of voluntary governance practices, when compared to the expected adoption of the mandatory practices, a modified estimation of equation (1) replacing the dependent variable (NG_i) for the percentage of voluntary governance practices adopted by PPFs was run. Results are reported on Table 12. P-values regarding Private Sponsor regression are again robust for heteroscedasticity (White's correction).

Table 12 – OLS Regression results - Adjusted Sample - By category of sponsor

OLS regression parameter estimates, considering split samples due to the nature of the sponsoring entity, are reported from the model: $VoluntaryNG_i = \beta_0 + \beta_1 (ATV_i) + \beta_2 (PART_i) + \beta_3 (PLN_i) + \beta_4 (INV_i) + \beta_5 (DESP_i) + \beta_6 (DESPT_i) + \beta_7 (RENT_i) + \beta_8 (RTMA_i) + \beta_9 (PAT_i) + \varepsilon_i$. $VoluntaryNG_i$ is estimated following NG_i estimation, but only considering voluntary governance practices. Variable definitions are contained in Table 4. Statistical significance represented by coefficients and p-values in bold font. Standard errors and t-values suppressed for brevity.

Dependent Variable: $VoluntaryNG_i$				
	Private Sponsor		Government Sponsor	
Observations:	63		44	
Variables	Coefficient	P-Value	Coefficient	P-Value
DESP	**0.815564**	**0.031399**	-0.929440	0.336
DESPT	**-0.148617**	**0.003966**	-0.283310	0.220
INVEST	0.148372	0.341194	0.283627	0.274
ATV	**0.052284**	**0.003783**	0.024498	0.276
PART	**-0.033218**	**0.038258**	0.020569	0.410
PLN	0.017666	0.339170	0.001879	0.946
RENT	0.080938	0.695913	-0.173059	0.606
RTMA	**0.077326**	**0.086966**	-0.078253	0.548
Intercept	-1.223031	0.003595	0.161601	0.851
Adjusted R Squared	0.3341		0.07176	
Durbin Watson	1.944319		2.187068	
Breusch Pagan p-value	0.04469		0.3926	

Source: Prepared by the authors

In order to provide a better view of the hypothesis testing results, in Table 13 the resulting signals, attributing the n/s notation for non-significant results are presented.

Table 13 – Signals from the hypothesis testing results

Note: Results from tables 10 to 12, depending on the signal and statistical significance of the corresponding coefficients. We adopted the "n/s" description for non-significant coefficients.

Hypothesis	**Explanatory Variable**	**Results**					**Predicted Signal**
Dependent Variable		**NG_i**			**Voluntary Practices**		
		All	**Private**	**Government**	**Private**	**Government**	

H1 - Size	ATV	+	+	+	+	n/s	+
	PART	n/s	n/s	n/s	-	n/s	+
	PLN	n/s	n/s	n/s	n/s	n/s	+
H2 - Invested Funds	INV	n/s	+	n/s	n/s	n/s	+
H3 - Total Expenses	DESP	n/s	n/s	n/s	+	n/s	-
H4 - Outsourcing Expenses	DESPT	-	-	n/s	-	n/s	+
H5 - Financial Performance	RENT	n/s	n/s	n/s	n/s	n/s	+
	RTMA	+	n/s	n/s	+	n/s	+
H6 - Kind of Sponsorship	PAT	-					(*)

Results presented in Table 13 indicate a consistent positive and significant relationship between total asset size and the extent of governance practices, except for non-significant results regarding the relationship between total asset size and voluntary practices, regarding government sponsored entities. These results converge with Ammann and Zingg (2008) and Lima, Oliveira, Ponte and Rebouças (2016), being different from those reported by Tan and Cam's (2013) paper, in which there is no statistical significance regarding the relationship between asset size and voluntary disclosure of Australian PPFs' governance mechanisms.

The total number of participants from each PPF is negatively related to the extent of voluntary governance practices, but only regarding privately sponsored pension. This variable is non-statistically significant in all of the remaining tests. The relationship between the number of plans offered by the PPF and its NG_i is not significant. Overall, these results provide reasonable evidence regarding the positive effect of the PPF's size, particularly when measured by the PPF's asset size, on the fund's extent of governance practices.

The percentage of invested funds is positive and significantly related to the extent of governance practices, but only for privately sponsored funds, being non-significant otherwise. Contrary to hypothesis 3, total expenses are not positively and significantly related to the extent of PPF's governance practices. The only exception is the positive effect of total expenses on the adoption of voluntary practices of governance by privately sponsored PPFs, and this effect is in accordance with the predicted signal.

The hypothesis stating that a positive relationship exists between the extension of governance practices and the outsourcing of pension fund activities was formulated considering CGPC Resolution No. 13/2004, which provides that the governance mechanisms of closed entities should ensure the qualification of outsourced service providers. The results, however, show that the level of outsourced expenses has a negative and significant relationship with the extent of governance practices, with the exception being models for which regressions were only estimated for a sample of government sponsored PPFs.

The results reported in the previous paragraph, along with the negative signal (p-value of 0.06) of the PAT variable indicating that private PPFs have a lower level of NG_i, suggest that PPFs sponsored by private and government entities have a significantly different data generating process regarding the extent of their governance practices. Our results are different from those reported in Tan and Cam's (2013) paper, in which no relationship could be proven between the type of pension fund sponsorship, and the level of voluntary disclosure of Australian pension fund governance practices.

Overall, a consistently poor performance of explanatory variables on explaining the variance of the level of governance practices on PPFs sponsored by the Government is reported in Tables 11 and 12. There is a plausible possibility that this poor performance may be caused by considering that PPFs sponsored by federal and state governments are sufficiently similar to be classified as part of the group of publicly sponsored PPFs. In order to investigate further this possibility Table 11 and 12's regressions were re-estimated with the inclusion of a dummy variable that takes value 1 for all PPFs sponsored by entities controlled by the Federal Government. Results are presented in Table 14.

Table 14 – OLS Regression results - Adjusted Sample - By category of public sponsor

OLS regression parameter estimates, considering sample of publicly sponsored entities, are reported from the models:

$NG_{i} = \beta_0 + \beta_1 (ATV_i) + \beta_2 (PART_i) + \beta_3 (PLN_i) + \beta_4 (INV_i) + \beta_5 (DESP_i) + \beta_6 (DESPT_i) + \beta_7 (RENT_i) + \beta_8 (RTMA_i) + \beta_9 (PAT_i) + \beta_{10}(\text{Federal Sponsor}) + \varepsilon_{i;}$ and

$VoluntaryNG_{i} = \beta_0 + \beta_1 (ATV_i) + \beta_2 (PART_i) + \beta_3 (PLN_i) + \beta_4 (INV_i) + \beta_5 (DESP_i) + \beta_6 (DESPT_i) + \beta_7 (RENT_i) + \beta_8 (RTMA_i) + \beta_9 (PAT_i) + \beta_{10}(\text{Federal Sponsor}) + \varepsilon_{i..}$

Federal Sponsor is a dummy variable that takes the value of 1 when the sponsoring entity is related to the Brazilian Federal Government and zero otherwise. Variable definitions are contained in Table 4. Statistical significance represented by coefficients and p-values in bold font. Standard errors and t-values suppressed for brevity.

Dependent Variable:	NG_i		$VoluntaryNG_i$	
Observations:	44		44	
Variables	Coefficient	P-Value	Coefficient	P-Value
DESP	-1.305778	0.1065	**-2.2210151**	**0.0367**
DESPT	-0.212787	0.2430	**-0.5319634**	**0.0283**
INVEST	-0.170314	0.3994	0.0207717	0.9365
ATV	0.021555	0.2132	0.0043240	0.8456
PART	-0.001112	0.9510	0.0310821	0.1907
PLN	-0.012845	0.5224	0.0009024	0.9723
RENT	-0.077669	0.7494	-0.0520952	0.8687
RTMA	0.047560	0.6314	-0.1867634	0.1518
Federal_Sponsor	**0.080402**	**0.0295**	**0.1168702**	**0.0155**
Intercept	1.263408	0.1114	1.7214937	0.0950
Adjusted R Squared	0.1557		0.1977	
Durbin Watson	1.708803		1.991542	
Breusch Pagan p-value	0.6689		0.3926	

Source: Prepared by the authors

Interestingly, PPFs sponsored by Federal Government related entities have a greater extent of adopted mechanisms of governance than that of PPFs sponsored by state government related entities. Regarding Hypothesis H5, which predicted a positive relation between a PPF's financial performance, measured by its investment portfolio return (RENT) and returns above the minimum returns required by PREVIC (RTMA), mixed results were found. The null hypothesis of no effects regarding the return on investment (RENT) could not be rejected. It must be emphasized, though, that we only had access to data regarding the overall return on investment from each of the sample's PPF. The riskiness of the PPFs portfolio due to unavailable data could not be investigated. Measuring the effect of risk adjusted returns on the extent of a PPF's extent of governance practices is an important avenue for future research. RTMA is a statistically significant predictor of the extent of the PPF's governance practices only when the full sample is analysed, or when voluntary practices and privately sponsored PPFs are analysed.

There is a potentially endogenous relationship between the PPF's financial performance and the extent of its governance practices, indicating that the model could suffer from simultaneity bias. Theoretically, one cannot rule out the possibility that both constructs are jointly determined as a function of some specific characteristic of the PPF. Addressing this issue is an interesting possibility for future research, through an approach with instrumental variables, such as personal characteristics of the PPF's investment managers, which should be correlated with financial performance, but not necessarily correlated with the PPFs extent of governance practices.

Based on the results reported in this section, concluding remarks are presented in the following section.

8. CONCLUDING REMARKS

This paper analyses the explanatory factors of the extension of governance practices adopted by Brazilian Private Pension Funds. Through information disclosed in PPFs' websites, a governance score composed of 34 governance indicators was computed for each PPF. These indicators were based on the applicable legislation and the governance manual for closed entities issued by PREVIC. The governance score was submitted to evaluation and validation by professionals who work in the management and governance of Brazilian PPFs.

The level of adherence to governance practices of Brazilian pension funds was measured, indicating that Brazilian PPFs have a low average level of adherence to governance practices. PPFs of public sponsorship have a better level of adherence, when compared to PPFs of private sponsorship. One potential solution we hypothesize for improving the governance of both private and publicly sponsored private pension funds is turning voluntary practices into mandatory ones. Although adherence to mandatory practice is not complete, it will provide PREVIC with greater enforcement power, as that agency will be able to impose fees on PFs that fail to comply with mandatory practices.

Hypotheses tests summarized in Table 13 indicate that the size of the PPF's assets has a positive and mostly significant relationship with the level of adherence to the governance practices. However, the type of sponsorship and the usage of outsourced services have a negative relationship with the extent of governance practices. This result is puzzling, since Private Funds that are not directly involved on investment management should provide greater disclosure and adopt a higher level of governance in order to allow participants a better understanding of their risks and performances. Due to that, we believe that PPFs that outsource significant activities should be require to provide specific and detailed disclosure regarding this outsourcing.

Data analysis also suggests that privately sponsored PPFs and their publicly sponsored counterparts are significantly different within the Brazilian context. Explanatory factors regarding publicly sponsored PPFs explain poorly the variance of the extent of their governance practices (R-squared of 0.05512, compared to an R-squared of 0.2677 for privately sponsored pension funds).

Regarding the publicly sponsored PPFs in the sample, asset size is the only significant explanatory factor. However, after controlling for the type of public sponsor (either linked to the federal or state government), it was found: (i) that funds sponsored by federal government entities have a higher level of adherence to best governance practices, and (ii) size of total assets ceases to be a statistically significant variable, and the variables that measure the level of expenses and the percentage of outsourced expenses become negatively significant.

This research was constrained by the lack of a centralized public database containing governance, accounting, financial and other data regarding all Brazilian PPFs. The impossibility of collecting historical information on the governance of PPFs, in their respective electronic pages, did not allow us to conduct an analysis of their governance behavior for more than a single year, making it difficult to conduct panel data studies. In the same sense, we were not able to obtain detailed information about the composition and returns of the assets in the PPFs' investment portfolios, which would have allowed us to consider risk-adjusted returns as potential explanations of the level of governance.

Future studies could extend the sample in such a way as to cover a larger number of PPFs and reporting periods, allowing for panel data studies, covering longer periods of time and allowing a dynamic analysis of PPFs' behaviour. In addition, studies could be done that consider the identification of valid instrumental variables that are correlated with the financial performance of the funds, but not with the extension of the governance practices of the funds. This approach would allow for the study of the potential endogenous relationship between financial performance variables and the dependent variable.

We cannot theoretically rule out the possibility that the OECD's (Organisation for Economic Co-operation and Development, 2009) guidelines for fund governance are insufficient for the case of Brazilian Pension Funds. In this sense, an in depth analysis of pension funds on emerging markets that have been through demographic changes regarding ageing population, such as South Korea, could provide important insights regarding governance mechanisms suitable for this transition.

The low adherence to best practices of Governance by Brazilian PPFs is alarming, and it must be addressed by proper legislation and expanded action of the responsible regulatory agency. If there is no improvement in PPFs governance mechanisms and active monitoring by fund's participants, future retirees could face a difficult future, not being able to rely on their private pension money in order to meet their financial needs.

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APPENDIX A – SUMMARY STATISTICS REGARDING PUBLICLY SPONSORED PPFS' GOVERNANCE PRACTICES

(continues)

Code	Indicator	Nature	Average	Standard Deviation	Sum	N
1	Does the statute provide for the duties, composition, manner of access, duration and termination of the term of office of members of statutory bodies?	Mandatory	1.0000	0.0000	45	45
2	Does the PPF announce its electoral process for the vacancies of the deliberative and audit boards?	Voluntary	0.6667	0.4767	30	45
3	Does the PPF present the minimum criteria (qualification and suitability) for the eligibility for positions in statutory bodies?	Mandatory	0.8889	0.3178	40	45
4	Does the PPF disclose the other activities carried out by the directors in order to identify if they do not hold positions in other statutory bodies of the pension fund itself?	Mandatory	1.0000	0.0000	45	45
5	Does the PPF disclose the qualification of directors, officers and board members?	Voluntary	0.1778	0.3866	8	45
6	Does PPF demonstrate that it qualifies its directors, officers and employees periodically to keep them permanently up-to-date?	Voluntary	0.3556	0.4841	16	45
7	Are regular meetings scheduled for all statutory bodies?	Voluntary	0.5556	0.5025	25	45
8	Does the PPF have other technical advisory bodies in addition to those required by law (such as investment, risk, among others)?	Voluntary	0.7333	0.4472	33	45
9	Does The PPF have an Ethics Committee?	Voluntary	0.2000	0.4045	9	45
10	Does the PPF have any procedures that ensure that the qualifications and experience of outsourced contractors are adequate to their tasks, as well as, there is no conflict of interest?	Mandatory	0.3778	0.4903	17	45

11	Does the PPF have tools for monitoring and evaluating the performance of outsourced service providers?	Mandator y	0.3556	0.4841	16	45
12	Does the PPF disclose its statutes?	Mandator y	1.0000	0.0000	45	45
13	Does the PPF disclose its internal regulations?	Voluntary	0.1333	0.3438	6	45
14	Are there internal regiments containing the rules of functioning of the constituted boards?	Voluntary	0.1333	0.3438	6	45
15	Are there internal regiments containing the rules of functioning of the constituted committees?	Voluntary	0.0889	0.2878	4	45
16	Does the PPF adopt a Governance Manual?	Voluntary	0.3333	0.4767	15	45
17	Does the PPF have an ethics code?	Voluntary	0.8222	0.3866	37	45
18	Does the PPF disclose its process of identification, evaluation, control and monitoring of risks?	Mandator y	0.8000	0.4045	36	45

APPENDIX A – SUMMARY STATISTICS REGARDING PUBLICLY SPONSORED PPFS' GOVERNANCE PRACTICES

(conclusion)

Code	Indicator	Nature	Average	Standard Deviation	Sum	N
19	Does the PPF have an internal control body?	Voluntary	0.1333	0.3438	6	45
20	Is the internal controls body bound to statutory bodies?	Voluntary	0.1333	0.3438	6	45
21	Is there an internal audit department or function in the PPF?	Voluntary	0.2000	0.4045	9	45
22	Is the internal audit sector linked to the deliberative council?	Mandatory	0.0667	0.2523	3	45
23	Does the PPF disclose investment policies?	Mandatory	0.7556	0.4346	34	45
24	Does the PPF disclose relevant actuarial assumptions?	Mandatory	0.8889	0.3178	40	45
25	Are there communication channels that allow participants to access information regarding the PPF and its pension plans in an individualized way?	Voluntary	0.9333	0.2523	42	45
26	Has the PPF submitted its last annual report?	Mandatory	0.7111	0.4584	32	45
27	The date of issuance of the financial statements is before March 31 of the subsequent year?	Mandatory	0.9778	0.1491	44	45
28	Does the PPF have external auditors?	Mandatory	1.0000	0.0000	45	45
29	Does the PPF disclose the benefits plan regulation?	Mandatory	0.9333	0.2523	42	45
30	Is there disclosure of the person responsible for the applications of PPF resources?	Mandatory	0.6667	0.4767	30	45
31	Is there disclosure of the custodian of PPF resources?	Voluntary	0.4444	0.5025	20	45
32	Does the PPF provide the semi-annual report on internal controls issued by the audit board?	Mandatory	0.0444	0.2084	2	45

33	Does the PPF provide the conclusive opinion on the financial statements issued annually by the audit board?	Mandatory	0.9778	0.1491	44	45
34	The PPF adopts socio-environmental actions?	Voluntary	0.5778	0.4995	26	45

APPENDIX B – SUMMARY STATISTICS REGARDING PRIVATELY SPONSORED PPFS' GOVERNANCE PRACTICES

(continues)

Code	Indicator	Nature	Average	Standard Deviation	Sum	N
1	Does the statute provide for the duties, composition, manner of access, duration and termination of the term of office of members of statutory bodies?	Mandatory	0,938462	0,242186	61	65
2	Does the PPF announce its electoral process for the vacancies of the deliberative and audit boards?	Voluntary	0,430769	0,499038	28	65
3	Does the PPF present the minimum criteria (qualification and suitability) for the eligibility for positions in statutory bodies?	Mandatory	0,507692	0,503831	33	65
4	Does the PPF disclose the other activities carried out by the directors in order to identify if they do not hold positions in other statutory bodies of the pension fund itself?	Mandatory	0,861538	0,348072	56	65
5	Does the PPF disclose the qualification of directors, officers and board members?	Voluntary	0,030769	0,174036	2	65
6	Does PPF demonstrate that it qualifies its directors, officers and employees periodically to keep them permanently up-to-date?	Voluntary	0,138462	0,348072	9	65
7	Are regular meetings scheduled for all statutory bodies?	Voluntary	0,246154	0,434122	16	65
8	Does the PPF have other technical advisory bodies in addition to those required by law (such as investment, risk, among others)?	Voluntary	0,523077	0,503354	34	65
9	Does The PPF have an Ethics Committee?	Voluntary	0,092308	0,291712	6	65
10	Does the PPF have any procedures that ensure that the qualifications and experience of outsourced contractors are adequate to their tasks, as well	Mandatory	0,461538	0,502398	30	65

	as, there is no conflict of interest?					
11	Does the PPF have tools for monitoring and evaluating the performance of outsourced service providers?	Mandatory	0,307692	0,46513	20	65
12	Does the PPF disclose its statutes?	Mandatory	0,938462	0,242186	61	65
13	Does the PPF disclose its internal regulations?	Voluntary	0,138462	0,348072	9	65
14	Are there internal regiments containing the rules of functioning of the constituted boards?	Voluntary	0,046154	0,211451	3	65
15	Are there internal regiments containing the rules of functioning of the constituted committees?	Voluntary	0,030769	0,174036	2	65
16	Does the PPF adopt a Governance Manual?	Voluntary	0,292308	0,458362	19	65

APPENDIX B – SUMMARY STATISTICS REGARDING PRIVATELY SPONSORED PPFs' GOVERNANCE PRACTICES

(concludes)

Code	Indicator	Nature	Average	Standard Deviation	Sum	N
17	Does the PPF have an ethics code?	Voluntary	0,661538	0,476869	43	65
18	Does the PPF disclose its process of identification, evaluation, control and monitoring of risks?	Mandatory	0,784615	0,414288	51	65
19	Does the PPF have an internal control body?	Voluntary	0,092308	0,291712	6	65
20	Is the internal controls body bound to statutory bodies?	Voluntary	0,076923	0,268543	5	65
21	Is there an internal audit department or function in the PPF?	Voluntary	0,107692	0,312404	7	65
22	Is the internal audit sector linked to the deliberative council?	Mandatory	0,046154	0,211451	3	65
23	Does the PPF disclose investment policies?	Mandatory	0,784615	0,414288	51	65
24	Does the PPF disclose relevant actuarial assumptions?	Mandatory	0,846154	0,363609	55	65
25	Are there communication channels that allow participants to access information regarding the PPF and its pension plans in an individualized way?	Voluntary	0,938462	0,242186	61	65
26	Has the PPF submitted its last annual report?	Mandatory	0,769231	0,424604	50	65
27	The date of issuance of the financial statements is before March 31 of the subsequent year?	Mandatory	0,830769	0,377874	54	65
28	Does the PPF have external auditors?	Mandatory	0,846154	0,363609	55	65
29	Does the PPF disclose the benefits plan regulation?	Mandatory	0,861538	0,348072	56	65
30	Is there disclosure of the person responsible for the applications of PPF resources?	Mandatory	0,538462	0,502398	35	65
31	Is there disclosure of the custodian of PPF resources?	Voluntary	0,461538	0,502398	30	65
32	Does the PPF provide the semi-annual report on internal controls issued by the audit board?	Mandatory	0,061538	0,242186	4	65

33	Does the PPF provide the conclusive opinion on the financial statements issued annually by the audit board?	Mandatory	0,846154	0,363609	55	65
34	The PPF adopts socio-environmental actions?	Voluntary	0,492308	0,503831	32	65

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FAC010 **Impairment losses as a tool for ultimately conservative financial statements: Brazilian Evidence**

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ABSTRACT:
In this paper, we analyze the determinants of the recognition of impairment losses by Brazilian firms. The Brazilian context is particularly interesting given that most (56%) of the observations in our sample between 2010 and 2015 presented firms with two years of market-to-book ratio lower than one, an indicator of market expectations of impairment losses. Despite this low market-to-book state, we observe the recognition of impairment losses in only 57 out of 1,118 firm-year observations, a puzzling result. The main hypothesis we test in our study, using Tobit regressions and fractional response models, is that firms presenting a market-to-book ratio below one for an extended period of time are more likely to recognize an impairment loss. Results found in our sample, comprised by 230 firms, indicate a positive statistical association between the presence of persistently low market-to-book ratios and the recognition of impairment losses. That statistical association, however, seems to fail to translate into impairment recognition at levels consistent with market expectations. We discuss and present suggestions of future research regarding possible explanations to the low frequency of recognition of impairment losses by Brazilian firms.

Key words: Impairment; IFRS; Conservatism; market-to-book ratio

1. INTRODUCTION

No asset should be reported in an entity's financial reports when its outstanding value is estimated to be unrecoverable through sale or usage (IFRS). Under the rules set by IAS 36 – Impairment of Assets, reporting entities must constantly monitor the recoverable value of their assets. While firms are required to disclose information on impairment tests, early evidence after the adoption of IFRS in 2010 shows that Brazilian firms fail to disclose complete information on impairment tests (Uliano et al. 2014; Mazzioni et al. 2014).

Due to the low level of impairment disclosure practiced by Brazilian publicly traded companies, market participants are not able to directly observe estimates made by firms on the recoverable value of their assets. Nonetheless, the market value of firms could provide an indirect aggregate estimate of their net recoverable amount. In this sense, we consider the market-to-book ratio as a potential impairment indicator, inspired by Ramanna and Watts' (2012) assertive that the market expects impairment losses on firms with book-to-market ratios higher than one for a period of at least two consecutive years.

The current Brazilian stock market provides a rich environment for testing how accounting information can absorb or ignore information available on high verifiability states. Some of the largest Brazilian publicly traded companies have been persistently showing market-to-book ratios lower than one. In contrast to the report from Oler (2015), according to whom 19% of the firm-quarter observations between 1990 and 2010 presented low market-to-book ratios, our sample from Brazilian firms from 2010 to 2015 has around 61% of firms with one year of market-to-book ratio lower than one. When our cutoff for persistency is increased to two, and three years, the percentage of firm-years with persistently low market-to-book ratios fluctuates respectively to 56%, 58%.

Our main hypothesis is that firms that present a market-to-book ratio below one for an extended period of time are more likely to recognize an impairment loss. Results found in a sample of 1,120 firm-years, comprised by 230 unique firms, are favorable to this hypothesis in terms of statistical significance. However, there are only 57 observations in which a given firm has recognized an impairment loss. Our analysis of the Brazilian context might contribute to the literature on the effects of IFRS adoption, as our results suggest that the learning curve for the adoption of impairment rules may be slow one.

Based on the premise that market prices aggregate investor's opinions on the company's future cash flows, we argue that a persistent market cap lower than the company's book value presents a verifiable and reliable estimate of fair value of the company's net assets. This logic is similar to that presented by Danielson and Press (2003) and Oler (2015), as both papers consider a book-to-market higher than one as a signal of lack of conservatism. Under accounting conservatism, impairment tests should follow persistently low market-to-book ratios, correcting net asset's reporting value to reflect negative information already assimilated by the markets.

Considering a similar premise, Choi (2008) found that a significant portion of write-offs under US GAAP was not recorded in a timely manner. Hence, market prices over the years preceding a write-off takes into account any decline in asset value reflected later in the write-off amount. Ji (2013) presents evidence from the Australian context. Through examining the timing of goodwill impairment decisions of Australian companies during the period 2007 to 2009, the author reports that a non-trivial number of firms did not impair goodwill as called for under the standard governing asset impairment.

Our results indicate a positive association between the presence of persistently low market-to-book ratios and the recognition of impairment losses, indicating that firms' behavior is responsive to market information. However, under a low market to book scenario, firms with a proportion of fixed assets higher than 30% of their total assets are less likely to recognize an impairment loss. The evidence on the role played by firms' leverage and payout levels on the recognition of impairment losses is not consistent under our different specifications, indicating that these recognitions may not be strongly affected by contracting and agency problems.

2. HYPOTHESES DEVELOPMENT

Under Basu's (1997) interpretation of conservatism, earnings reflects bad news more quickly than good news. Unrealized losses are typically recognized earlier than unrealized gains, resulting on systematic differences between bad news and good news periods in the timeliness and persistence of earnings. Watts (2003b) defines conservatism as the differential verifiability required for recognition of profits versus losses.

Following the work of Ball and Brown (1968), positive capital markets research has been using changes in security prices as tool to infer whether information in accounting reports is useful to market participants (Kothari, 2001). Kothari (2001) states that a temporal association between current financial performance and future cash flows, as well as a contemporaneous association between financial performance and security prices or price changes is expected. We argue that there is no strict causal relation implied in this expected temporal association. Thus, market prices could affect financial reporting as well as financial reporting can affect market prices. Market prices, specially under high efficiency settings (low concerns on illiquidity or asymmetric information) can provide a strong cue to managers when their assets are overvalued.

Ball, Kothari, and Nikolaev (2013a) provide a clear explanation of the Basu (1997) model. They state that in an efficient market, stock returns reflect all new public information, being then a valid proxy for economic shocks to value. A segmented regression of accounting income on fiscal-period stock return is fitted, and the incremental coefficient on negative return is taken as a valid measure of asymmetrically timely loss recognition. The primary result reported by (Ball et al. 2013a) is that the Basu regression provides valid estimates of conditional conservatism from a econometrics standpoint, identifying conditional conservatism when it is present.

Beaver and Ryan (2005) separate conservatism in two facets. Under unconditional conservatism, the book value of equity is persistently understated as a consequence of predetermined aspects of the accounting process. Basu's (1997) conservatism falls under Beaver and Ryan's (2005) conditional conservatism, according to which book value is written down under sufficiently adverse circumstances, such as bad news, but not up under favorable circumstances, such as good news. This concept of conditional conservatism establishes a relationship between financial reporting behavior and real economic income (measured through stock returns) (Ball et al. 2013b).

The timely recognition of asset write-offs, which are expected to be anticipated by markets, can be considered a form of conditional conservatism. Ins this sense, motivated by anecdotal evidence showing that managers have plenty of discretion to manage the timing of write-offs to take action related to earnings management, Choi (2008) investigates and obtains results suggesting that write-offs are recorded in a less timely manner than other components of earnings.

Watts and Zuo's (2016) emphasize that conservatism in accounting does not suggest historical cost measurement over fair value measurement, since for market prices of Level 1 inputs, the recognition of both gains and losses into income statement in a timely manner is a desirable procedure. The forcing of timely asset write downs and the disallowing of unverifiable write-ups are still present under the IFRS Conceptual Framework. One should note, that although explicitly removed from the IFRS's Conceptual Framework for financial reporting, there are several reporting practices that are still fully consistent with accounting conservatism. Examples are the asymmetric treatment of contingent assets and liabilities (IAS 37), the need for impairment testing regarding PP&E (IAS 36) and the net recoverable amount rule applicable to the reporting of inventories (IAS 2).

Concordantly, Abdel-Khalik (2010), claims that the accounting debate is usually framed in terms of making a choice between fair value and historical cost, but this is not a correct framing of the issues, since knowledge of fair value alone is not sufficient to help investors to evaluate stewardship. Under extreme fair value accounting, Abdel-Khalik (2010) argues that investors would not know, how much resources the management had sacrificed to obtain that fair value, emphasizing the importance of an adequate reliance on both sources of measurement methods.

Banker, Basu, and Byzalov (2014) argue and report empirical confirmation to the notion that earnings exhibits asymmetric timeliness with respect to multiple signals, including stock return, sales change, and operating cash flow change. This signals differentially explain write-downs of current assets, long-lived tangible assets, and infinite-lived goodwill. The authors also find that impairment is triggered by extreme bad news, and the implicit cutoffs for recognizing bad news vary predictably across both signals and asset types.

The persistent empirical verification that some of the largest Brazilian publicly traded companies present book values of equity that are higher than their market capitalization seems to indicate that the level of unconditional conservatism is low in this companies. Alternatively, the untimely recognition of bad news in the form of impairment losses is a form of conditional conservatism.

Du, Li, and Xu (2014) state that US accounting rules given by FAS 157, FAS 157-3 and FAS 157-4, specify the circumstances where firms need to adjust valuation inputs to fair value measurements in response to changes in market conditions. The authors emphasize that such an adjustment is subject to a significant degree of management judgment and discretion. The same. We emphasize that a reasonably similar level of management discretion is also allowed under IFRS, through IAS 36 – Impairment of assets. In this sense, Knauer and Wöhrmann (2015) did not find significant differences between capital markets effects deriving from write-down announcements under SFAS 142 and IAS 36.

Watts and Zuo (2016) state that for difficult-to-verify information, such as fair value estimates based on Level 2 or Level 3 inputs, conservatism requires a higher verifiability threshold for gains than for losses, and hence a lower of amortized cost or fair value model (similar to the lower of cost or market model for inventories) seems more appropriate. If the market is efficient in valuing stocks of the Brazilian largest companies, market capitalization could be taken as a proxy for level 1 inputs for the valuation of the company's assets. Considering that level 1 inputs are hierarchically referable, these companies market capitalization should imply an upper bound for the company book value of equity.

Oler (2015) considers that firms with persistently high book-to-market ratios, mathematically equivalent to low market-to-book ratios present an anomaly, probably due to aggressive accounting practices. Based on the above discussion, we start by formulating hypothesis on factors that are potential explanatory variables regarding the probability of a given company recognizing an impairment loss. Our first two hypotheses are presented as follows (in alternative form):

H1. Firms that have market-to-book ratios lower than one should be more likely to recognize an impairment loss than firms with market-to-book ratios higher than one, ceteris paribus.

H2. Changes of state from higher than one to lower than one market-to-book ratios should result in an increased probability of recognizing an impairment loss, ceteris paribus.

The existence of conservatism is explained by the extant literature mostly on contracting considerations, taxes, shareholder litigation risk, political process and regulatory forces (Basu, 1997; Watts, 2003b; Lu & Trabels, 2013). The evidence reported by Watts (2003a) suggests the contracting and shareholder litigation explanations are the most relevant, although effects of taxation and regulation play a smaller role. Due to that, a possible explanation for persisting lower than one market-to-book ratios could be managers' resistance to reduce asset values and consequently reducing their collateral. Accordingly, our second hypothesis is stated as follows (in alternative form):

H3. The leverage level of the firms that have market-to-book ratios lower than one should be negatively related to their probability of recognizing an impairment loss, ceteris paribus.

Herrmann, Saudagaran, and Thomas (2006) argue that fair value measures for property, plant, and equipment are superior to historical cost based on the characteristics of predictive value, feedback value, timeliness, neutrality, representational faithfulness, comparability, and consistency. The authors recognize that verifiability appears to be the sole qualitative characteristic favoring historical cost over fair value, but still, argue that the United States could learn from the practices already established in other countries and in International Financial Reporting Standards by reconsidering fair value measures for property, plant, and equipment.

Considering the superiority of fair value measures when it comes to reporting outstanding values of long term assets, we propose the following hypothesis (in alternate form):

H4. When their market-to-book ratio is lower than one, firms with a higher portion of non-current assets, such as fixed and intangible assets, should be more likely to recognize an impairment loss, ceteris paribus.

Lev and Gu (2016) claim that both the "fair" values assets and liabilities, and the consequent impairment expenses are often based on estimates that are hard to audit and easy to manipulate. The authors claim that information disclosed on an incomplete fashion, without providing investors with information about the reliability of the estimates (confidence intervals), and their impact on sales and earnings, only results on increased information noise.

Lev and Gu's (2016) argument, impairment estimates on companies with less volatile earnings are expected to be more likely to reflect economic impairment losses, due to their higher level of verifiability. Thus, we present the following hypotheses (in alternate form):

H5. Firms with a lower level of earnings volatility and persistently lower than one market-to-book ratio should present an increased probability of recognizing an impairment loss, ceteris paribus.

Szczesny and Valentincic (2013) analyzed private firms, and reported evidence that such firms make the decision to write off, and write off more in terms of total amount, when they are: (i) more profitable, (ii) have more financial debt, and (iii) pay dividends. In their opinion, asset write-offs as viewed as corrections of departures of book values from their underlying economic values, resulting on a potential adjustment on the stream of dividends to shareholders. Even though their study is based on private firms, we understand that firms that pay more dividends would be economically better by reporting asset write-offs, reducing current levels of dividends and smoothing future dividends (due to effects such as reduced depreciation expense). Hence, we state the following hypothesis (in alternate form):

H6. Firms with a higher level of payout are more likely to report an impairment loss, ceteris paribus.

Trottier (2013) asserts that, since IAS No. 36 permits an impairment loss on a long-lived asset to be reversed if the economic value of the asset recovers, permitting reversals significantly increases the likelihood that a manager will record the impairment, especially if the manager has a bonus plan, due to his disutility from a bonus forgone should the value of the asset recovers but accounting rules prohibit him from reversing the loss. That would be the case of goodwill-related impairment losses.

Based on this effect, we make an additional prediction, that firms with significant goodwill amounts will be less likely to recognize an impairment loss when they have variable compensation schemes, regardless of the existence of a persistently low market-to-book ratio. This hypothesis is defined in the following alternate form:

H7. When their market-to-book ratio is lower than one, firms with a larger amount of goodwill in their assets will be less likely to recognize an impairment loss, ceteris paribus.

3. RESEARCH DESIGN

To test our hypotheses, we use a sample of firm-years with available data between 2010 (the first year of full IFRS adoption in Brazil) and 2015, We require financial data from Standardized Financial Statements available at CVM (Brazilian Securities and Exchange Commission) and at Economática System. We exclude firms in the financial services industries because of their different operating, financial and wealth generating structures. We also exclude companies with negative shareholders' equity on the previous year (for which market-to-book ratios are negative), companies with return on assets below -100% and above 100%, and companies with assets lower than one hundred thousand Brazilian Real. With these exclusion criteria, we exclude both firms that are likely to be in near-bankruptcy state and firms that experienced significant changes on their return on assets' generating processes. In our final sample, there are 1118 firm-years, with 230 unique Brazilian firms with stocks traded at the BM&FBOVESPA.

Generally, our hypotheses concern the existence of a persistently low market-to-book ratio. Hence, we test our hypotheses through a dummy variables approach. In our main specification, the dummy variable of interest takes the value 1 when the company has a market-to-book ratio lower than one for the two calendar years, and zero otherwise, following Ramanna and Watts (2012). For robustness, we run our models and report results with one and three calendar years as a cutoff for a persistent impairment indicator. On untabulated results, the algorithm for maximum likelihood estimation did not converge when we experimentally tested a four-year cutoff period, resulting in coefficients that could not be interpreted or taken for inference purposes. This result may be due to a smaller number of observations, given the larger cutoff period for defining the persistently low market to book ratio, and due to lack of variability in data. Nonetheless, given that Brazilian firms are part of a highly volatile environment, we ponder whether a four-year period may be considered a too long period for the purpose of our investigation. This question remains unanswered.

Banker, Basu, and Byzalov (2014) argue and report empirical confirmation to the notion that earnings exhibits asymmetric timeliness with respect to multiple signals, including stock return, sales change, and operating cash flow change. Banker, Basu, and Byzalov (2016), based in Basu's (1997) asymmetric timeliness model, modified the original model through the inclusion of changes in sales and operating cash flows, and the substitution of the dependent variable, earnings scaled by the beginning of year market value of the entity, by asset write-downs. The authors predicted and confirmed empirically a complex chain of interactions between indicators of changes in sales and operating cash flows. We take the variables in Banker, Basu, and Byzalov's (2016) including those from Riedl (2004), which are practicable to our analysis of Brazilian data, as control variables in order to build our model. These variables are presented in table 1.

Table 1 – Definition of Control Variables

Variable	Definition and data items
$RET_{i,t}$	= stock return for the 12-month period of fiscal year *t*;
$DR_{i,t}$	= dummy variable that equals 1 if stock return RET_t is negative. zero otherwise;
$\Delta CF_{i,t}$	= change in operating cash flow from year *t*–1 to year *t*, scaled by total assets at the beginning of the year;
$DC_{i,t}$	= dummy variable that equals 1 if cash flow change ΔCF_t is negative, zero otherwise;
$\Delta SALES_{i,t}$	= change in sales from year *t*–1 to year *t*, scaled by total assets at the beginning of the year;
$DS_{i,t}$	= dummy variable that equals 1 if sales change $\Delta SALES_t$ is negative, zero otherwise;

$\Delta E_{i,t}$	= change in pre-writedown earnings in year *t*, scaled by total assets at the beginning of the year;
$DE_{i,t}$	= dummy variable that equals 1 if $\Delta E_t < 0$, zero otherwise;
ΔGDP_t	= GDP growth in year t;
$\Delta INDROA_{i,t}$	= change in median industry ROA for the industry of the firm in year *t*;
$BATH_{i,t}$	= ΔE_t if ΔE_t is below the median of the negative tail of ΔE_t, zero otherwise;
$SMOOTH_{i,t}$	= ΔE_t if ΔE_t is above the median of the positive tail of ΔE_t, zero otherwise;
$Liquidity_{i,t}$	= Liquidity of the stock *i* on year *t, as previously detailed*.

Given that the Brazilian stock market is significantly smaller than the American stock market, and that there is significant variance on the Brazilian Companies market capitalization, we also included stock liquidity as a control variable. This inclusion was operationalized through the exchange liquidity index, provided on the Economática System, and calculated as follows:

ExchangeLiquidity = 100 * p/P * sqrt(n/N * v/V)

where:

p = number of days on which there was at least one trade with the share within the chosen period

P = total number of days in the chosen period

n = number of trades with the share within the chosen period

N = number of trades with all shares within the chosen period

v = volume in cash regarding the share within the chosen period

V = cash volume regarding all shares within the chosen period

As in Banker, Basu, and Byzalov's (2016), we consider interactions between control variables $\Delta CF_{i,t}$ and $DC_{i,t}$, $\Delta SALES_{i,t}$ and $DS_{i,t}$, and $\Delta E_{i,t}$ and $DE_{i,t}$. These interactions should capture the asymmetric timeliness of bad news, measured as negative variation on cash flows, sales and pre-impairment earnings.

Results reported by Wrubel, Marassi, and Klann (2015) regarding the Brazilian market show that changes in cash flow, revenue and debt, and income smoothing practices (Smooth) do determine the recognition of impairment losses. We analyze the Brazilian context regarding the recognition of an impairment loss through Tobit Regressions. The choice of this approach is similar to (Riedl 2004), and considers that in our full sample of 1118 observations, an impairment loss was recognized only on only 57 observations, resulting on a sample censored at zero.

Considering that our sample covers the period after the adoption of IFRS in Brazil, including calendar years from 2010 to 2015, we must consider that the probability of $firm_i$ recognizing an impairment loss on $year_t$ may be related to the same probability in the $year_{t-1}$. This probability arises because of characteristics that are firm-specific. Thus, our Tobit regression were also estimated with panel data characteristics, following (Tobin 1958) and (Woolridge 2010).

We present the definition of our variables of interest in Table 2. Our model is defined in the form or Eq.1., and includes log of total assets as an additional variable of interst, as this varable is not considered in Banker, Basu, and Byzalov's (2016). Since we first estimate a set of Tobit regressions, subsequently we estimate a set of unbalanced Panel Data Random Effects

Tobit Model, and finally we estimate GLM models, the error structure regarding the term $v_{i,t}$ is dependent on the model being estimated.

$$\text{Impairment}_{i,t}=\beta_0 + \beta_1\left(\text{Persistent Impairment Indicator}_{i,t}\right)+\beta_2\left(\text{D\_State\_Chg}_{i,t}\right)+\beta_3\left(\textit{Log of total assets}_{i,t}\right)+\beta_4\left(\text{Leverage}_{i,t}\right)+$$
$$\beta_5\left(\text{Leverage}_{i,t}\right)\text{x}\left(\text{Persistent Impairment Indicator}_{i,t}\right)+\beta_6\left(\text{Earnings volatility}_{i,t}\right)+$$
$$\beta_7\left(\text{Earnings volatility}_{i,t}\right)\text{x}\left(\text{Persistent Impairment Indicator}_{i,t}\right)+$$
$$\beta_8\left(\text{Fixed assets dummy}_{i,t}\right)+\beta_9\left(\text{Fixed assets dummy}_{i,t}\right)\text{x}\left(\text{Persistent Impairment Indicator}_{i,t}\right)+$$
$$\beta_{10}\left(\text{Goodwill dummy}_{i,t}\right)+\beta_{11}\left(\text{Goodwill dummy}_{i,t}\right)\ \text{x}\left(\text{Persistent Impairment Indicator}_{i,t}\right)+\beta_{12}\left(\text{Payout}_{i,t}\right)+\sum_{k=1}^{13}\{\gamma_k \text{Control}_{k,i,t}\}+v_{i,t}$$

(Eq. 1)

Table 2 – Variable definition

Variable	Definition
Dependent Variable	
$\text{Impairment}_{i,t}$	impairment loss of firm $_i$ on year $_t$ scaled by total assets on year $_{t-1}$
Independent Variables	
$\text{Persistent Impairment Indicator}_{i,t}$	dummy variable that equals 1 if market to book ratio is lower than one in the last one to three calendar years;
$\text{D\_State\_Chg}_{i,t}$	dummy variable that equals 1 the company i changed from a Market-to-book ratio greater than one to a ratio lower than one
$\text{Leverage}_{i,t}$	leverage of the company $_i$ on year $_t$;
$\text{Log of total assets}_{i,t}$	total assets of firm $_i$ on year $_{t-1}$
$\text{Fixed assets dummy}_{i,t}$	dummy variable that equals 1 if the firm has a percentage of fixed assets in excess of 30% of its total assets. zero otherwise;
$\text{Earnings volatility}_{i,t}$	volatility of the firm is quarterly earnings in the past two calendar years
$\text{Payout}_{i,t}$	payout of the firm I in the year t, calculated from the firm Statement of Cash Flows
$\text{Goodwill dummy}_{i,t}$	dummy variable that equals 1 if the firm has a percentage of goodwill assets in excess of 10% of its total assets. zero otherwise;
$\text{Controls}_{k\ i,t}$	Control variables from table 1

Summary statistics for the Dependent and all of the numeric explanatory variables are presented in Table 3. The $\text{Impairment}_{i,t}$ variable has a mean close to its minimum, reflecting the small number of observations with impairment losses. Considering only the 57 observations in which an impairment loss was recognized, $\text{Impairment}_{i,t}$ has a mean value of 0.03 with standard deviation of 0.06 and a maximum value of 0.43.

Table 3 – Summary Statistics of the dependent variable and numeric explanatory variables

Statistic	N	Mean	St. Dev.	Min	Max
$Impairment_{i,t}$	1,118	.0017726	.0166378	0	.4392326
Log of total $assets_{i,t}$	1,118	15.0304	15.17945	11.70378	20.49181
$Payout_{i,t}$	1,118	-.6832428	3.863771	-86.04489	11.41567
$Earnings\_Vol_{i,t}$	1,118	.0172918	.0263015	.0004274	.4400728
$LEV_{i,t}$	1,118	.9072663	9.207466	-199.7381	218.2164
$RET_{i,t}$	1,118	-.1405531	.507568	-3.264293	3.454244
$\Delta CF_{i,t}$	1,118	.0045677	.0786399	-.4630538	.4575791
$\Delta SALES_{i,t}$	1,118	.0693884	.1663262	-1.028247	1.556462
$\Delta E_{i,t}$	1,118	-.0020298	.070426	-.5248144	.6907132
$\Delta INDROA_{i,t}$	1,118	-.8007062	4.105744	-41.9446	32.58654
$\Delta GDP_{i,t}$	1,118	.015	.0438455	-.06	.07
$Liquidity_{i,t}$	1,118	.3355396	.8273929	0	8.66541

Finally, we present in Table 4 the correlation matrix regarding the Dependent and all of the numeric explanatory variables, indicating that no pair of variables has correlation coefficient suggesting multicollinearity issues. $Impairment_{i,t}$ is correlated with many of the numeric explanatory variables considered in our models, suggesting that there is a statistically significant association between these variables, to be analyzed in depth in the next session.

Table 4 – Correlation Matrix

	1	2	3	4	5	6
Impairment$_{i,t}$	1.00					
Log of total assets$_{i,t}$	0.07*	1.00				
Payout$_{i,t}$	-0.01	-0.10***	1.00			
Earnings _Vol$_{i,t}$	0.10***	-0.20***	0.00	1.00		
LEV$_{i,t}$						
RET$_{i,t}$	-0.01	-0.00	0.00	-0.00	1.00	
Δ*CF*$_{i,t}$	-0.13***	-0.03	0.04	-0.04	-0.02	1.00
Δ*SALES*$_{i,t}$	0.12***	0.07*	0.01	0.02	0.00	0.06
Δ*E*$_{i,t}$	-0.00	0.02	0.03	-0.01	0.01	0.30***
Δ*INDROA*$_{i,t}$	-0.25***	-0.06*	-0.03	0.15***	-0.03	0.33***
ΔGDP$_{i,t}$	-0.26***	-0.01	-0.06	0.03	-0.00	0.19***
Liquidity$_{i,t}$	-0.05	-0.05	0.01	-0.04	-0.05	0.27***
Impairment$_{i,t}$	0.12***	0.57***	-0.10**	-0.05	-0.01	-0.01

	7	8	9	10	11	12
Impairment$_{i,t}$						
Log of total assets$_{i,t}$						
Payout$_{i,t}$						
Earnings _Vol$_{i,t}$						
LEV$_{i,t}$						
RET$_{i,t}$						
Δ*CF*$_{i,t}$						
Δ*SALES*$_{i,t}$	1.00					
Δ*E*$_{i,t}$	0.05	1.00				
Δ*INDROA*$_{i,t}$	0.17***	0.27***	1.00			
ΔGDP$_{i,t}$	0.13***	0.16***	0.55***	1.00		
Liquidity$_{i,t}$	-0.03	0.17***	0.13***	0.13***	1.00	
Impairment$_{i,t}$	0.05	0.02	-0.01	-0.03	0.01	1.00

* p<0.05, ** p<0.01, *** p<0.001

4. RESULTS

In Table 5, we present the results of our first set of Tobit regressions based on Eq.1. Through models (1) to (3), we estimate Tobit Regressions considering 1 to 3 calendar years as a cutoff for the definition of the Persistent Impairment Indicator$_{i,t}$ variable. The same cutoff was considered on determining the value of the variable D_State_Chg$_{i,t}$. The constant term is omitted for brevity. Regarding model (1), one might ponder that a market-to-book ratio lower than one for one year is not a sufficient sign of impairment for firms to consider. However, since there is no clear theoretical reason to rule out periods of one year, we report within our results the corresponding regression results for these cutoffs.

Table 5 - Tobit Models - Dependent Variable = $Impairment_{i,t}$

	(1)		(2)		(3)	
Persistent Impairment $Indicator_{i,t}$	0.07743	(0.05637)	**0.11530***	**(0.05406)**	**0.19051****	**(0.06691)**
$D\_State\_Chg_{i,t}$	-0.00131	(0.01419)	0.00038	(0.01406)	-0.00289	(0.01625)
Log of total $assets_{i,t}$	0.00015	(0.00418)	-0.00034	(0.00424)	-0.00130	(0.00498)
$Payout_{i,t}$	-0.00072	(0.00077)	-0.00061	(0.00077)	-0.00081	(0.00074)
Earnings $volatility_{i,t}$	-2.11647+	(1.25783)	-0.04236	(0.89920)	1.27088	(0.94618)
$Leverage_{i,t}$	-0.01157	(0.00984)	-0.00068	(0.00135)	-0.00005	(0.00173)
Fixed assets $dummy_{i,t}$	0.03603	(0.03786)	**0.06467+**	**(0.03548)**	**0.07651+**	(0.04579)
Goodwill $dummy_{i,t}$	0.07399	(0.06392)	0.06796	(0.06210)	0.11200+	(0.06511)
Earnings $Volatility_{i,t}$ x Persistent Impairment $Indicator_{i,t}$	1.12954+	(0.65835)	-0.01628	(0.55172)	-1.03936	(0.78650)
$Leverage_{i,t}$ x Persistent Impairment $Indicator_{i,t}$	0.00574	(0.00493)	0.00033	(0.00081)	-0.00020	(0.00140)
Fixed assets $dummy_{i,t}$ x Persistent Impairment $Indicator_{i,t}$	-0.03371	(0.02259)	**-0.05145***	**(0.02241)**	**-0.08574***	(0.03772)
Goodwill $dummy_{i,t}$ x Persistent Impairment $Indicator_{i,t}$	-0.03648	(0.03910)	-0.03086	(0.03863)	-0.06539	(0.04382)
sigma						
Constant	0.06571***	(0.00698)	0.06669***	(0.00706)	0.06215***	(0.00739)
AIC	142.91977		144.15952		105.23492	
BIC	298.51797		299.11332		254.17797	
pseudo r2	0.598		0.587		0.749	
Log likelihood	-40.460		-41.080		-21.617	
chi2	120.315		116.752		128.956	
Observations	1118		1095		902	

Standard errors in parentheses. Control variables omitted for brevity.
+ p<0.1 * p<0.05, ** p<0.01, *** p<0.001

Our main interest lies on the coefficients of the variables that indicate a state with a higher impairment loss probability, including their interaction with other variables. As shown in Table 5, the variable Persistent Impairment $Indicator_{i,t}$ has statistically significant coefficients whether we consider two or three calendar years of persistently low market to book ratios. Both on models (2) and (3), Persistent Impairment $Indicator_{i,t}$ is a positive predictor of an impairment loss. Contrary to our theoretical expectations, the change of state, represented by $D\_State\_Chg_{i,t}$, which measures the effect when a given firm enters a state of persistently low market to book ratio, is not statistically significant in any of our Tobit Regressions.

The interaction terms Earnings $Volatility_{i,t}$ x Persistent Impairment $Indicator_{i,t}$, $Leverage_{i,t}$ x Persistent Impairment $Indicator_{i,t}$, and Goodwill $dummy_{i,t}$ x Persistent Impairment $Indicator_{i,t}$ are not statistically significant, indicating the rejection of the H_3, H_4 and H_7 hypotheses. Contrary to our theoretical expectation, the interaction term Fixed assets $dummy_{i,t}$ x Persistent Impairment $Indicator_{i,t}$ although statistically significant, has a negative signal, indicating that that firms with a higher percentage of fixed assets (more than 30% of its total assets) are less likely to record an impairment loss. This result is somehow similar to that reported by (Oler 2015), in which asset specialization increases the length of time a firm's BTM ratio is above one.

Regarding the control variables, it is worth commenting that the variables $Liquidity_{i,t}$, $RET_{i,t}$ and $RET_{i,t}$ x $DR_{i,t}$ behaves consistently as expected on all of the Tobit Regressions. Negative stock returns are a statistically significant predictor of impairment losses at the 1% level, indicating accounting conservatism. The variable $\Delta INDROA_{i,t}$ is also statistically significant for models (2) e and (3), indicating that a negative shock to the industry's returns on assets increases firms' recognition of impairment losses.

Since we have 6 years of data for 62% of sample firms, the characteristics of our dataset lead us to an unbalanced panel dataset. With this dataset, we estimate Random Effects Tobit Models though Stata's (StataCorp 2015) "xttobit" function, which is able to handle unbalanced panels. Firms with less than 6 years of data arise mostly because of the exclusion criteria adopted herein. Firm-years in which the shareholders' equity of the previous year became negative, with missing market value or extreme ROA were excluded from our sample.

In Table 6, we report the results of our second of Tobit regressions based on Eq.1, this time with a panel data treatment. Through models (4) to (6), we estimate Random Effects Tobit Regressions considering respectively 1 to 3 calendar years as a cutoff for the definition of a persistently low market to boo ratio (Persistent Impairment $Indicator_{i,t}$). The same cutoff was considered on determining the value of the variable $D\_State\_Chg_{i,t}$, repeating the procedure adopted on models (1) to (3). The Constant and sigma terms are omitted for brevity.

Results reported in table 6 show no statistical significance for Persistent Impairment $Indicator_{i,t}$ (although the coefficient's p-value for the 3-year cutoff specification is close to 0.05). The variable $D\_State\_Chg_{i,t}$, however, is significant for the 3-year cutoff specification. Our interactions terms of interest are not statistically significant with the exception of Earnings $Volatility_{i,t}$ x Persistent Impairment $Indicator_{i,t}$ and $Leverage_{i,t}$ x Persistent Impairment $Indicator_{i,t}$. Both interaction variables, however, are only significant for the1-year cutoff period.

Table 6 – Random Effects Tobit Models - Dependent Variable = Impairment$_{i,t}$

	(4)		(5)		(6)	
Persistent Impairment Indicator$_{i,t}$	-0.00940	(0.04440)	-0.03340	(0.04902)	0.09783^{+}	(0.05305)
D_State_Chg$_{i,t}$	-0.01163	(0.00875)	-0.01853^{+}	(0.00957)	**-0.01693***	**(0.00752)**
Log of total assets$_{i,t}$	0.00598	(0.00456)	0.00777	(0.00551)	**0.01085***	**(0.00505)**
Payout$_{i,t}$	**-0.00067***	**(0.00034)**	**-0.00078***	**(0.00037)**	-0.00026	(0.00032)
Earnings volatility$_{i,t}$	**-1.93852****	**(0.65692)**	-0.88456	(0.80183)	**1.74144***	**(0.77380)**
Leverage$_{i,t}$	**-0.01397****	**(0.00474)**	-0.00157^{+}	(0.00094)	**-0.00121***	**(0.00058)**
Fixed assets dummy$_{i,t}$	0.01578	(0.03113)	0.04949^{+}	(0.02917)	0.03009	(0.03622)
Goodwill dummy$_{i,t}$	-0.05395	(0.04651)	**-0.14484***	**(0.06001)**	0.08628	(0.07937)
Earnings Volatility$_{i,t}$ x Persistent Impairment Indicator$_{i,t}$	**1.12325****	**(0.36419)**	0.53872	(0.47904)	-1.10094^{+}	(0.58374)
Leverage$_{i,t}$ x Persistent Impairment Indicator$_{i,t}$	**0.00691****	**(0.00238)**	0.00082	(0.00057)	0.00067^{+}	(0.00037)
Fixed assets dummy$_{i,t}$ x Persistent Impairment Indicator$_{i,t}$	-0.01079	(0.01784)	-0.03079^{+}	(0.01773)	-0.03146	(0.02214)
Goodwill dummy$_{i,t}$ x Persistent Impairment Indicator$_{i,t}$	0.01578	(0.03388)	0.07560^{+}	(0.04185)	-0.03656	(0.04433)
sigma_u						
Constant	0.07166***	(0.00647)	0.07525***	(0.00781)	0.08188***	(0.01077)
sigma_e						
Constant	0.01897***	(0.00220)	0.02065***	(0.00249)	0.01237***	(0.00226)
AIC	-8.89126		1.15036		-2.19953	
BIC	151.72623		161.10267		151.54813	
Log likelihood	36.446		31.425		33.100	
chi2	127.325		118.066		83.913	
p value	0.000		0.000		0.000	
Observations	1118		1095		902	

Standard errors in parentheses. Control variables omitted for brevity.
$^{+}$ p<0.1 * p<0.05, ** p<0.01, *** p<0.001

Although the results presented in Tables 5 and 6 show a mixed response to market indicators of impairment, measured through the persistently low market to book ratio, one must take these results with caution. An analysis of the residuals from models presented in both tables shows that these residuals are not normally distributed, which could impair the ability of making statistical inferences about the coefficients. Nonetheless, given the size of our sample, we expect the estimators to be approximately asymptotically efficient.

We must emphasize that the recent econometrics literature presents an increased critique of the usage of Tobit Models for analyzing dependent variables that are limited from below and above (see Papke & Wooldridge, 2008;Gallani & Wooldridge, 2015). Given that our dependent variable, being scaled by total assets, represent a fraction of a firm's total assets, in order to provide additional evidence regarding the object of our research, we also run Generalized Linear Models with a Logit link. This kind of model is defined by Papke and Wooldridge (2008) as a Fractional Response Model, adequate for dealing with the possible shortcomings of Tobit models for fractional data. Results for the GLM estimations are presented in table 7. Through models (7) to (9), we estimate GLM regressions considering respectively 1 to 3 calendar years as a cutoff for the definition of a persistently low market to boo ratio (Persistent Impairment $\text{Indicator}_{i,t}$). The same cutoff was considered on determining the value of the variable $\text{D\_State\_Chg}_{i,t}$. The constant and sigma terms are omitted for brevity.

Through the specifications in table 7, we report statistical significance of the Persistent Impairment $\text{Indicator}_{i,t}$ variable in all of the persistency cutoffs, with the expected signal. In accordance with the results from tables 5 and 6, results from table 7 suggest that a persistently low market to book ratio is associated with the recognition of impairment losses. The same statistical significance in all cutoffs is observed for the Fixed assets $\text{dummy}_{i,t}$ x Persistent Impairment $\text{Indicator}_{i,t}$ interaction variable. Again, results indicate that firms with a percentage of fixed assets higher than 30% of their total assets are less likely to recognize an impairment loss. Untabulated results with a lagged variables approach for the construction of the dummy variable Persistent Impairment $\text{Indicator}_{i,t}$ suggest the same association between a persistently low market to book ratio and the recognition of impairment losses.

Table 7 – GLM Models (link=LOGIT). Dependent Variable = $\text{Impairment}_{i,t}$

	(7)		(8)		(9)	
Persistent Impairment $\text{Indicator}_{i,t}$	**4.36303***	**(1.73036)**	**5.69151****	**(1.89416)**	**6.20908****	**(2.35820)**
$\text{D\_State\_Chg}_{i,t}$	**-0.75117^{+}**	(0.41364)	-0.24919	(0.54905)	-0.35767	(0.67277)
Log of total $\text{assets}_{i,t}$	**-0.27432****	**(0.10360)**	**-0.30494****	**(0.11657)**	**-0.28078***	**(0.12494)**
$\text{Payout}_{i,t}$	**-0.02143***	**(0.00955)**	-0.01617	(0.01042)	-0.01620	(0.01285)
Earnings $\text{volatility}_{i,t}$	**-53.69965^{+}**	**(30.70174)**	-21.28059	(35.03145)	9.67594	(44.62232)
$\text{Leverage}_{i,t}$	0.06171	(0.16564)	-0.00104	(0.04468)	0.00531	(0.04593)
Fixed assets $\text{dummy}_{i,t}$	**1.99387***	**(0.93920)**	**2.73676****	**(1.06030)**	**2.12626^{+}**	**(1.17831)**
Goodwill $\text{dummy}_{i,t}$	**3.76012****	**(1.45158)**	**3.88571***	**(1.53833)**	**4.54194***	**(1.91003)**
Earnings $\text{Volatility}_{i,t}$ x Persistent Impairment $\text{Indicator}_{i,t}$	22.98102	(14.65407)	0.09736	(20.17904)	-22.49821	(26.29854)
$\text{Leverage}_{i,t}$ x Persistent Impairment $\text{Indicator}_{i,t}$	-0.03386	(0.08272)	-0.00226	(0.02256)	-0.00691	(0.02320)
Fixed assets $\text{dummy}_{i,t}$ x Persistent Impairment $\text{Indicator}_{i,t}$	**-1.92032****	**(0.64110)**	**-2.49966****	**(0.79698)**	**-2.39531***	**(0.95749)**
Goodwill $\text{dummy}_{i,t}$ x Persistent Impairment $\text{Indicator}_{i,t}$	**-1.91845^{+}**	**(1.09730)**	**-1.94316^{+}**	**(1.12942)**	**-2.52948^{+}**	**(1.48256)**
AIC	75.83307		75.78927		73.20054	
BIC	226.41197		225.74456		217.33898	
Log likelihood	-7.917		-7.895		-6.600	
chi2	1626.602		2104.201		1876.793	
Observations	1118		1095		902	

Standard errors in parentheses. Control variables omitted for brevity.

$^{+}$ $p<0.1$ * $p<0.05$, ** $p<0.01$, *** $p<0.001$

Our other interactions terms of interest are not statistically significant with the exception of Fixed assets dummy$_{i,\ t}$ x Persistent Impairment Indicator$_{i,\ t}$ interaction variable, which is significant and negatively associated with the recognition of impairment losses only for models (7) to (9). This negative relation, also observed on our Tobit and Random Effects Tobit is contrary to our theoretical expectation. Firms with a higher percentage of fixed assets are expected to be more likely to recognize impairment losses due to the fact of the superior quality of fair value measures when it comes to reporting outstanding values of long term assets as indicated by the extant literature.

5. CONCLUSION

The persistent observation of Brazilian firms with low market-to-book ratios contrasted with the low frequency of impairment losses recognition is puzzling. As of December 31st, 2015, more than 50% of the publicly traded companies in our sample have market-to-book ratio lower than one. Among these companies, 72% have market-to-book ratios of 0.6 or lower. Although our study is performed on a large number of firm-year observations, our sample do suffer from a small number of impairment recognizing firms. The fact that the literature on fractional response models is still under development provides an even greater challenge to the interpretation of our results. Despite these caveats, our results show a statistically significant relation between the persistent impairment indicator (low market-to-book ratio) and the recognition of impairment losses.

IFRS commands that, whenever there is any indication that an impairment loss has occurred, an impairment test should be carried out, and a loss should be recognized when the assets are no longer recoverable. When the market price of a firm is lower than its book value of shareholders' equity, the market indicates that assets are no longer recoverable at their accounting outstanding value. Firms with a book value of assets in excess to their market value can be considered as examples of lack of accounting conservatism. Watts and Zuo (2016), in their historical account of the development of the accounting profession, argue that accounting conservatism is a critical information control and governance mechanism that should be reintroduced explicitly by standard setters into the Conceptual Framework for financial reporting.

Our results are supportive of the claim that Brazilian firms do not adopt conservative accounting behavior regarding the impairment of their assets. Some of our sample firms recognize impairment losses when their market-to-book ratios remain persistently low. However, in 61% of our firm-year observations, firms do not recognize impairment losses contrary to market expectations. In terms of statistical significance, however, the conservatism found in our sample is similar to that reported by Banker, Basu, and Byzalov (2014) with a sample of American firms, in which earnings exhibit asymmetric timeliness with respect to multiple signals, including stock return, sales change, and operating cash flow change. Why Brazilian firms collectively fail to recognize impairment losses in such scenario is an interesting question still to be addressed by future research.

As the period of IFRS adoption in Brazil grows, we will be able to collect further data in order to increase the number of observations in which a firm has effectively recognized an impairment loss. We expect an increase in sample size to result in a significant increase of the explanatory power of econometric tests. In addition to that possibility, researchers will be able to test whether the lack of impairment puzzle can be attributed to a difficult learning curve faced by Brazilian firms. The impairment related policies of these firms could also be compared with the corresponding policies of firms from other IFRS countries, in order to investigate the role played by different institutional settings in the phenomenon we observe in Brazil.

The widespread presence of the low market-to-book ratio firms in the Brazilian stock market may indicate that firms are not conservative enough regarding their impairment-related practices. We believe that there is a fertile avenue for future research on the level of disclosure of impairment tests, its methodology, and its subjectivity. In this sense, firms with low market-to-book ratio should consider providing detailed and convincing disclosure of the reason their net assets are stated by amounts not supported by the market view of the firms' future cash flows. An approach with multiple case-studies, including the analysis of the disclosure of impairment tests of firms on variable states of their market-to-book ratio should contribute further to the understanding of the complex phenomenon of impairment losses.

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FAC014 IFRS 16 LEASES – A SIGNIFICANT CHANGE FOR LESSEES OR "MUCH ADO ABOUT NOTHING"?

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ABSTRACT:

The new international accounting standard on leases, International Financial Reporting Standard (IFRS) number 16 (IFRS 16), effective from 1 January 2019, will cause most lease arrangements to be accounted for on the face of the balance sheet (also referred to as the face of the statement of financial position) of lessees. Former operating leases (leases not accounted for on the balance sheet) will be capitalised by recognizing a right-of-use (ROU) asset and a corresponding lease liability. As a result, the annual financial statements (AFS) of some lessees will differ materially in their qualitative and quantitative characteristics. This future change, particularly the need to recognise a lease liability on-balance sheet and the related (perhaps unintended) consequences thereof, has created a fair amount of anxiety amongst lessees. This paper explores whether these changes are fundamental or rather a case simply of alternate disclosure with no material change for lessees.

Key words:
IFRS 16, lease accounting, lessee, on-balance sheet, unintended consequence.

INTRODUCTION

Leasing is an economic transaction that has been used since the early 1900's and formed one of the fundamental pillars of the related accounting transactions (Miller and Upton, 1976).

The concept of leasing makes economic sense (Werden, 2005). When an entity requires the use of an asset or a resource, the entity need not be forced into purchasing the asset outright, but rather gaining right to use the asset for a particular period in exchange for a payment. This would have potential working capital advantages too and serves as a mechanism for an entity to manage, potentially, its cash flows more efficiently.

Since September 1982, lease accounting governed by International Accounting Standards (IAS) 17 (International Accounting Standards Board (IASB), 2015) required both lessors (the legal owner of the asset), and the lessee (the party making payments) to distinguish between whether the lease was an operating or a finance lease (Branswijck et al., 2011).

The accounting standard did not focus primarily on what an operating lease is, but rather defined an operating lease as a lease other than a finance lease.

The standard then went into a significant amount of detail giving examples of what indicators could suggest the existence of a finance lease. The more prominent indicators were as follows:

1. The lease transfers ownership of the asset to the lessee by the end of the lease term.
2. The lessee has the option to purchase the asset at a price that is expected to be sufficiently lower than fair value at the date the option becomes exercisable that, at the inception of the lease, it is reasonably certain that the option will be exercised.
3. The lease term is for the major part of the economic life of the asset, even if title is not transferred.
4. At the inception of the lease, the present value of the minimum lease payments amounts to at least substantially all of the fair value of the leased asset.
5. The leased assets are of a specialised nature such that only the lessee can use them without major modifications being made (IASB, 2015, para 10).

The rationale being that if one could not reasonably conclude that the lease transaction was a finance lease, it was by default an operating lease.

While the distinguishing characteristics as described above were not inherently controversial, the difference between the accounting thereof was very material.

A finance lease was defined as a lease whereby the significant risks and rewards of ownership had passed from the lessor to the lessee (IASB, 2015, para 4). Thus, from an accounting perspective, the lessee would recognise a leased asset on its balance sheet, as well as a corresponding liability. The leased asset would be accounted for using the same principles as that of an owned asset requiring only separate disclosure from that of owned assets. A depreciation charge would be allocated against the carrying value of that asset resulting in a decrease to net profit. The corresponding lease liability would be reduced by payments made against it and increased by interest charged on it, also resulting in a decrease to net profit.

Finance lease accounting was sometimes referred to as accounting for the substance of the transaction, rather than its legal form (Baker and Hayes, 2004). The legal form being a pure rental agreement; whereas the substance of the transaction was the financing of the asset by way of an interest-bearing loan. This concept was widely understood and accepted (Lantto and Sahlström, 2009).

By inference, the operating lease was accounted for in a completely different way. Since it was defined as a lease that is not a finance lease, the substance of the transaction was the antithesis of the above and hence rather took the form of a pure rental agreement. Thus no leased asset was raised, and consequently no corresponding liability. The theory was quite simple, since no risks and rewards had deemed to pass to the lessee, no asset was deemed necessary to raise, and if no asset was raised, then no corresponding liability could be raised either (Imhoff Jr et al., 1991).

To this end, for an operating lease, the only related disclosure the AFS would contain was the effect that the lease had on the income statement, being either a lease rental expense from the lessee's perspective or a lease rental income from the lessor's. An interesting update to IAS 17 transpired in 2005 where the IASB introduced a requirement to straight-line the lease income and lease expense in the case of an operating lease. This resulted in effectively an average lease income or lease expense being disclosed in the AFS (Mey, 2016).

As a result of this, the impact on the balance sheet was limited to the potential of having either a short-term asset or liability, resulting from the difference between the actual amount received or paid (cash flow) versus the amount of income or expense recognized in the income statement (accounting consequence). If indeed such a short-term asset or liability arose, a resultant deferred tax asset or liability would have been raised thereon.

The only other evidence of the operating lease transaction was disclosed in a note to the AFS. From the lessee's perspective this note was known as a lease commitment note. The disclosure requirements for this note were limited to showing the remaining payments that the lessee had contractually committed to, split between the present value of the commitment and the future finance charges that were at that point not yet accrued. While this was a disclosure requirement, it did not form part of the liabilities presented on the face of the balance sheet. Hence, the lease commitment note only provided information to the user - it did not agree to a specific liability balance or balances that were represented on the face of the balance sheet (refer to the section that discusses the additional consequences for lessees on adoption of IFRS 16 for further discussion).

Effectively then, operating leases were accounted for off-balance sheet. In 2016, somewhat of a bombshell was dropped in the world of lease accounting that would radically change the way leases would be accounted for and disclosed by the lessee. The IASB repealed IAS 17 and replaced it with a new accounting standard for leases, IFRS 16. No more would lessees be allowed to use the indicators outlined above as a reference and select whether leases were finance or operating. No more would lessees be given the option of recording leases off-balance sheet.

IFRS 16 requires all leases to be recorded as finance leases from the lessee's perspective. All lessees are required to recognise an asset known as a ROU asset, with a corresponding liability on their balance sheets. The liability is measured as the present value of the future lease payments discounted at the rate applicable to the contract applying the effective interest rate method. This would imply a dramatic change to key ratios determined with reference to the amounts presented in the AFS of lessees. Users of the AFS may not fully understand the reasons for these changes. It may also require a change to information technology (IT) systems to accommodate capitalised lease accounting. IT and accounting staff may need to be retrained. IFRS 16, much ado about nothing?

The purpose of this study is to identify the various consequences of the new lease accounting standard, in particular for lessees, whether intended by the IASB or not, and to explore the possible impact thereof. The research questions to be addressed are 'What are the main consequences of the new leases standard for lessees?' and 'What impact will they have on the preparers and users of AFS?' The value of this study is that it focuses on a current topic, being the future of lessee accounting. It highlights some of the main consequences for lessees and provides an opinion as to whether the resultant impact on lessees will be fundamental or not.

THEORETICAL FRAMEWORK: UNINTENDED CONSEQUENCES OF REGULATORY DEVELOPMENTS

There is a vast amount of literature that provides examples of regulatory developments having unintended consequences. For example (Vakkur et al., 2010) examine the impact of the Sarbanes Oxley Act (2002) (SOX) which was intended to improve the control environment at organisations and promote greater certainty in capital markets (Maroun, 2012). Related literature suggests that SOX has resulted in an inflexible environment focusing on rules-based rather than conceptual compliance based and has inadvertently resulted in a decrease in the value of firms (Maroun, 2012).

In examining a financial reporting environment, the introduction of monitoring bodies that are aimed at ensuring certain quality reporting levels does not always result in an improved quality of reporting (Maroun, 2015).

In the case of the SOX, the inflexible rules-based approach followed by SOX, coupled with sanctions for non-compliance, has led to a decline in the value of firms. Similarly, the introduction of quality inspections by the Public Company Accounting Oversight Board (PCAOB) aimed at improving the quality of external audit (PCAOB, 2007) has had unintended consequences for the quality of corporate reporting. Each case highlights how reforms, 'not well informed by and well-grounded' in 'professional practice and the wide array of factors' influencing and shaping regulatory domains 'run the risk of producing unintended and potentially dysfunctional consequences' (Humphrey et al., 2011, p. 443), (Segal and Maroun, 2014)

In a taxation context, laws and regulations implemented by authorities to eliminate anti-avoidance transfer pricing schemes have often been unsuccessful and have instead added increased complexity and costs to the tax system both locally and internationally (Stiglingh, 2011). The unintended result of these increased taxation compliance implementations is an increased administrative responsibility on the taxpayer, which is often a smaller business without the sufficient resources and capability to manage the increased financial expenditure (Maroun, 2015).

Reflecting on auditing-specific areas, a further example is that the quality reviews by the Public Company Accounting Oversight Board (PCAOB) which is designed to improve the reliability and standards of external audits has resulted in unintended consequences for the quality of audit reporting (Maroun et al., 2014). This has occurred through the increased time taken to complete the audit of financial statements and, as a result, preliminary results have been released by companies prior to the actual audit work being completed and this has resulted in a decrease in the dependability of these preliminary results (Segal and Maroun, 2014). (Humphrey et al., 2011) has also noted that even though there are increased regulations continually being implemented in the audit profession there is minimal actual effect on the quality of the audit being performed (Parker et al., 2008), (Power, 1994). What has resulted is that the increased attempts at regulating the non-audit services performed, partner rotation and audit reporting requirements have not always resulted in the desired effects that were expected (Maroun, 2015).

The situations highlighted above reflect how legislation and changes which have not been well grounded in professional practice 'run the risk of producing unintended and potentially dysfunctional consequences' (Humphrey et al., 2011). The aim of this literature review is not to provide a complete analysis of the problematic aspects of the introduction of new auditing legislation. What is important to appreciate is that rarely are proposed regulatory developments free from unintended consequences (Segal and Maroun, 2014).

This study used a content analysis of IFRS 16 itself, the comment letters received by the IASB whilst drafting the new standard, the IASB's own analysis of the effects of IFRS 16 and prior academic literature on lease accounting to explore the impact of the new standard. Further information was gathered by attending the 2016 Panel discussion on the new leases standard at the South African Institute of Chartered Accountants (SAICA).

THE INHERENT WEAKNESSES OF THE LESSEE ACCOUNTING PRESCRIBED BY IAS 17

Sir David Tweedie, a former member of the IASB, delivered a historical speech in Australia in August 2002, in which he told the audience that he could guarantee that most of them had never flown on an aircraft that was shown on the airline's balance sheet. He described the lease accounting requirements of IAS 17 (and those applicable in the United States of America, the United Kingdom and Australia at that time) as "[…] perfectly harmonized worldwide […] but absolutely useless." (Beckman, 2016).

His speech highlighted the inherent weaknesses of IAS 17, specifically the operating lease accounting model as it applied to lessees. Why would an airline company not recognize arguably its most significant operating assets (i.e. its aircrafts) on its balance sheet? The answer is that most airlines finance their aircrafts via lease arrangements. Instead of purchasing aircrafts outright, airlines typically enter into long-term lease arrangements with aircraft manufacturers. These leased aircrafts have remained off-balance sheet where the arrangement was classified as an operating lease using the indicators in IAS 17. Sir David Tweedie did not believe that the resultant disclosure in the AFS was useful to the users thereof. The users would not see any aircraft assets on the balance sheet, nor would they see any liabilities for future lease payments.

His speech also alluded to another weakness of IAS 17, being the opportunity to structure lease arrangements in order to keep the leased assets and the corresponding liabilities off-balance sheet. A well-known issue was that lessees frequently structured contracts for leased assets, in situations where they enjoyed benefits similar to outright ownership, in a way that kept both the leased assets and related liabilities off their books. This method of accounting created off-balance sheet financing and was called operating lease accounting (Frecka, 2008).

Operating lease accounting was achieved by ensuring that some or all of the finance lease indicators within IAS 17 were not met. This was possible because as the name suggests, the standard contained indicators, not absolute criteria, which would lead one to classify a lease as a finance lease. For example, one of the indicators of a finance lease was that ownership of the asset would transfer to the lessee by the end of the lease term. Lease arrangements could be structured to ensure that legal ownership remained with the lessor. From the lessee’s perspective, this would generally not pose an issue since they were enjoying the right of use of the asset during the lease term anyway. However, this type of structuring undermined the objective of IAS 17 which was to classify leases as either operating or finance leases depending on the substance of the arrangement rather than the legal form (IASB, 2015, para 10).

Subsequently it became apparent that the other IASB members also had concerns over the lessee accounting model as they embarked on a project to overhaul IAS 17. This ultimately resulted in the new standard for lease accounting, IFRS 16, being published in January 2016.

In the introduction to IFRS 16, the IASB provides reasons for issuing the new standard. It notes how the previous lease accounting model was criticised for failing to meet the needs of users of financial statements because it did not always provide a faithful representation of leasing transactions. In particular, it did not require lessees to recognise assets and liabilities arising from operating leases (IASB, 2016c, Introduction, para 5). The IASB explains that the new approach to lease accounting requires a lessee to recognise (account for) assets and liabilities for the rights and obligations created by leases. The IASB believes this approach will result in a more faithful representation of a lessee's assets and liabilities (IASB, 2016c, Introduction, para 6).

Under IFRS 16, lessees will not classify their lease arrangements as either operating or finance leases. Instead, all leases will be treated as finance leases (excluding short-term leases and leases of low value items). At the inception of a lease arrangement, the lessee will recognize a ROU asset and a corresponding lease liability on its balance sheet (IASB, 2016c, Introduction, para 10). The ROU asset will subsequently be treated like any other owned asset – as the economic benefits embodied in it are consumed, it will be depreciated. Similarly, the liability will be treated like a long-term loan. The loan will grow with interest charges and will reduce each time a lease payment is made.

ADDITIONAL CONSEQUENCES FOR LESSEES ON ADOPTION OF IFRS 16

Whilst the IASB will achieve its goal of requiring lessees to recognise a ROU asset and a corresponding lease liability on their balance sheets for most long-term lessees (IASB, 2016c, Introduction, para 6), the additional, perhaps unintended, consequences may detract from its achievement. Even before the new standard was released, many organisations and professionals expressed their concerns over the proposed changes. In this regard, the IASB received over 600 comment letters in response to the Lease Exposure Draft (ED) it published in May 2013. The ED preceded IFRS 16 and it set out the IASB's proposed changes to lease accounting. Although the final lease accounting standard is somewhat different to what the IASB proposed in the ED, the fundamental principle of lessees recognizing leases on-balance sheet remains unchanged.

One of the significant concerns raised in response to the ED was that of cost versus benefit. Many respondents questioned whether the perceived benefits of the new lease accounting would really exceed the costs of implementing it (IASB and FASB, 2013). Lessees may incur significant costs when they transition from the old accounting standard, IAS 17, to the new accounting standard. This is discussed in more detail below.

SAICA gathered feedback on the ED from various Chartered Accountants. One of the concerns noted related specifically to the banking industry; banks were particularly concerned with the impact the new lease accounting would have on the regulatory requirements of banks (SAICA, 2013).

Banks are heavily regulated due to the nature of their business (Levine, 2004). A key service that banks offer is the safe-keeping of customers' money. By keeping cash on hand, customers are at risk of loss, for example due to theft. With banks, customers don't need to keep large amounts of cash on hand; transactions can be handled with cheques, debit cards or credit cards, instead. When a bank takes a deposit from a customer, it becomes a debtor of the customer. This is because the customer can generally withdraw all or part of the cash deposited at any time. However, due to the nature of the business that banks conduct, a bank's position is somewhat different to that of a normal debtor. The cash deposited into a bank account becomes the property of the bank and bank has a right to use the money as it likes. The bank is not bound to inform the customer the manner of utilisation of the cash deposited by him. For example, the bank may use the cash to provide a loan to another customer or to pay its own expenses. The bank also does not give any security to the customer as a normal debtor would. For these and other reasons, it is necessary to regulate the activities of banks.

From a South African regulatory perspective, banks are required to comply with Basel III. Basel III is a comprehensive set of measures, developed by the Basel Committee on Banking Supervision, to strengthen the regulation, supervision and risk management of the banking sector. Basel III imposes certain capital and liquidity requirements on banks aimed at improving a bank's ability to absorb shocks arising from financial and economic stress (Bank of International Settlements (BIS), 2017). One of these requirements is the liquidity coverage ratio which requires banks to have sufficient high-quality liquid assets to withstand a 30-day stressed funding scenario (BIS, 2017). Where a bank is a lessee, although it will recognize both an asset and liability in respect of the lease on its balance sheet, the impact on the liquidity coverage ratio is potentially detrimental. Since ROU assets will be long-term in nature, they are expected to be categorised under Basel III as other assets as opposed to liquid assets. The corresponding lease liabilities will increase the bank's total liabilities, resulting in a reserving requirement of 2.5% of the balance, as well as a liquid asset requirement of 5% of the balance (SAICA, 2013). In summary, the recognition of additional lease liabilities on-balance sheet will require banks to have additional liquid assets on-balance sheet, however, the ROU assets will not count as liquid assets. The result of additional debt on-balance sheet without the corresponding increase in liquid assets will place more pressure on the bank's ratios. It is doubtful that this was the intention of the standard, but never the less the result is an unintended consequence.

The new lease accounting standard may also have other consequences for lessees, each of which is discussed in more detail below.

Key financial ratios may be affected

Lessees with a significant number of long-term leases, and specifically lessees who historically classified those leases as operating leases under IAS 17, will see an impact on some of their key financial ratios.

Financial ratios are generally determined by reference to the amounts published in an entity's annual financial statements (AFS). For example, a financial ratio may be determined taking an entity's assets, liabilities, equity or a combination of these amounts into consideration. Other financial ratios may take an entity's income or expense amounts into consideration. Entities that use IFRS as the framework for accounting, will comply with the principles of IFRS (including IFRS 16 when it is effective) in determining the amounts that are presented in their AFS. As such, the changes to lessee accounting will impact certain financial ratios of lessees. This is a concern to many lessees as financial ratios are used by various stakeholders to measure an entity's performance, future prospects and even its credit worthiness. Stakeholders ultimately use these financial ratios to assist them in making decisions regarding an entity, for example, whether to invest in the entity or whether to lend money to the entity.

There is a significant amount of literature related to the impact on financial ratios. This is partly because the IASB officially started its project to develop a new approach to lessee accounting as early as 2006. The IASB embarked on this project jointly with the Financial Accounting Standards Board (FASB) which the accounting standard setter in the United States of America. In addition, literature prior to 2006 exists where the impact of lessees classifying their leases as either operating or financing leases is analysed. Several studies have been conducted to evaluate the potential impact of including operating leases on the balance sheet by recognizing an asset and a liability – similar to the approach under IFRS 16.

Another sector, for which the effect of the new standard may have a significant effect, is that of the retail sector. (Goodacre, 2003) conducted a study of 102 United Kingdom (UK) retail companies. It is common practice for retail companies to enter into property lease arrangements for their retail outlets. This is typically because retailers don't have the finance available to buy each and every property where their outlets are situated. Under the accounting standards adopted by the 102 companies at the time, the majority of their property leases were classified as operating leases. As such, no related assets or liabilities were recognised on their balance sheets for the leased properties. The study applied the constructive capitalization method (CC method) to estimate the effect of recognizing assets and liabilities on-balance sheet for all property leases classified as operating leases. This method is widely used (by analysts for example) to capitalize off-balance sheet debt, such as operating leases, onto the balance sheet. The CC method (Imhoff Jr et al., 1991; Imhoff Jr et al., 1997) consists of incorporating in the balance sheet the present value of the discounted future payments derived from operating lease contracts. After applying the CC method, the study provided evidence of a significant impact on key financial ratios including gearing, profit margin, return on assets (ROA), return on equity (ROE), interest coverage and asset turnover ratios.

Mulford and Gram (Mulford and Gram, 2007) focused on retail companies in the United States of America (US). The CC method was also applied to 19 US companies and found evidence of an increase in Earnings before interest, tax, depreciation and amortization (EBITDA) and a decrease in ROA and ROE. However, as explained elsewhere in this paper, the earnings after depreciation and interest would most likely decrease substantially due to the depreciation charged against the ROU asset as well as interest raised on the finance lease liability; both of which would not have existed under IAS 17.

More recently, (Chambers et al., 2015) analysed the potential impact of the accounting proposed in the ED on the financial ratios of lessees. They found that the initial recognition of leased assets and liabilities on the balance sheet will not only increase assets and liabilities but will also increase debt ratios, EBITDA, and interest expense while decreasing net income. The article goes on to discuss how the change in such ratios could have a ripple effect on stakeholders such as lenders and employees.

Following the release of IFRS 16, the IASB itself released a document entitled "Effects Analysis, IFRS 16 *Leases*". In this document, the IASB describes the likely costs and benefits of IFRS 16, including the effect on key financial statement amounts and ratios of lessees. The IASB mentions that it gained insight on the likely effects through its consultation with various stakeholders throughout the project on leases. What this illustrates is that the full impact of the new lease accounting standard was not known at the start of the project. There was a clear goal – for lease assets and liabilities to be recognised on the balance sheets of lessees – but the additional consequences became clearer over the project period. The Effects Analysis notes that for leases previously classified as operating leases, the IASB expects significant changes in some financial ratios (IASB, 2016a). This was further discussed by one IASB member, Darrel Scott, at the SAICA Panel Discussion held in August 2016. It can be noted, that the changes below are to an extent speculative as the standard is in its infancy and has not yet been tested practically due to the fact that entities have not yet produced a set of annual financial statements under IFRS 16. The changes expected by the IASB include those summarised in Table I below:

Table I: Changes to financial amounts and ratios			
A	**B**	**C**	**D**
Financial amount/ratio	**What it measures**	**Common method of calculation**	**Expected effect of IFRS 16**
Leverage	Solvency	Liabilities/Equity	Increase (Note 1)
Asset turnover	Profitability	Sales/Assets	Decrease (Note 2)
Interest expense	Profitability	Not applicable	Increase (Note 3)
Depreciation expense	Profitability	Not applicable	Increase (Note 4)
Rent expense	Profitability	Not applicable	Decrease (Note 5)
EBITDA[58]	Profitability	Refer name	Increase (Note 6)
EBITDAR[59]	Profitability	Refer name	No Change (Note 7)

Notes:
Column A lists amounts presented in a lessee's AFS that may change as a result of IFRS 16. This column also lists financial ratios that are calculated using the AFS amounts that may be impacted. Column B explains what the amounts/financial ratios in Column A are typically indicative of when analysing the status of a lessee. Column C explains how the amounts/financial ratios are commonly calculated by users of the AFS. Column D indicates how the IASB expects the amounts/financial ratios to change. The notes below provide explanations of why the amounts/financial ratio are expected to change or not to change.
Note 1: Liabilities will increase due to the recognition of additional lease liabilities. Generally, there will be no initial impact on equity because while the lease liabilities cause equity to decrease, the lease assets will cause equity to increase.
Note 2: Sales (or revenue) will not be impacted. Assets will increase due to the recognition of lease assets.
Note 3: The additional lease liabilities will give rise to an increased interest expense. The lease liabilities will be measured using the amortised cost basis of accounting which takes the time value of money into account. The initial lease liability will increase over the lease term with interest and decrease as lease payments are made by the lessee.
Note 4: The additional ROU assets will give rise to an increased depreciation expense. The ROU assets will be treated in the same manner as owned assets in that they will be consumed/ depreciated as they are used. The consumption of the economic benefits embodied in the ROU assets will be recognised within depreciation expense.
Note 5: Rental expense will no longer be recognised in respect of most long-term leases. Instead, lessees will recognize interest expense on the lease liabilities and depreciation on the ROU assets.
Note 6: Under the old IAS 17 lease accounting, this ratio would have been determined taking rental expense for all operating leases into account. This means the EBITDA would have been reduced by the rental expense recognised. Under the new IFRS 16 accounting, this ratio will increase since no rental expenses will be recognised for long-term leases.
Note 7: There will be no change to this ratio because all lease-related expenses (i.e. interest expense, depreciation and rent expense) are excluded from the financial ratio.

[58] Earnings before interest, tax, depreciation and amortisation
[59] Earnings before interest, tax, depreciation, amortisation and rent expense

As previously mentioned, financial ratios are used by various stakeholders to assist in their decision-making. It is therefore not surprising that lessees are concerned about the impact the new accounting standard will have on their reported financial statements amounts and resulting ratios. The following paragraphs explore how the decisions of lenders and analysts may be impacted.

Lenders

Lenders, such as banks, expose themselves to risk when they lend money to customers. A significant risk is credit risk which is the risk that a customer may not be able to repay the loan (IASB, 2016b, Appendix A) and that the lender may lose the principal of the loan and/or the interest associated with it. Credit risk arises because customers expect to use future cash flows to pay current debts. The generation of future cash flows, however, cannot be guaranteed. It's almost never possible to ensure that customers will definitely have the funds to repay their debts. Lenders charge customers interest on the principal amount of the loan, not only as compensation for the time value of money, but also as compensation for the credit risk assumed (Altamuro et al., 2014).

Interest represents the income that lenders earn on loans issued. To this end, lenders, like any other entities operating a business for profit, seek to maximize the income they earn from issuing loans. As such, they will charge a customer a higher interest rate if they believe the customer exposes them to a higher credit risk. Similarly, a customer with a lower credit risk will be charged a lower interest rate.

The assessment of credit risk is understandably a critical part of a lender’s business model. Where a credit rating agency has already published a credit rating for a customer, the lender can use this as a reference for credit risk. Where a credit rating is not publically available for a customer, the lender often assesses credit risk by analyzing the AFS of the customer. The lender scrutinizes the nature and amounts of the entity’s assets, liabilities, income and expenses. It also computes various financial ratios as part of its analysis, for example the leverage ratio. Depending on the results of the analysis, the lender will decide whether to lend to the entity or not. If the lender does decide to lend, it will determine the interest rate that appropriately manages the entity’s exposure to credit risk.

Under IAS 17, the AFS of two entities (lessees) that had similar lease arrangements could look very different. This was because the lessees may have classified their lease arrangements differently depending on their individual analyses of the lease indicators. The lessee that classified its leases as operating leases (lessee A) would have no assets or liabilities associated with the leases on its balance sheet. Its income statement would show the rental expense incurred during the year. On the other hand, the lessee that classified its leases as finance leases (lessee B) would have recognised lease assets and liabilities on its balance sheet. Its income statement would show depreciation of the leased asset and interest expense on the loan. A practical illustration is provided in the table below:

Table II: Illustration of lessee accounting under IAS 17	
Scenario: • Leased asset: Machinery • Lease term: 4 years • Lease payments: R5 000 payable annually in arrears • Effective interest rate charged by lessor: 10% per annum **Assume:** • Lessor A classifies the lease as an operating lease • Lessor B classifies the lease as a finance lease	
Lessee A: Operating lease accounting	**Lessee B: Finance lease accounting**
Balance sheet (at inception of lease) • Nil effect	***Balance sheet (at inception of lease)*** • Finance lease asset: R15 849[60] • Finance lease liability: (R15 849)
Income statement (at inception of lease) • Nil effect	***Income statement (at inception of lease)*** • Nil effect
Balance sheet (at end of year 1 of lease) • Nil effect	***Balance sheet (at end of year 1 of lease)*** • Finance lease asset: R11 887[61] • Finance lease liability: R12 434[62]
Lessee A: Operating lease accounting	**Lessee B: Finance lease accounting**
Income statement (at end of year 1 of lease) • Rental expense: R5 000[63]	***Income statement (at end of year 1 of lease)*** • Depreciation expense: R3 962[64] • Interest expense: R1 585[65]

[60] The initial finance lease asset and liability is calculated as the present value of the annual lease payments using the effective interest rate

[61] The finance lease asset is depreciated over the 4 year lease term. After 1 year of depreciation, the carrying amount is reduced to R11 887.

[62] The finance lease liability is measured on an amortised cost basis. Interest at 10% is added to the initial liability and the payment of R5 000 is subtracted from the liability.

[63] A lease/rental expense is recognised on a straight-line basis over the 4 year lease term. In this scenario the annual lease payments are equal so there is no need to straight-line the payments.

[64] Depreciation on the finance lease asset is calculated at R15 849 / 4 years.

[65] Interest on the finance lease liability is calculated at R15 849 x 10%.

If a lender concentrated solely on the balance sheet and income statement of the two lessees' AFSs, the lender could conclude that lessee A had a more favourable leverage ratio. With no lease liabilities on-balance sheet and no interest expense in the income statement, the lender may assess the credit risk of lessee A to be lower than that of lessee B. This is despite the fact that the two lessees had the same lease payment commitments. This school of thought contributed to the structuring of lease arrangements by lessees in order to keep the leased assets and the corresponding liabilities off-balance sheet.

This paper suggests that the 'on-balance sheet' accounting requirements may dilute the importance of the decision as to whether an asset shall be leased or rather purchased, as the newly required 'on-balance sheet' reporting will reduce the previous disclosure discrepencies. It is noted, however, that the *buy versus lease argument* spreads significantly further than an accounting decision, for example, the entity's cash flows and capital commitments will need to be scrutinized. None the less; the closer aligned reporting requirements of the new standard may allow a more strategic decision to be made by an entity as to how it finances its capital expenditure with potentially less emphasis on the now narrowed financial statement differences.

The elimination of operating lease accounting has many lessees concerned about a negative impact on their financial statement amounts and ratios (IASB and FASB, 2013). There is a concern that when lessees are required to apply IFRS 16 and capitalise their previous operating leases on-balance sheet for the first time, lenders will see them in a different light. If lenders assess these lessees to be less credit worthy, they may be less inclined to provide new loans. They may also impose a higher interest rate on existing or future debt.

Is this concern founded? It could be from the assumption that lenders don't consider an entity's off-balance sheet debt when assessing credit risk. Previously, where the lease liabilities were not recognised on-balance sheet, lessees were required to disclose the total future lease payments they were committed to paying in a note to the AFS (IASB, 2015, para 35). A lender could get a more holistic view of an entity's obligations by considering both the on and off-balance sheet lease obligations. A lender that followed this approach would not favour a lessee with operating leases over a lessee with finance leases.

The IASB's response to this concern is that IFRS 16 represents a change only to accounting. According to the IASB, IFRS 16 will provide more transparent information about a company's existing financial commitments, but it will not change those commitments - stated differently, the company is still the same company, and thus still in the same financial position after the implementation of IFRS 16 as it was when it applied IAS 17. This is despite the balance sheet being materially different to that which it was before. In addition, information received by the IASB indicates that most sophisticated users of financial statements (including credit rating agencies and lenders) already estimate the effect of off-balance sheet leases on financial leverage, particularly when a company has a significant amount of off-balance sheet operating leases (IASB, 2016a). (Altamuro et al., 2014) performed research which also provides evidence in this respect. The evidence suggests that lenders set interest rates based in part on credit ratings when published credit ratings are available. Because the credit rating agencies adjust for off-balance sheet leases, the interest rates charged on loans granted to credit-rated borrowers are not expected to change as a result of the implementation of IFRS 16. This finding suggests that perhaps the costs that will be incurred to convert the accounting to IFRS 16 may be simply a cost, with no benefit attached, because the information was already disclosed in the commitment note required by IAS 17. Thus the authors feel that this cost then may be an additional unintended consequence.

Analysts

There are two main types of analysts, namely equity analysts and credit analysts. An equity analyst does research and analysis on companies to determine the merits and demerits of investing in the shares thereof. A credit analyst assesses and evaluates the credit risk of companies. A primary source of information for analysts is the AFS that companies publish. Analysts use the AFS to calculate specific financial ratios which inform their views on the companies.

Some lessees have also raised concerns about how they will be viewed by analysts when they are required to capitalize their previous operating leases on-balance sheet. For example, if an equity analyst is particularly interested in the asset turnover ratio of companies and sees that this ratio decreases significantly for a company on adoption of IFRS 16, will that analyst discourage potential investors from investing in the shares of said company? Similarly, if a credit analyst focuses on the leverage ratio of companies when assessing credit risk, and sees that this ratio increases for a company on adoption of IFRS 16, will that analyst discourage potential lenders from providing finance to that company?

In this regard, in a SAICA Panel Discussion on IFRS 16 held during August 2016 in Johannesburg, David Smith (Equity analyst, RMB Morgan Stanley) provided his views on the impact the new accounting by lessees will have on analysts. He explained how he, and other analysts, typically needed to make adjustments to the information reported in the AFS of lessees that had significant operating leases under IAS 17. These adjustments were necessary in order to fairly compare companies that purchased assets outright to other companies that chose to lease similar assets via operating lease arrangements. Analysts would use the information in the notes to the AFS regarding future lease payments to estimate the unrecognized assets and liabilities arising from operating leases. A common technique to estimate the lease asset and liability was to calculate the present value of the future lease payments. However, this was not always possible because of the limited information provided in some companies' AFS. David Smith's feedback highlights that sophisticated analysts were already aware that lessees with operating leases had off-balance sheet debt that needed to be considered before the lessee could be critically analysed and compared to lessees with finance leases. It highlights the challenges that analysts faced when AFS did not provide the information they needed to make meaningful adjustments to the amounts. This point also highlights that the disclosure for these commitments were already in place, and that perhaps just some upgrading of this note disclosure could have assisted analysts in this regard without the need for a radical transformation in the accounting standard.

The need for these specific adjustments will fall away when IFRS 16 is applied because all lessees will be required to recognize assets and liabilities for leases on-balance sheet. It seems therefore that the job of an analyst may become easier in the future. Furthermore, lessees may not be viewed any differently by analysts when they capitalize leases for the first time.

Costs to implement IFRS 16 may exceed the benefits

Some lessees feel that the cost of transitioning from IAS 17 to IFRS 16 will exceed the benefits. As can be seen from the above paragraph, it would have been far easier and cheaper to perhaps upgrade the commitment note disclosure under IAS 17 as a mechanism of assisting analysts. The IASB believes the implementation of IFRS 16 will result in a more faithful representation of a lessee's assets and liabilities (IASB, 2016c, Introduction, para 6) which will ultimately benefit the users of the AFS. While this may be true, lessees with a large number of operating leases will need to dedicate considerable time and energy to the implementation. This will result in additional costs for these lessees.

In order to capitalize existing operating leases on to their balance sheets, lessees will need to analyse the terms of each lease contract. This will require lessees to gather and organize all existing lease contracts which could prove challenging where the contracts are not in an electronic form – hard copies may have been lost or misplaced over time. For large international companies, hard copies may also be held in different locations around the world.

Many respondents to the ED and the IASB itself anticipates that IT systems will need to be upgraded or newly set up to store the lease contract data and to assist with the accounting required by IFRS 16 (IASB, 2016a). Furthermore, costs will be incurred to train staff to use the IT systems as well as to understand the requirements of the new accounting standard.

Whilst it seems that the incurrence of costs is unavoidable, will the costs of implementing IFRS 16 really exceed the benefits? The task of gathering and organising existing operating lease contracts may be a time consuming exercise but the proposed changes to lessee accounting have been in the public domain since the ED of 2013. Even if lessees chose not to react until the final accounting standard was published, lessees will have approximately three years to prepare for IFRS 16 as the standard was published in January 2016 with an effective date of 1 January 2019. If lessees use this time effectively, costs could be minimized. For example, instead of hiring additional staff to perform this labour-intensive exercise at the nth hour, existing staff could comfortably perform the exercise over a three year period. Furthermore, the conversion of hard copy lease contracts into electronic copies will have other long-term benefits. Lessees will be able to access information regarding any contract at the touch of a button, resulting in efficiencies.

Lessees with some existing finance leases may be able to use their existing IT systems as a starting point for accounting for their operating leases in accordance with IFRS 16. This is because IFRS 16 effectively treats all leases as finance leases. For lessees that don't have existing finance leases, many of them might already have IT systems in place to manage and track leases, which should help to mitigate the costs of implementing IFRS 16. These lessees would have been collating certain information to meet the lease payment commitment disclosure requirements of IAS 17.

Low value exemption may lead to a lack of comparability between lessees

In certain instances, and in terms of paragraph 5 of the IFRS 16, a lessee may elect not to recognize a ROU asset and lease liability for its leases. This exemption from the general requirements of IFRS 16 can be elected for:
(i) short-term leases (i.e. where the lease term is 12 months or less); and
(ii) leases for which the underlying asset is of low value when it is new.

The second exemption is commonly referred to as the low value exemption. Interestingly, IFRS 16 does not provide a threshold/amount for determining whether an asset has a low value. The standard provides examples of low value assets including a tablet, personal computer, telephone or a small item of furniture. In practice, lessees will have to apply their judgement as to whether they believe an asset that they lease is of low value or not. Importantly, however, the IASB expects all lessees, regardless of their size, nature or circumstances, to reach the same conclusion as to whether an item is low value or not. Based on this, a large listed company and small private company should reach the same conclusion. It therefore appears that entities should not take their own materiality levels into account when making their assessment (IASB, 2016c, Appendix B, para 4).

The low-value exemption intends to capture leases that are high in volume but low in value. The application of the exemption may mean that an entity that leases many low-value items may avoid the recognition of the related lease liabilities, even though, in aggregate, the liability would be material (KPMG IFRG Limited, 2016). While the low value exemption may come as a relief to some lessees, one of the IASB's own members disagreed with the inclusion of this exemption in the new standard. When IFRS 16 was published, it included a section entitled "Dissenting Opinion" which explained why Mr Wei-Gui Zhang voted against the publication of IFRS 16 (IASB, 2016c, Dissenting Opinion, para 1-9). Mr Zhang did not believe that leases of low value items should be treated differently from any other leases. If a lessee does not need to consider its own materiality levels when electing the exemption, a lessee could potentially have many leased assets off-balance sheet, even if in aggregate, the leased assets have a high value. The AFS of a lessee like this will not be comparable to those of a lessee with leases of high value assets, even if both lessees have similar future obligations for lease payments. Mr Zhang also noted that the low value exemption could create the same tension between leasing and buying low value assets that existed applying the requirements of IAS 17. He was concerned that entities that require material amounts of low value assets would be incentivised to lease those assets rather than buy them in order to achieve off-balance sheet accounting.

CONCLUSION

The future AFS of many lessees will look considerably different following the adoption of IFRS 16. Former operating leases will be capitalised resulting in the presentation of "new" assets and liabilities on the face of the balance sheet. The findings of this study suggest, however, that these assets and liabilities are not "new" at all. Operating lease arrangements have always given the lessee a right to use the underlying asset which embodied economic benefits. In other words, operating leases have always created an asset for the lessee. Similarly, operating leases have always created a liability for the lessee as they impose an obligation on the lessee to make payments to the lessor over the lease term. Effectively, lessees will be in the same economic position before and after the implementation IFRS 16.

Although the face of the balance sheet will change, the previous lease accounting standard, IAS 17, required lessees to disclose their future operating lease payment obligations in an explanatory note to the AFS. The findings show that sophisticated users of AFS, such as lenders, have historically used the information in this note to get a better understanding of a lessee's financial position. Other users, for example, analysts and investors, have also analysed the information in this note to better understand the lessee's profitability and to make independent assessments of the lessee's future prospects. Sophisticated users were making adjustments to the amounts presented on the face of the balance sheet as well as those presented on the face of the income statement in order to calculate many of the financial ratios used to analyse and compare different companies. This indicates that lessees may not be seen in a negative light just because certain off-balance sheet information will come on-balance sheet in the future. In fact, they are likely to be seen in the same way they always have been.

Inevitably, there will be costs of transitioning from the old accounting standard to the new one. However, these costs can be managed. Moreover, the costs can result in other lasting benefits. Lessees need to use their time effectively as they embark on the project to transition to IFRS 16. The earlier they start, the more cost-effective they can be. Lessees should consider how the new lease requirements can be incorporated into existing processes and systems. The capitalization of leases is not an entirely new concept – it is effectively finance lease accounting repackaged.

In conclusion, the results of the study suggest that IFRS 16 will not result in a fundamental change for lessees. The new standard will result in leased assets and the related liabilities shifting from the notes of the AFS to the face of the balance sheet. Much ado about nothing?

In reaching this conclusion, it must be noted that this study is not without limitations. Since IFRS 16 is effective only from 1 January 2019, the full impact on lessees cannot yet be known. As lessees embark on the task of transitioning from the old to the new leases standard, and ultimately when they start to publish their IFRS-compliant AFS, the full impact will become clearer. Furthermore, this study did not include a quantitative analysis of AFS prepared using IAS 17 in order to estimate the impact that IFRS 16 will have on amounts and ratios. Future research may expand on the study, for example, by performing a quantitative analysis on AFS prepared using IFRS 16 and comparing the restated amounts to those previously reported. Quantitative work can also be expanded by way of feedback from preparers as to whether the unintended consequences did in fact cause a material concern to preparers and what other obstacles were met along the way. An additional study can be undertaken analyzing the strategic virtues in an entity's decision as to whether capital expenditure should be incurred by way of owned or purchased assets versus by way of leased assets.

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FAC016 **Using a balance between Neoliberalism and Stewardship to develop Disclosures for Strike Actions**

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ABSTRACT:
Strike action is a major threat to profitability of all businesses around the world. It is an inevitable concomitant in the production of income for entities – almost an unavoidable and recurring factor, especially in South Africa. This paper investigates the need for unique accounting disclosures for effects of strike action in the integrated report. This has been established by using a survey targeting forty-two practitioners in the accounting field. The disclosure is based on three underlying principles in the International Financial Reporting Framework (IFRS) and stewardship accounting and neoliberalism paradigms within the Conceptual Framework: (1) period of focus, (2) conditions for recognition and (3) value of measurement. This disclosure will present forward-looking information on possible effects of strike action and its quantitative measurement and qualitative disclosures. It was found that users of financial statements required specific disclosure of strike action in the integrated report and the users favoured stewardship (predominantly focused on reliability) over neoliberalism (predominantly focused on relevance).

Key words: strike, South Africa, integrated reporting, neoliberalism, stewardship.

Introduction

South Africa is known to be affected by many strike actions[66]. The country experienced an average of 65 strike actions per annum during 2007 to 2011. Also, it experiences strikes more than the rest of the world – globally about 30.6 average days are lost per annum but in South Africa, about 507 working days are lost out of 1000 (Odendaal, 2014). Not only does strike action affect the business itself but it also affects the economy. Taking the major 2014 AMCU platinum strike into account, the first quarter of 2014's annualised GDP reduced to –0.6% and also the manufacturing and mining faced a reduction of –4.4% and –24.7% respectively (Petterson, 2014).

These stats show that strike action has the ability to affect the operations and financial statements of an entity detrimentally. Strike actions can potentially cause lost opportunity for profit-making, create wider pools of conservative international investors, damage reputation to international and local communities and spend large sums on negotiations and settlements (Petterson, 2014). The significance of strike action on entities and its impact on the economic reality of South Africa are of great importance and the generic IFRS is not sufficient to account for these effects of strike action (Hopwood, 1987a). Therefore, the purpose of this paper is to recommend reporting the effects of strike action. This will be achieved by following the principles in the IFRS. In addition the theoretical frameworks of stewardship and neoliberalism will be used in developing the proposed accounting requirements (Murphy et al., 2013). The intention is not to make amendments to the existing accounting standards, but to apply the key principles to complement the reporting on the effects of strike action within the integrated report but *outside* the annual financial statements (Swart, 2015).

This paper is divided into sections that deal with the theoretical frameworks, development of the instrument, method, results, analysis and conclusion.

Literature Review

Theoretical Frameworks

The International Accounting Standards Board (IASB) has combined neoliberal and accountability paradigms to create one Conceptual Framework (The Conceptual Framework, 2010). This was to improve consistency and to achieve completeness between the theoretical frameworks (Whittington, 2008b). There is more focus to enhance decision-usefulness based on neoliberal political and economic ideology, but, arguably, the need for accounting to facilitate stewardship has remained (Murphy et al., 2013).

In terms of stewardship, accounting has its genesis in the need to 'keep account' in order to hold individuals accountable, a function which continues to be relevant in contemporary organisations (Hopwood, 1987b, Ravenscroft and Williams, 2009). From a classic agency perspective, the information asymmetry between management and shareholders can also be seen as requiring an accounting function to ensure monitoring and control (Young, 1998). In

[66] Strike action is an action where employees stop working because of an argument with the employer involving disagreements in working conditions, amount of pay or termination of employment contract CAMBRIDGEDICTIONARIESONLINE. 2016. Cambridge University Press. Available: http://dictionaries.cambridge.org [Accessed 11 April 2016].

addition Gjesdal's (1981) view is that there is a demand for financial statements to facilitate corporate stewardship. Ravenscroft and Williams (2009) confirm this view, arguing that accounting assists an organisation by presenting facts which can be used to enhance the organisation and provide a basis for rating management's performance. This leads to a clear focus on objective measures of financial position and performance and an emphasis on determination and allocation of costs (Gjesdal, 1981, Whittington, 2008, Ravenscroft and Williams, 2009).

From a neoliberal perspective, financial reporting has experienced a fundamental shift characterised by a neoliberal paradigm (Ravenscroft and Williams, 2009, Murphy and O'Connell, 2013, Zhang and Andrew, 2014a). At the heart of neoliberal accounting is the 'information metaphor' which sees the primary purpose of financial reporting as the provision of useful information to users (Whittington, 2008, Ravenscroft and Williams, 2009). In addition Neoliberalism requires that the accounting reflect the future, decreasing the relevance of past transactions, prudence and cost, and increasing the emphasis on fair value and non-entity-specific market prices (Whittington, 2008). The new neoliberalism-based framework aims to reflect financial performance relative to market behaviour and the ability of the reporting entity to generate future cash flows, even if these cannot be accurately measured (Whittington, 2008b). Therefore, financialisation in the Conceptual Framework relieves uncertainty and mispricing in accounting through the use of fair values in accounting valuations (Zhang and Andrew, 2014b). This information is forward looking and is relevant in that it would assist users of the financial statements in making forward looking (future) decisions.

Future or forward looking information satisfies The Conceptual Framework's requirement that financial information should be relevant (Ravenscroft and Williams, 2009). However there should be a trade-off between relevance and reliability in order for financial statements to faithfully present the economic performance and financial position of an entity (The Conceptual Framework, 2010). Stewardship accounting does not determine future cash flows but rather predicts to use as a monitoring tool to assess management. Also, it records assets and liabilities at their historical cost and not their arms-length market values in order to enhance accuracy rather than the relevance (Whittington, 2008b). Therefore, stewardship focuses largely on reliability as it focuses on the reporting of historic costs (Whittington, 2008). In using the two frameworks to develop reporting requirements related to strike action, a more holistic and comprehensive set of reporting requirements are taken into account when developing the instrument.

Development of the Instrument

A key concept in the Conceptual Framework is the materiality of information, which explains whether or not information is relevant. If the omission of information influences the decision of users, the information is considered material (IASB, 2015a). According to Mining Weekly, strike action is seen as a risk with the ability to affect the operations and financial statements of an entity detrimentally (Odendaal, 2014).

The neoliberal framework moves away from the accuracy concept of stewardship accounting where its reliability is derived from past occurrence of the transaction. However, as the neoliberal framework is based on the forward-looking information, current occurrence of strike action may not be sufficient for user benefit (Swart, 2015). Currently, most of the companies report on strike action that actually occurred during the current period. For example, the Anglo American Plc's 2014 annual report includes the following:

- Explanation of the effect of the 5-month strike on supply of platinum
- Adjustment made to copper production
- Unit cost metrics
- Inclusion of strike costs in group's real cost cash movements
- $0.8 billion impact on its group financials from strike action (distinguishable to other mining companies)

There is no indication, however, of the potential future strike action occurring again, even though it is evident that strike action occurs frequently in particular industry sectors. As a result, the research instrument is developed using the three underlying principles from IFRS: the period of focus, recognition and measurement.

Period of focus

Future operating losses are specifically excluded from accounting treatments and note disclosures in IAS 37 (IASB, 2015b). This is due to the stewardship accounting's principle that there must be a past occurrence which forms the basis of an element's recognition (Whittington, 2008b). However, from a neoliberal perspective, it is relevant information no matter the past event, as the users will be able to benefit from the knowledge of whether or not the organisation will be able to meet their future possible debts (Zhang and Andrew, 2014b). Some standards' period of focus is on the future. Swart (2015), for example, explains that in IFRS 2, the vesting of share appreciation rights need not be satisfied for a share-based payment liability to be recognised but an expectation of vesting in the future suffices (IFRS 2, 2015c). Also, in IFRS 9, for regular way purchases, it allows pre-recognition of changes in fair values of the financial asset if the settlement date accounting is chosen (IFRS 9, 2015e). This means that the past occurrence of trade date is irrelevant in recognising for the possible settlement in the future. Therefore, the period of focus can be expanded into:

- Present
- Future (next reporting period)
- Future (period covered by budgets and forecasts)

Condition for recognition

For stewardship accounting, recognition of an element requires satisfaction of detailed definitions in the Conceptual Framework. With neoliberalism the condition for recognition is simple. Swart (2015) explains that this is evident in IAS 37 and IFRS 3. Provision recognition requires probability of future occurrence but IFRS 3 only requires a reliably estimated fair value for recognition. The possibility of occurrence is deemed to be enough for recognition (IAS 37, 2015b, IFRS 3, 2015d). This is also apparent in IFRS 9 where derivatives are recognised with little accuracy on the amount and possible future settlement (IFRS 9, 2015e). Therefore, broader criteria on conditions for recognition can be determined from Swart (2015, p. 9):

- Past occurrence
- Possibility of occurrence one period into the future

- Possibility of occurrence in the period covered by forecasts

Measurement

Swart (2015) explains that measurement of liabilities can either be derived from an internally computed figure or an external fair value. To be more in line with the Framework, IFRS 9's fair value measurement will be relevant. However, for stewardship accounting, management's best estimate is available to use per IAS 37 (Swart, 2015).

Ram et al. (2016) explain that if a transaction is within the normal production of activities, the economics of the transaction is that it is more like inventory. As a result it should be measured at cost as users are more concerned about management's ability to control revenues and variable costs that are part of the operation. Ram et al. (2016) also present an alternative which is the fair value measurement basis. This states that if the intention of management was to use the transaction for speculative purposes and the changes in the fair value were placed at greater importance, cost accounting will not provide useful information. Strike action is inevitably part of the normal production activities of organisations as it directly impacts costs and revenues of the operation. However it can also be a factor to evaluate the changes in the fair values of the entity specifically due to strike action (Ram et al., 2016). The decision of choosing a valid measurement basis will depend on the specific organisation's management's judgement (Swart, 2015). Internal values of measurement include:

- Foregone revenue
- Direct costs
- Indirect costs (including opportunity costs such as foregone revenue)
- Changes in cash flows as estimated by management

External values of measurement include

- The change in fair value of the reporting entity
- A premium required to indemnify the entity against losses pertaining to a particular liability

(Per Swart, 2015, p10-11)

Other disclosures

Other qualitative and quantitative disclosures may be suggested according to a company's needs in order to reflect the most appropriate disclosure. These disclosures have been adopted from Swart (2015) and the IIRC (2013) and modified to deal with disclosures on strike action:

- Current and future effect should be separated
- Current and future effect should be aggregated
- Effect should be discounted at the appropriate rate
- The fact that strike action is in effect
- The estimated duration of strike action
- The number of occasions on which strike action occurred
- The number of occasions on which strike action is expected to occur in the period covered by management's budgets and forecasts

- Qualitative information on how accurate management has been in predicting the occurrence of strike action
- Qualitative and quantitative information on management's plans to mitigate the effects of strike action and the success of these plans against stated performance indicators
- Qualitative and quantitative information on any legal claims against the company
- Qualitative information on union involvement

Research Method

The research was designed using an online survey similar to the approach followed by Swart (2015, p. 13) and Rensburg and Botha (2014). The focus for this survey was on practitioners in the accounting field in order for them to understand the three underlying accounting principles discussed above were used as the basis for the development of the survey. Respondents were required to choose an option between 1 (strongly disagree) and 5 (strongly agree) for each of the reporting options provided in the preceding section. Ethical clearance was obtained so that respondents could give consent before completing the survey. The clearance obtained was in line with the Universities standard practice.

Descriptive statistics were used to evaluate the results. The survey was sent to post-graduate students, professionals and lecturers in the accounting field and forty-two responses were received. They are all from renowned institutions, therefore, characteristics such as level of experience or place of employment have not been taken into account when analysing the survey. The differences in the results may have been from respondents' preference over stewardship accounting and neoliberalism, knowledge of IFRS and other individual characteristics.

Results and Analysis

The results are presented in the graphs and have been analysed with unpresented statistical analysis showing the following:

Period of focus

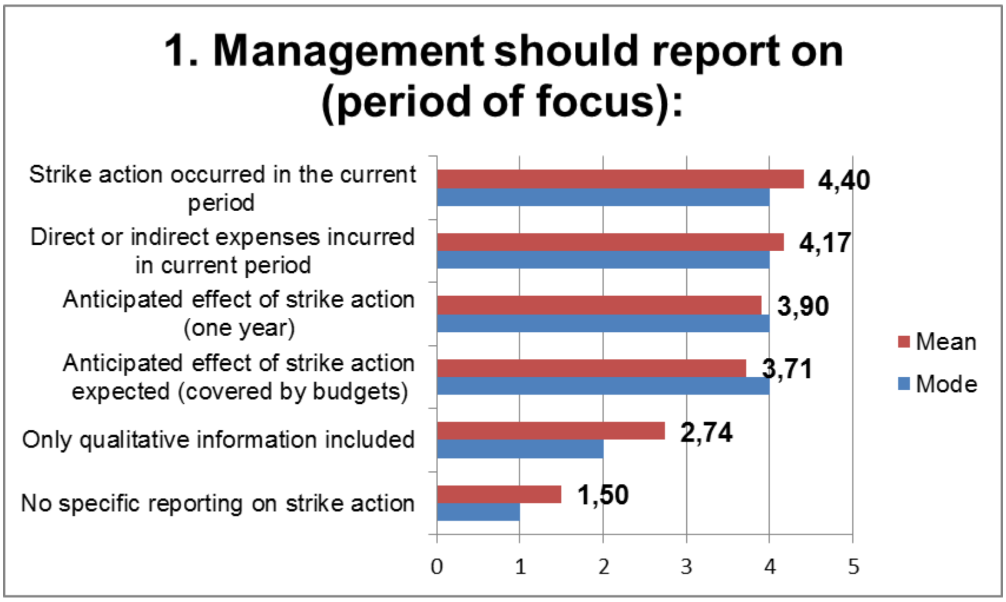

Figure 1: Period of focus in presenting effects of strike action

Sixty-five per cent of the respondents either disagreed or strongly disagreed with the inclusion of only qualitative information (Mean score = 2.74), which means that quantitative information is necessary. There was a preference over the current effect (Mean score = 4.40) than the anticipated effect within the next period (Mean score = 3.90) and the anticipated effect over the period covered by managements' budgets (Mean score = 3.71). The results in figure 1 determine that the respondents want information of strike action close to the current period as possible.

This contrasts with the neoliberal conclusion reached in section 2.1, however, is in line with the stewardship accounting focus. By analysing the mean scores, the respondents who preferred stewardship accounting (Mean score = 4.02, Mode = 4) would have decided on the current period effect as it can be reliably determined that it occurred (Whittington, 2008b). The respondents also showed that they believed anticipating information was useful (Mean score = 3.45, Mode = 4). The results portray exactly what the current standards are based on. As discussed in section 2.1, the current standards present both stewardship accounting and neoliberalism and the survey results determine exactly that.

Condition for recognition

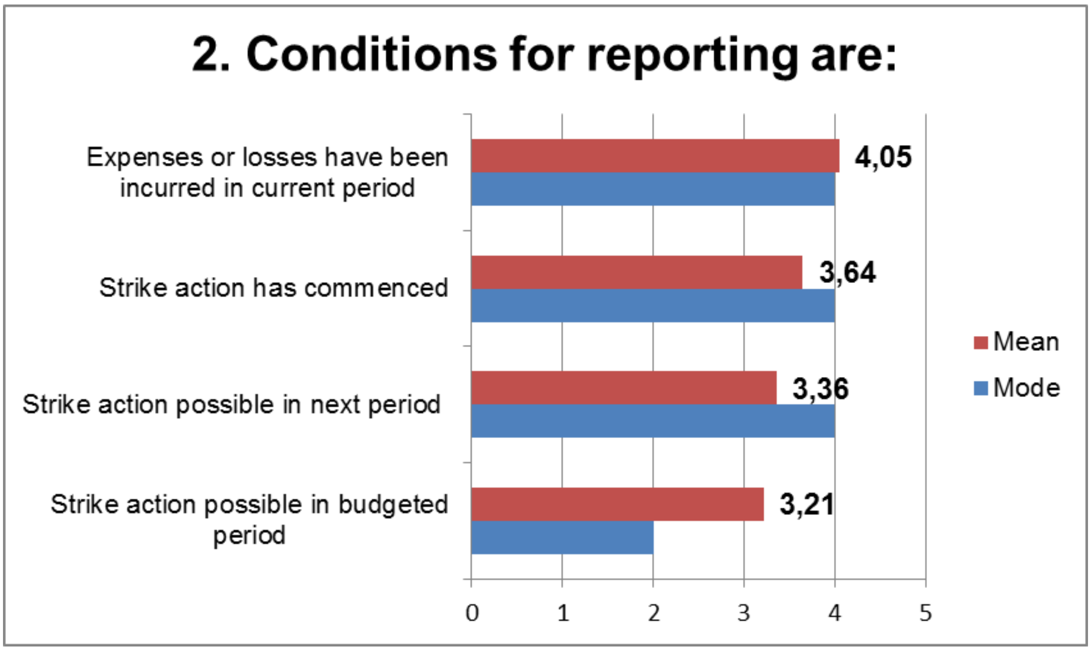

Figure 2: Recognition criteria to present effect on strike action

The costs incurred due to the strike action effect had the highest amount of selections (Mean score = 4.05, Mode = 4) and the commencement of strike action had the second highest (Mean score = 3.64, Mode = 4). This proves that the respondents decided that an amount actually incurred is more useful than the possibility of occurrence. However, the strike action possible in the next period (Mean score = 3.36, Mode = 4) and the strike action possible over the managements' budgets (Mean score = 3.21, Mode = 2) were not much different from the first. Consistent with the purpose of financial accounting, both stewardship and neoliberal focus was made in respect of the recognition criteria. However, it seems as though it is ideal to present the strike action effect closer to the current period.

The results in figure 2 shows that the respondents believe both current and anticipated future effects should be shown but to the extent that the information is reliable. The determination of reliability will depend on the management's history of correctness of their budget and how much a specific investor is willing to trust the agent's estimates. As accounting has developed in such a way that it is for the greater of general utility and not of specific individual organisations, it is up to individual entities to decide on these specifics (Hopwood, 1987a).

<u>Value of measurement</u>

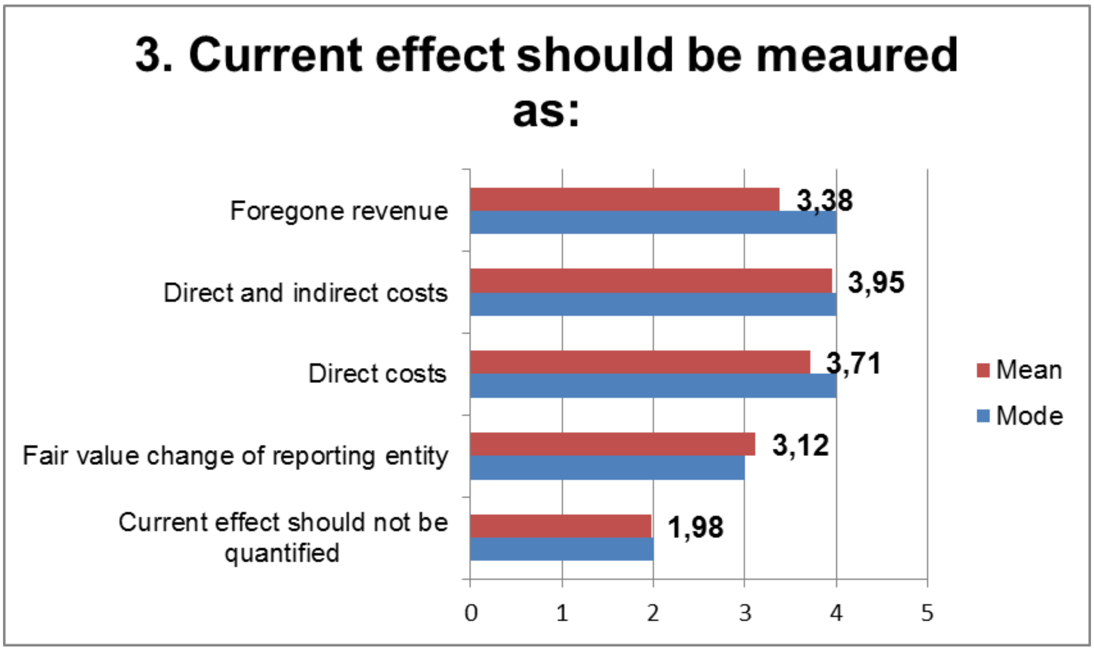

Figure 3: Measurement of current effect on strike action

For the disclosure of current period effect as per figure 3, the mean score shows that direct and indirect costs should be used to present the quantified effect on strike action as it had the highest mean score of 3.95. The mean score of other provided options in consecutive order was: direct costs only (3.71), foregone revenue (3.38) and fair value changes of reporting entity (3.12). Not quantifying the results was not an option as seventy-nine per cent of the respondents either disagreed or strongly disagreed. By interpreting the results, respondents prefer a reliable amount to be used and as the mean scores do not differ significantly; it can be interpreted that an amount available to the reporting entity should be used (Hopwood, 1987a).

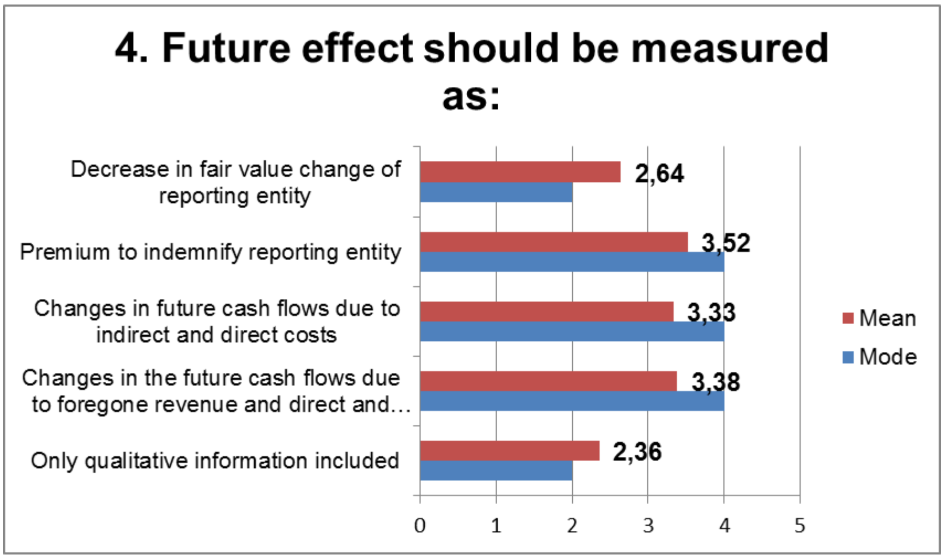

Figure 4: Measurement of future effect on strike action

In the analysis of the future period effect as per figure 4, the mean score shows that premium to indemnify the entity is most preferred (Mean score = 3.52). However, there were insignificant differences between the favoured one and the others: the changes in future cash flows from foregone revenue and direct and indirect costs had 3.38 and changes in future cash flows from direct and indirect costs had 3.33. Also, all three criteria had a mode of 4 which means that again the respondents agree with these options but the presentation will depend on the specific reporting entity (Hopwood, 1987a).

Other disclosures

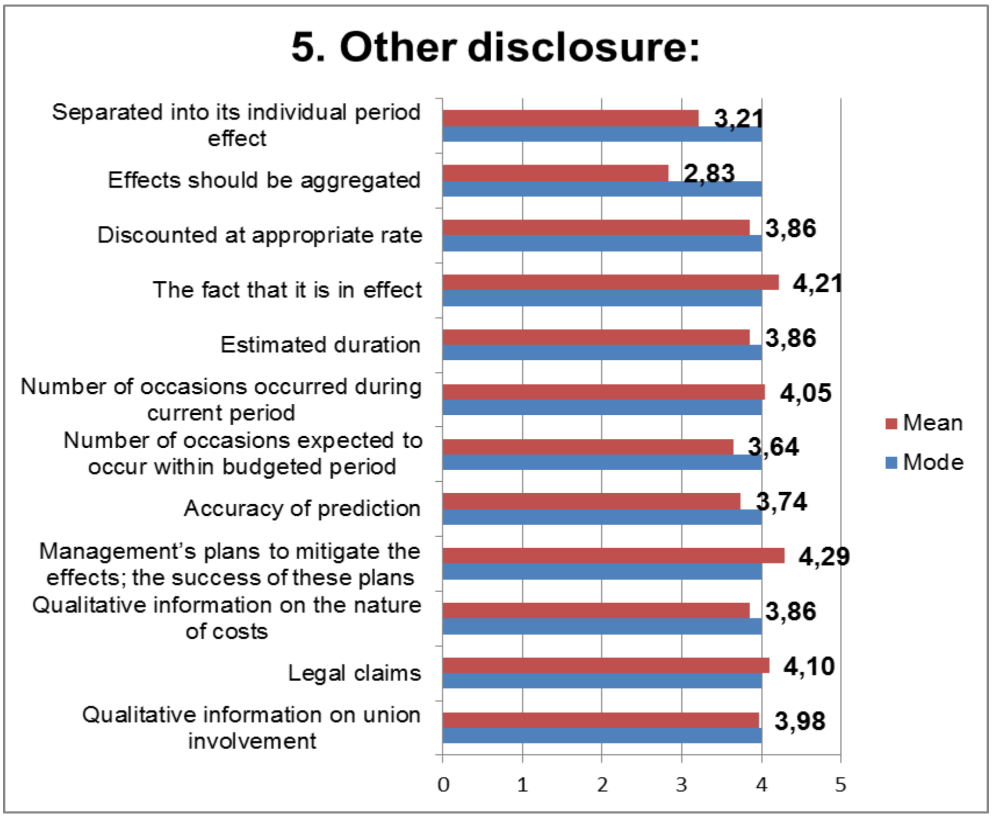

Figure 5: Other suggested disclosure for effects of strike action

All the possible disclosures presented to the respondents had the mode of 4 (agree). The disclosure of management's plans to mitigate the effects of strike action and the success of these plans had the highest mean of 4.29 – ninety-five per cent of the respondents agreed or strongly agreed with this statement.

There are not significant differences between the 9 disclosures provided to the respondents. These, in consecutive order of mean score, are: the fact strike action is in effect (4.21), legal claims (4.10), number of strike actions occurred in the current period (4.05), qualitative information on union involvement (3.98), estimated duration of strike action (3.86), qualitative information on nature of costs of strike action (3.86), accuracy of management's prediction (3.74) and number of strike action expected to occur over the management's budget (3.64). This reveals that once again, respondents do agree with the following disclosures but it will depend on the type, size and the information available to the specific reporting entity as can be interpreted from figure 5.

The need for disclosure on strike action

As discussed when developing the instrument, the importance of the disclosure of strike action effect was imperative to investors. Respondents were asked whether or not they agreed that management should not specifically report on strike action. Ninety-three per cent of the respondents either disagreed or strongly disagreed that there should be no specific reporting of strike action (Mean score = 1.50).

This proves that continuous omission of the effects of strike action goes against the true purpose of the financial statements. The mere inclusion of the effect, as discussed in section 2.2, is inappropriate, if such costs are not explicitly disclosed in the financial statements (figure 2).

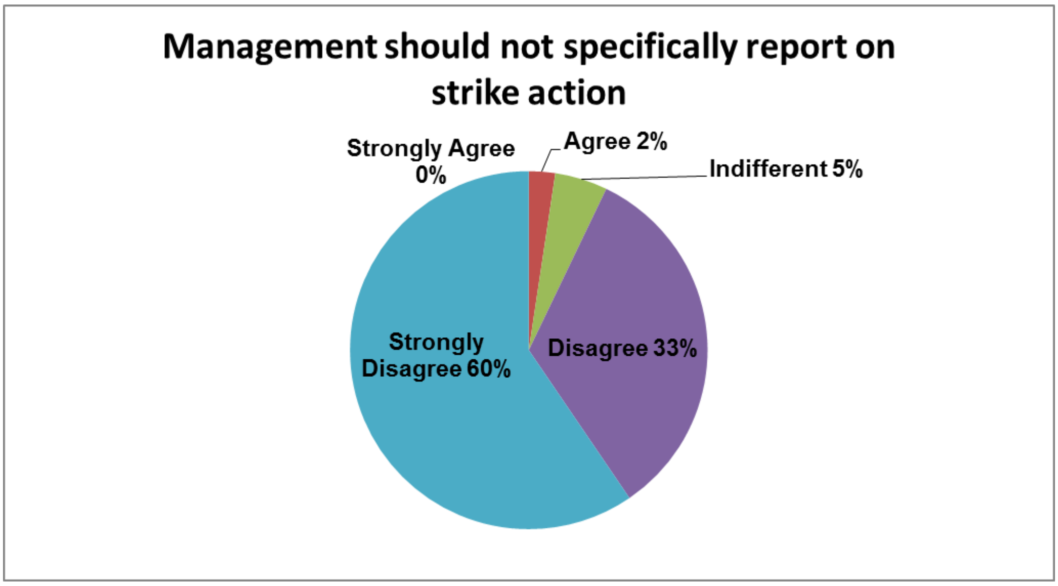

Figure 6: Specific reporting on strike action

Conclusion

This paper does not suggest any changes to IFRS, but aims to stimulate discussion on additional note disclosures in relation to strike action. This is supported by the data in Figure 6.This paper found that the users require more detailed disclosures on the effects of strike action in the reporting entity. The results indicated that the effect of the strike action, in the current year, be the focus of the disclosure. This indicates that the respondents selected stewardship as the theoretical framework where most of the disclosures are to be derived from. Stewardship focuses on the reliability of financial information and not necessarily its relevance (Ravenscroft and Williams, 2009). Neoliberalism focuses on forward looking information as it is relevant (Whittington, 2008). The respondents were of the opinion that the forward looking information lacked reliability and the inference is that stewardship-derived disclosures would provide more useful information.

The users' need for the disclosure is due to potential benefits they may receive. Information on strike action will allow users to decide whether or not to invest in the entity by interpreting the future growth, possible damage in profits and reputation, and the analysis of the management's ability to expect future consequences. This is why accounting practitioners require that reporting the effects of strike action is imperative – not only because of potential benefits to the users but because of their duty to comply with the requirements of IFRS. Such disclosure would not simply be a ticking of a "compliance box" (Raemaekers et al., 2016).

The research study was sent to over 200 respondents and only 42 responses were received. This response rate is low and is a limitation to the study as a greater sample would've been desirable to reach a point of saturation. Therefore the responses may not represent the views of the population as a whole, but are an indication of their opinions.

This paper only suggests the initial outline of the possible disclosures. The research done in this paper is a guideline for future development and more research must be done to expand this topic. The decision on how entities will obtain the required information and the practicality of the three underlying principles needs to be discussed and explored in more detail.

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FAC017 **THE VALUE RELEVANCE OF GOODWILL UNDER IFRS 3: A SOUTH AFRICAN CONTEXT**

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ABSTRACT:
This study tests the value relevance of the carrying amount of goodwill under IFRS 3, in a South African context. An adaptation of the Ohlson model was used which found the carrying amount of goodwill to be value relevant. These results are in line with other studies and could be seen to confirm the recognition of goodwill as an asset; since investors perceive goodwill to reflect future economic benefits. These results also suggest that goodwill measured under IFRS 3 provides useful information to market participants since a positive relationship exists between goodwill and the market value of equity of firms. A possible reason for goodwill being value relevant under IFRS 3 is the distinct requirement to impair goodwill as opposed to the previous amortisation requirement. The value relevance of impairment losses is a suggested area for future research in a South African context as this would give additional information regarding goodwill value relevance under IFRS 3.

Key words: Goodwill, intangible assets, Ohlson model, value relevance.

INTRODUCTION

For many years, the accounting treatment for purchased goodwill has been a subject of great controversy as both the nature and source of goodwill cannot be agreed upon (Anderson, Marshall, Carlin, & Finch, 2011). While some accounting theorists define goodwill as residual of a larger asset, which is the investment, after being broken down into its identifiable constituent components (Colley & Volkan, 1988; Johnson & Petrone, 1998). Other accounting theorists, however, consider goodwill as its underlying component which includes items such as a purchase premium for items not recognised in the statement of financial position (Giuliani & Brännström, 2011; Henning, Lewis, & Shaw, 2000; Higson, 1998).

The difference in opinions on the nature of goodwill has further created the difference in opinion regarding the recognition and measurement of goodwill. According to Jennings, Robinson, Thompson, and Duvall (1996), if goodwill is considered part of the larger asset then surely goodwill should be treated as an asset, however, if goodwill is considered an underlying component then goodwill might not be considered as an asset since the components might not meet the definition of an asset. These issues have made goodwill a very complicated, vague and unsettled space (Anderson et al., 2011).

Further interest in goodwill has arisen due to the new requirements of IFRS (International Financial Reporting Standards) being distinctly different to the requirements of any of the previous reporting frameworks on goodwill (Eloff & de Villiers, 2015).

The objective of this study was to test the value relevance of goodwill both to assess the adequateness of its recognition as an asset as well as determining its value relevance based on the initial and subsequent measurement requirements of IFRS. The main research question of this study was:

Is the carrying amount of goodwill under IFRS value relevant?

The main research question can be extended further to the following research questions:

1. *Should goodwill be recognised as an asset?*
2. *Is the initial and subsequent measurement of goodwill adequate to create value relevance?*

This study is helpful to financial statement users, investors or analysts who are interested in how purchased goodwill affects the market value of equity of a firm.This study would also be useful to standard setters in evaluating the current reporting standard on how goodwill is recognised and measured at acquisition and subsequently, in a South African context. A similar study on the value relevance of goodwill has been conducted by Eloff and de Villiers (2015), who studied the difference in the value relevance of goodwill pre-IFRS adoption and post-IFRS adoption. It should be noted, however, that this more recent study eliminates the effects on any implementation and adoption issues and focuses on a longer time period of goodwill under IFRS requirements.

LITERATURE REVIEW

Defining goodwill

Studies on goodwill have dated as far back as the late 1800's and have remained a topic of argument and debate to present day (Cooper, 2007; Courtis, 1983). According to accounting theorists, both the nature and source of goodwill cannot be agreed on (Anderson et al., 2011). As a result, theorists have generated a tangled collection of irreconcilable explanations and have concluded that goodwill is vague, unclear and an unsolvable problem altogether (Anderson et al., 2011; Barton & Bloom, 2009; Gröjer, 2001).

According to Colley and Volkan (1988) and Johnson and Petrone (1998), there are two main perspectives that define goodwill; the top-down and the bottom-up perspective. According to the top-down perspective; goodwill is considered to be a residual of a larger asset, which is the investment, after being broken down into its constituent components. This perspective is in line with current reporting frameworks (Giuliani & Brännström, 2011). Goodwill, being a residual, has two further view-points:

1) The residual only exists as a result of not being able to correctly identify and measure all intangibles, whilst,
2) The residual simply exists without having any specific qualities.

According to the bottom-up perspective, goodwill is not viewed as a residual but rather viewed as its underlying component; such as a purchase premium for items not recognised in the statement of financial position (Higson, 1998). These items comprise of advantages such as personality, locality, connections, premises, reputation, skill and quality of goods (Giuliani & Brännström, 2011). According to Johnson and Petrone (1998), goodwill constitutes:

1. The excess of fair values over the book values of the acquiree's recognised net assets.
2. Fair values of unidentifiable intangible assets.
3. The fair value of the going concern element of the acquired business.
4. The fair value of the combined synergies of the acquirer and acquire; and lastly
5. The overpayment by the acquirer.

Goodwill approaches

Following the different goodwill definitions, earlier studies on goodwill focused on investigating what the content of goodwill is, in order to determine if it should be recognised as an asset or not. Following, the top-down perspective, researchers believe that since goodwill is a part of a larger asset (the investment) then surely goodwill should be recognised as an asset in line with current conceptual frameworks (Giuliani & Brännström, 2011). From the bottom-down perspective, however, since goodwill is made up of particular components which may not all meet the asset definition of the respective accounting frameworks, then goodwill could or could not be capitalised. This is because certain components within goodwill do not meet the asset definition (Giuliani & Brännström, 2011).

Based on these differences, the treatment of goodwill can be divided into 3 different approaches:

1) The immediate write off to goodwill in line with the prudence concept (Spacek, 1964). This approach was used by US standards in the 1940s and the UK standards in the 1980's.

2) Goodwill should be amortised systematically over a reasonable time period in line with the accrual concept (Seetharaman, Balachandran, & Saravanan, 2004). This approach was commonly used by most reporting frameworks prior to IFRS adoption. It was used in Canada, UK (maximum write off period of 20 years), the US (maximum write off period of 40 years), Australia (maximum write off period of 20 years) and New Zealand (a write off period between 10 and 20 years).

3) Goodwill should only be written off if there is strong evidence to support this (IASB, 2008d; Zeff & Dharan, 1994) which is consistent with the IFRS approach.

The different approaches will be discussed below.

Immediate write off approach

In support of the first viewpoint, according to Spacek (1964), goodwill should be written off immediately as amortisation and capitalisation of goodwill is an arbitrary allocation which results in unreliable income determination. Additionally, goodwill of a business acquired eventually disappears in time. This together with the fact that goodwill is incapable of being separated creates extreme difficulty in measuring goodwill, which is why goodwill is a very unique asset that cannot be treated similarly to any other asset and needs special attention. Further, since users would not place any relevance on the goodwill carrying amount, in the statement of financial position, due to measurement complexities, it would be more useful to completely write it off at acquisition.

According to Jennings et al. (1996), however, the relationship between the expected benefits from goodwill and the cost of goodwill beyond the acquisition date should be the deciding factor in determining if goodwill should be written off to equity or capitalised in the statement of financial position. If a positive relationship does exist than capitalising the goodwill to the statement of financial position would represent it more accurately. If no relationship exists than it would be better represented by an immediate write off (Jennings et al., 1996). According to Seetharaman et al. (2004) writing off goodwill would also confuse users and lead to users misinterpreting financial statements (Seetharaman et al., 2004). This is because goodwill would be an irregular and usually a once-off write off.

Amortisation approach

Subsequent to the immediate write off approach, most accounting frameworks agreed that goodwill should be recognised as an asset. This led to a large number of studies focusing on the value relevance of goodwill as an asset.

Chauvin and Hirschey (1994), McCarthy and Schneider (1995) and Jennings et al. (1996) all have consistently found a strong relationship between goodwill and firm value. This suggests that since investors recognise that goodwill reflects future economic benefits i.e., value, then it should be rightfully classified as an asset in the statement of financial position (Jennings et al., 1996). In more recent studies performed by Godfrey and Koh (2001) and Shahwan (2004), it was also shown that goodwill appears to be value relevant to users since there was a strong relationship between goodwill values and the market value of equity in firms.

These results are important as the debate on whether goodwill should be recognised as an asset or not still holds despite the evolution of reporting frameworks.

As time progressed, many reporting frameworks agreed that the value within the goodwill asset does deplete as time progresses. As a result, goodwill was generally amortised over a prescribed period or was limited to a specific period (Seetharaman et al., 2004).

Advocates of amortising goodwill recognised that since a fundamental characteristic of accounting frameworks is to match incomes to expenses, in the same period. So based on this, the cost of goodwill should be amortised as a means of matching costs with incomes actually received which arise from goodwill. Another benefit of treating goodwill this way is that it allows for accountability, under stewardship accounting, to justify management's acquisitions by showing that cash inflows from new acquisitions should outweigh the cash outflows (Seetharaman et al., 2004).

According to Jennings et al. (1996), if the value of goodwill declines for all firms and if management's decisions to impair goodwill are not aligned to that of users of financial statements to reflect this decline, then goodwill amortisation best reflects the valuation of goodwill. This is because it forces management to record a decline. This is supported by a strong negative relationship between equity values of firms and goodwill amortisation found in their study.

A problem arising from amortising goodwill, however, is the determination of an adequate useful life as the estimation of useful lives becomes less reliable as the length of a useful life increases; which renders amortisation irrelevant to users of financial statements (Clinch, 1995; Ravlic, 2003; Waxman, 2001). Evidence also showed that managers considered economic consequences when determining amortisation periods (Hall, 1993). For these reasons many reporting frameworks either limited the useful life of goodwill to a prescribed period of usually 20 years or prescribed the useful life of goodwill to be a fixed period. By limiting or prescribing useful lives, further criticism arose as opponents believed that amortising goodwill over a fixed period ignores the fact that some portions of goodwill have indefinite useful lives and can still be wholly intact after this period (Wines, Dagwell, & Windsor, 2007). Also, a fixed period such a 20 years has no relation to the consumption of goodwill; it is a "magical" selection with no basis (Wines et al., 2007). This arbitrary allocation is the main reason standard setters have moved away from goodwill amortisation as it was considered that amortised goodwill has no information value attached to it (Ravlic, 2003).

Goodwill under impairment testing approach

The development of IFRS 3

Prior to South Africa implementing IFRS in 2007, International Accounting Standards 22 (IAS 22) was used as the reporting framework for goodwill. Under this framework, goodwill was permitted to be treated under two alternate methods, the purchase method or the pooling of interest method (Eloff & de Villiers, 2015).

The purchase method required capitalising and then amortising acquired goodwill over its useful life. The value subjected to amortisation was calculated as the excess of the purchase price over the fair value of the assets less liabilities of the acquired firm (Eloff & de Villiers, 2015).

On the other hand, the pooling method did not recognise goodwill at all; instead it recognised all the assets (including intangible assets) and liabilities of the acquired firm in the acquirer's financial statements. Both these methods were criticised by users and analyst as it gave preparers the opportunity to structure transactions to achieve desired results (Eloff & de Villiers, 2015). It also meant that transactions that were so similar is nature could have been treated so economically different which compromised faithful representation (Eloff & de Villiers, 2015).

Following this criticism, the International Accounting Standard's Board (IASB) began a project in 2001 to revise IAS 22 and as a result IFRS 3 was issued. Some fundamental and distinct changes of IFRS 3 were:

1) The pooling of interest approach was abolished and only purchase accounting was allowed.

2) IFRS 3 requires that all identifiable assets, liabilities and contingent liabilities of the acquired firm must be recognised at acquisition, in determining the goodwill (IASB,2008a). These identifiable assets even relate to those internally generated intangible assets that were not recognised in the separate records of the acquired firms as per the requirements of IAS 38 (the standard on intangible assets). These include items such as a brand name, a patent or a customer relationship and reacquired rights. This was not explicitly required in any of the previous accounting standards relating to goodwill and as a result the extent of identifiable intangible assets should increase for firms with business combinations while the goodwill values of business acquisitions would decrease under IFRS.

3) The requirement to impair the goodwill balance annually instead of amortising the balance over a stipulated useful life (IASB, 2008a). Both the abolishment of the pooling method and the impairment requirement were preceded by requirements in US GAAP in 2001.

The details of IFRS 3 are discussed below.

Recognition and initial measurement

According to IFRS 3:

"***Goodwill is an asset representing the future economic benefits arising from other assets acquired in a business combination that are not individually identified and separately recognised.***"

The standard measures goodwill as the difference between the aggregate considerations transferred, any non-controlling interest in the acquiree and, in a business combination achieved in stages, the acquisition-date fair value of the acquirer's previously held equity interest less the fair value of net identifiable assets acquired at acquisition date. Accordingly, the excess paid could be attributed to items such as the fair value of the going concern element as well as the fair value of the synergies expected as such items would enable a business to earn a higher rate of return on the acquisition (IASB, 2008b). The value of an assembled workforce and potential contracts and similar intangibles will also be subsumed into goodwill since these do not qualify the identifiability criterion (IASB, 2008b).

In view of this treatment, IFRS 3 measures goodwill as a combination of the top-down approach and the bottom-up approach (Giuliani & Brännström, 2011). Since goodwill is considered as an excess of consideration transferred over the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed (IASB,2008a), it is the part of the purchase value that is not possible to allocate to the purchased identifiable assets. This Identifies with the top-down approach. Further, since there is there is a need to disclose to users information that enables users to evaluate the financial effect of the business combination, which ultimately is the disclosure behind what is hidden within the goodwill (components of goodwill) (Giuliani & Brännström, 2011), this identifies with the bottom-up perspective.

Since goodwill under IFRS contains traces of the bottom-up approach which this casts doubt on goodwill being recognised as an asset or not. The IASB considered what constitutes core goodwill and if these constituents can be controlled[67] by the entity. Further an assertion was made that goodwill does constitute factors such as a well-trained work force and loyal customers. These factors, however, cannot be regarded as controlled by the entity. For this reason, the IASB has followed this approach:

"Control of core goodwill is provided by means of the acquirer's power to direct policies and management of the acquiree." (IASB, 2008b, p. BC 323 ,BC 323)

When measuring goodwill, the consideration transferred includes the sum of the fair value of assets transferred, liabilities incurred, equity issued by the acquirer as well the fair value of any assets or liabilities arising from a contingent consideration (IASB,2008a). The standard further allows that within the measurement period of IFRS 3, the goodwill can be adjusted as to reflect new information relating to facts and circumstances that did exist at acquisition date and would have had an effect on the value of goodwill. Included in these measurement period adjustments are fair value changes to assets and liabilities and fair value changes to contingent considerations (IASB,2008a). The rules regarding contingent considerations have been among other important changes to measuring goodwill as previous reporting frameworks did allow goodwill to be recognised as a provisional value (IASB, 2008a).

Subsequent measurement of goodwill

According to IFRS 3, goodwill is not amortised subsequently; however, entities are required to test goodwill annually for impairment and whenever there is an indication that goodwill may be impaired. Impairments are carried out in accordance with of IAS 36 which is the standard that deals with asset impairments. As such, goodwill is carried at cost less accumulated impairment losses which may not be subsequently reversed (IASB, 2008d).

[67] Control is an essential requirement for an item to be recognised as an asset as per the IFRS conceptual framework.

Indicators of goodwill impairment according to IAS 36 as a minimum include:

- External information that show observable indications that an asset's value has declined abnormally in the period.
- Significant changes taking place in the year or near future with an adverse effect on the entity
- A decline in market interest rates or rates of return on assets and when the carrying amount of the net assets of an entity is more than its market capitalisation (IASB,2008d).

From internal sources of information, these indicators include:

- Evidence of physical damage and obsolescence of an asset
- Significant changes taking place in the year or near future with an adverse effect on the entity such the asset becoming idle
- Evidence that the economic performance of an asset will be worse than expected
- Total dividends declared from an investment being greater than its total comprehensive income, and
- The carrying amount of an investment in its separate financial statements exceeding the carrying amount in the consolidated financial statements in the investees records including goodwill (IASB, 2008d).

The process for impairment testing is a two-step mechanism where the first step is to a allocate goodwill to cash generating units (CGU's). The second step is then recording the difference between the recoverable amount and the carrying amount of the cash generating unit as an impairment loss, if the recoverable amount is less than the carrying amount (IASB, 2008d).

The impairment testing requirement has eliminated many concerns marked with the previous two approaches of accounting for goodwill. According to Donnelly and Keys (2002), goodwill impairments adequately capture goodwill value declines in a more meaningful manner than previous accounting treatments. From a statement of financial position perspective; the valuation of goodwill in terms of IFRS is a better assessment of asset value as goodwill declines are not automatic but instead takes consideration of individual entity circumstances. While from a statement of comprehensive income perspective, goodwill valuations will be more closely aligned to real economic value rather than an arbitrary amortisation calculation. Both of these values should provide more useful and relevant information to users (Schipper, 2005; Wines et al., 2007).

This new and fairly different measurement method is not viewed as positively by all researchers as many implementation and application issues are prevalent. Among the many issues is the excessive time and cost of carrying out impairment tests (Massoud & Raiborn, 2003; McGreachin, 1997; Watts, 2003). This promotes management to identify cash generating units at higher levels (by allocating more assets to a CGU, whereby, the CGU is not the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets) which are not necessarily correct, in order to save time and costs. This could also result in goodwill recorded on the statement of financial position that are not impaired as management could be incentivised not to record impairments at all (McGreachin, 1997).

The provisions for impairment testing are also marked with huge complexities, both from a technical and judgmental perspective (Khokan Bepari, F. Rahman, & Taher Mollik, 2014; Wines et al., 2007). These complexities include identification of CGU'S, particularly when an acquired entity has many subsidiaries or divisions (Wines et al., 2007), allocating goodwill to these CGU's (Hayn & Hughes, 2006; Petersen & Plenborg, 2010; Wines et al., 2007), determining the method of impairment, determining the key estimates and assumptions such as the appropriate discount and growth rates, terminal values and forecast periods (Khokan Bepari et al., 2014) and valuing assets that are not homogeneous to any other (Stefano Zambon, Caruso, Ferrari, & Pisano, 2016). To no surprise, impairment testing of goodwill has been identified as one of the five most challenging requirements of the IFRS transition (Hoogendoorn, 2006).

These complex impairment testing requirements are also highly reliant on management estimates and judgements which naturally leads to the estimates being subject to management bias, ambiguity and discretion which are open to abuse (Cearns, 1999; Hoogendoorn, 2006; Massoud & Raiborn, 2003; Watts, 2003; Wines et al., 2007). Studies have shown that management subjectivity and bias have led to opportunistic timing and amounts of impairment write offs (Beatty & Weber, 2006; Hayn & Hughes, 2006; Ramanna & Watts, 2012; Zhang & Zhang, 2015). According to Hayn and Hughes (2006) these write offs can be lagged by an average of three to four years.

Disclosure

When goodwill arises, the entity needs to disclose a qualitative description of the factors that make up goodwill such as the synergies expected to arise from the business combination as well as intangible assets that do not qualify for separate recognition (IASB,2008a). The entity also needs to disclose, in the notes of financial statements, a reconciliation of gross goodwill and accumulated impairment losses from the beginning of the period to the end of the reporting period; disclosing increases, transfers to disposal groups, exchange differences and impairment losses on goodwill as current period movements.

Since goodwill needs to be allocated to a CGU in order for it to be tested for annual impairments. The entity should disclose the description of each CGU and the change in composition of the CGU if applicable (IASB, 2008d). If an impairment loss has taken place in the period then the related impairment loss needs to be disclosed together with events and circumstances that led to the impairment (IASB, 2008d). These disclosures need to be disclosed for both segmental and non- segmental reporting (IASB, 2008d).

The entity should also disclose the recoverable amount stating if it is the fair value less cost to sell or value in use irrespective of an impairment taking place or not (IASB, 2008d). If the recoverable amount is the fair value less cost to sell, the entity needs to disclose the level of the fair value hierarchy together with valuation techniques and key assumptions used to determine the fair value. On the other hand, if the recoverable amount is the value in use then the discount rates and assumptions and estimates used to determine this value need to be disclosed (IASB,2008d).

Additionally, if circumstances arise where an entity needs to change a key estimate relating to the determination of the recoverable amount of the CGU, which would cause the unit's carrying amount to exceed its recoverable amount; additional disclosures are also then required. These disclosures consist of disclosing the amounts by which the unit's recoverable exceeds its carrying amount, the value assigned to the key assumptions and the amount by which the value assigned to the key assumption must change after incorporating any consequential effects (IASB, 2008d).

Value relevance studies of goodwill under IFRS

The adoption of IFRS was the biggest step toward global accounting harmonisation has received much focus in the recent decade and has had a mixed reception. Many researchers perceive the adoption as a positive step towards a convergence of accounting standards which improves information content and disclosures as well as enhances comparability and intermediation in capital markets (Barth, Landsman, & Lang, 2008; Horton, Serafeim, & Serafeim, 2013; Schipper, 2005). Other researchers, however, have seen many disadvantages to the adoption, which include the extensive use of fair values and complex institutional factors surrounding its adoption (Ball, 2006; Sahut, Boulerne, & Teulon, 2011; Schipper, 2005). The actual value relevance studies on the IFRS adoption have had mixed results as well. These results are mainly attributable to the absence of suitable unified enforcement mechanisms as well as country specific legal, regulatory, political and market factors (Ball, 2006; Devalle, Onali, & Magarini, 2010; Horton & Serafeim, 2010; Sahut et al., 2011; Schipper, 2005).

Since intangible assets have such pronounced valuation information attached to it, the adoption of IFRS has naturally led to a large amount of intangible asset value relevance studies focusing on the pre-IFRS as opposed to post-IFRS relevance. Majority of these studies were conducted in an Australian setting where the previous goodwill standard (prior to IFRS adoption) required goodwill to be amortised over a period not exceeding 20 years. While for intangibles, both acquired and internally generated intangibles were allowed to be recognised and could even be revalued upwards on an annual basis.

Goodwin, Ahmed, and Heaney (2008) found the IFRS change to goodwill had increased in relevance, post-IFRS, in Australia because of the amortisation reversal transactions. This is consistent with investors' perceptions of value changes for this asset. This study used an adaptation to the Ohlson model. Similarly Chalmers, Clinch, and Godfrey (2008) also found goodwill to be more relevant due to the removal of the subsequent amortisation requirement in Australia. These results are consistent to those of Oliveira, Rodrigues, and Craig (2010) who also found that the relevance of goodwill has increased with IFRS adoption due to the annual impairment testing requirement instead of the amortisation requirement. This study tested the value relevance of intangibles over the pre-IFRS and post-IFRS adoption periods in Portugal, using the Ohlson model. Sahut et al. (2011) also did a pre-IFRS and post-IFRS comparison to the value relevance of intangibles in European countries including the UK, France, Norway, Belgium & Luxembourg, Sweden, Italy, Finland, and Ireland using an adaptation of the Ohlson model. The results show that many firms have reclassified all intangible assets that no longer meet the intangible asset definition as goodwill. As a result, investors pay less attention to goodwill. The study owes the difference in results from country to country to constitutional factors as well as non-compliance to IFRS. Ji and Lu (2014) found no improvement to the relevance of goodwill post -IFRS adoption.

In studies focusing on the value relevance of goodwill impairment, Ahmed and Guler (2007) found that goodwill and goodwill impairments are value relevant because goodwill is closely related to economic factors. The study further found both goodwill and goodwill impairment is more value relevant for firms with greater number of segments. Similarly, Duangploy, Shelton, and Omer (2005) also found that goodwill impairments are not completely ignored by users as was the previous amortisation requirement. There are multiple reasons for this: firstly, the impact on impairment losses is large enough to affect an entity's debt to equity ratio that signal solvency risks. Secondly, goodwill impairments are disclosed as segmental reporting which as shown to be more useful than consolidated data. Lastly as opposed to the arbitrary amortisation calculations, impairments are based on fair values which are more relevant in current volatile markets. Both these studies used the adaptations of the Ohlson model to test the value relevance.

Contrary to this, Hayn and Hughes (2006), using a hazard model similar to bankruptcy prediction models, found that the information in financials to predict impairments are limited due to the low quality of segmental disclosures. According to this study, certain acquisition characteristics such as, the premium paid, percentage of the purchase price assigned to goodwill and the mode of consideration are in fact better goodwill predictors. Similarly, according to Magni, Malagoli, Bini, and Della Bella (2007), goodwill impairments show limited value relevance as declining share prices prior to the disclosed impairment have already captured investor expectations and the disclosed impairment is merely a rubber stamp of these expectations. This study was performed by surveying other studies.

METHODOLOGY

Background to value relevance studies

The primary objective of the IASB in developing IFRS is to provide useful information for investors, lenders and other creditors to make future economic decisions (IASB, 2008c). As a result of Neoclassical economics, the purpose of accounting information was seen to be information that is predictive of market security prices, rather than being information reflecting past performances of profit making enterprises which had been its previous function (Beaver, 1971). Based on this, accounting information is seen to be value relevant if it has some relation to capital markets, i.e. to share prices or market values (share price multiplied by the number of total equity shares outstanding) of securities (Wyatt, 2008).

Value relevance studies use various valuation models to structure their tests, and typically use equity market value as the valuation benchmark to assess how well particular accounting amounts reflect information used by investors (Barth, 2000; Swartz & Negash, 2006). The tests often focus on the coefficients on the accounting amounts in the estimation equation (Barth, 2000). These studies follow an autoregressive process under the premise that past values (those reflected in financial statements) have an effect on current market prices. This follows from the efficient market theory that assumes investors are free in making their decisions and these investors' decisions affect prices, or in other words, that the stock prices must reflect the preferences of market participants (Abdel-Khalik, Wong, & Wu, 1999). The stock market should therefore be free from manipulation by the authorities and restrictions on trading must not be too strict or subject to authorities' discretion (Abdel-Khalik et al., 1999).

Value relevance studies are particularly of interest to a wide spectrum of individuals including; standard setting bodies such as the IASB, regulators including security exchanges and reserve banks and users of financial statements because it usually addresses broad questions raised by these groups (Barth, 2000).

Research method

This study has tested value relevance by means of association in a statistical manner. Value-relevance research determines the association between accounting information and some measure of value. The objective is to provide an assessment of the usefulness to investors of accounting information in valuing the firm. In line with existing research on the value-relevance of accounting information, this study used regression analysis to test and compare the value relevance of total net goodwill, by using the valuation framework developed by Ohlson (1995) together with its later refinements by Barth, Beaver, and Landsman (2001). This theoretical model, which has been used extensively in the value-relevance literature, suggests the market value of securities of a firm is a function of the book value of equity and earnings of the firm, operationalised in model 1 below.

Model (1): $MVE_{i,t} = \alpha_0 + \alpha_1 BVE_{i,t} + \alpha_2 NI_{i,t} + \varepsilon_{i,t}$

Where:

MVE *= the market capitalisation of firm* i *3 months after year-end reporting date* t

BVE[68] *= the book value of firm* i *net assets at year-end reporting date* t

NI[69] *= net income of firm* i *for year* t

εi,t = *Book to market residual.*

In this model, the market value of equity is a summary measure of information relevant to users while the book value of equity and net income are summary measures of accounting information reflected in financial statements (Barth & Clinch, 1996). Earnings is a proxy for variables in the statement of financial position omitted due to it not being recognised by accounting frameworks(Barth, 2000; Barth & Landsman, 1995).This model is consistent with the methodology followed by Francis and Schipper (1999), Al Jifri and Citron (2009), Bugeja and Gallery (2006), Bugeja and Gallery (2006); Sami, Wang, and Zhou (2011); (Sami & Zhou, 2004), Oliveira et al. (2010).

By adapting model (1), the book value of equity can be can isolated in its different constituent components in order to assess value relevance of each individual component of equity on market prices which is operationalised in model (2) In model (2), one can assess if total intangible assets are value relevant by separating it from the total book value of equity as follows.

[68] The book value of equity (BVE) is the total equity disclosed in the statement of financial position.
[69] The net income (NI) is the profit/loss for the period after interest , tax, discontinued operations, preference share dividends, and minority interests which is attributed to ordinary shareholders.

Model (2): $MVE_{i,t} = \alpha_0 + \alpha_1 BVExIA_{i,t} + \alpha_2 NI_{i,t} + \alpha_3 TIA_{i,t} + \varepsilon_{i,t}$.

Where:

BVExIA= *the book value of equity less the amount of recognised intangible assets (including goodwill) per share of firm I at the end of year t;*

TIA[70]= *total intangible assets including goodwill at year-end reporting date t for firm i*

Whilst in model (3) the value relevance of identifiable intangible assets as well as goodwill can be assessed for value relevance separately by following the same approach used in model (2). These adaptations are consistent with that used by Bugeja and Gallery (2006), Al Jifri and Citron (2009) Dahmash, Durand, and Watson (2009) Oliveira et al. (2010) Jennings et al. (1996), Choi, Kwon, and Lobo (2000) and Henning et al. (2000) in their studies on intangibles who used either the same or similar adaptations in their studies.

Model (3): $MVE_{i,t} = \alpha_0 + \alpha_1 BVExIA_{i,t} + \alpha_2 NI_{i,t} + \alpha_3 IIA_{i,t} + \alpha_4 GWT_{i,t} + \varepsilon_{i,t}$.

Where:

GWT[71]= *total net goodwill*

IIA= *identifiable intangible assets*

This model assumes that asset, liability, and income amounts are implicitly assessed by investors when valuing as users decisions determine share prices based on the efficient market hypothesis (Abdel-Khalik et al., 1999; Klimczak, 1999). By making this assumption, accounting amounts summarise information that investors use to set share prices (Barth, 2000).

The independent variables are all those variables to the right of model (1), (2), (3), whilst the dependent variable is the share price of the firm lagged for 3 months. The lagging of the share price allows for sufficient time to deflate any market reactions to earnings announcements.

A common problem relating to this type of study is a spurious effect of scale, as large security prices are often related to large book values and large earnings (Brown, Lo, & Lys, 1999).In order to mitigate this size-related heteroscedasticity, all variables (including the intercept) were scaled to a per share values, in line with other studies.

[70] Total intangible assets (TIA) is the sum of the carrying amounts of the recognised identifiable intangible assets and goodwill in the statement of financial position.

[71] Total net goodwill *(GWT)* is the carrying amount of goodwill in the statement of financial position. This is the cost of goodwill less accumulated impairment charges together with foreign exchange movements.

Sample

This study focused on the top 100 companies consistently listed on the Johannesburg Stock Exchange (JSE) between 2008 -2015[72] and which had at least one goodwill acquisition between the period of 2010 and 2013. This meant that only group companies were included in the sample. A listing of the top 100 companies for the sample period was obtained directly from the JSE research data division. Microsoft excel was the used to obtain the recurring listed companies for the sample period of 2008 to 2015. The annual financial statements for each of these recurring companies were then inspected to determine if goodwill acquisitions took place between 2010 and 2013. Only those firms that had goodwill acquisition in this period were included in the sample

Data

Data for models (1) - (3) was collected (from Inet BFA) for every year in which a firm had an acquisition (between 2010-2013) and additionally the two year's prior to any acquisition and for a period of two years post an acquisition. This ensured only goodwill intensive entities were included in the study. This data was collected and captured in Microsoft Excel.

Since there was a pooling of observations of a cross section of firms over several time periods, the data collected resulted in panel data. This type of data allows for a greater number of data points, which enables more informative data, less collinearity between variables, more degrees of freedom and more efficiency (Oliveira et al., 2010). Panel data is also seen to be more advantageous, as opposed to time series data or conventional cross sectional data, as it allows for measuring effects which are undetectable in time series data. (Baltagi, 2008; Hsiao, 1986).

RESULTS

Once the data was obtained, descriptive statistics and classical regression analysis was performed. The results are discussed below.

Descriptive statistics

Table 1

	Mean	Median	Standard Deviation	Minimum	Maximum
MVE- Share price 3 months after year end	116.874	109.270	70.701	20.249	294.294
BE-net value of assets	49.801	34.607	43.541	5.038	156.333
NI-net income	8.314	6.305	6.903	.920	27.635
Eit- book to market residual	59.616	44.171	50.844	-4.443	185.466
TIA- total intangible assets including goodwill	7.963	4.102	8.838	.319	35.421
BVExIA-book value of equity less total intangible assets	40.220	26.560	40.104	-3.537	137.326
GWT-Net goodwill	4.405	2.269	4.518	.127	14.509
IIA- identifiable intangible assets	3.465	1.537	4.991	.039	20.492

[72] Consistent listings were used to avoid market pricing movement due to listings and de-listings.

Table 1 presents the descriptive statistics for all the variables. There were a total of eight negative observations for the book to market residual. It should be noted, however, that for these observations, only one instance reflected a market value of shares which is significantly less than the book value. This further confirms that since the statement of financial position does correlate with the market value of equity, the research model being used to test goodwill included in the statement of financial position would be valid. For identifiable intangibles (IIA) and total net goodwill (GWT), the median results were (1.537 and 2.269 respectively)[73].This result shows that total net goodwill represents a large portion of total intangible assets (TIA) which amounts to 4.102. On closer inspection, it was noted that even though total net goodwill represents a greater portion of total intangible assets, all firms within the sample did have some sort of identifiable intangible assets.

Regression results and analysis

The classical regression results, using the Ohlson model, relating to the value relevance of net goodwill is presented below.

Model	**Unstandardised Coefficients**			**T**	**Sig.**	**Collinearity Statistics tolerance**
			Standardised Coefficients			
	B	**Beta**				
(Constant)	43.117	7.968		5.412	.000	
BVExIA_book value of equity less recognised intangible assets	.321	.180	.180	1.782	.077	.393
NI_net income	4.014	1.079	.390	3.720	.000	.364
IIA_identifiable intangible assets	3.335	1.068	.231	3.123	.002	.733
GWT_Net goodwill	3.484	1.172	.220	2.972	.004	.729

a. Dependent Variable: MVE_Share price 3 months after year end

Model (3) separates total intangibles into identifiable intangible assets (IIA) and total net goodwill (GWT) to test the value relevance between identifiable and non-identifiable intangible assets which is relevant to this study. The results show that both identifiable intangible assets and total net goodwill are significant (*p*=0.002 and *p*=0.004 respectively).

According to Beaver (1971) if an accounting number (an independent variable) is significantly related to the dependent variable, then it is regarded as value relevant. Based on this, since net goodwill is significant, it is value relevant to users of financial statements.

[73] There is an insignificant difference between the median of total intangible assets and the sum of the median of identifiable intangibles and total net goodwill. This difference arises from the statistical programme determination of median rather than mean values

This answers the research question of this study positively. In extending the main research question, it also further implies that:

1. *Goodwill should rightfully be recognised as an asset and*
2. *The initial and subsequent measurement requirements of goodwill are adequate to create value relevance?*

This result is consistent with earlier studies performed by Chauvin and Hirschey (1994), McCarthy and Schneider (1995), Jennings et al. (1996) Godfrey and Koh (2001), Shahwan (2004), Dahmash et al. (2009) who investigated if goodwill was relevant in order to determine if goodwill should be recognised as an asset or if goodwill should be written off. Similarly, this study confirms that goodwill should be recognised as an asset since investors recognise that goodwill reflects future economic benefits i.e. value. Accordingly, goodwill should be rightfully classified as an asset in the statement of financial position (Jennings et al., 1996).

This result is also consistent with more recent studies performed by Oliveira et al. (2010) Goodwin et al. (2008), Chalmers et al. (2008),Ji and Lu (2014), Sahut et al. (2011), who studied the value relevance of goodwill pre-IFRS and post-IFRS adoption, respectively. The results for the pre-IFRS and post-IFRS value relevance studies have consistently found that goodwill is relevant in both periods.

According to Ellis (2001), from an investors point of view, goodwill is the premium paid for a business which signifies value creation to be obtained from the acquisition. So despite the changing reporting frameworks, the market sees through the accounting fog and is only interested is the value which is implicit in the goodwill (Ellis, 2001). This interest in goodwill, by the market, can be seen in all the above mentioned studies since there is a strong relationship between reported goodwill and the market value of equity. Further, the relevance in goodwill is seen to be relevant from as early as 1982 to as recent as 2015, under the multiple different reporting frameworks examined. The reporting frameworks studied ranged from amortising goodwill recognised (basic purchase accounting-pre IFRS) over various write off periods, not amortising goodwill or impairing goodwill at all and lastly impairing goodwill when needed under the stricter purchase accounting in terms of IFRS 3. This proves that despite the different accounting rules, the market sees through this and manipulates the information accordingly to assess the value implicit in the reported goodwill. This means that goodwill amounts reflect information used by investors which makes goodwill value relevant and support the asset recognition of goodwill.

According to Oliveira et al. (2010) Goodwin et al. (2008), Chalmers et al. (2008), and Bepari and Mollik (2017) it was found that goodwill was not only value relevant under IFRS, but was also more relevant than the previous reporting frameworks (Portuguese and Australian GAAP). From the links made between the studies conducted, researchers attribute this to the IFRS requirement of impairing the asset when a need arose as opposed to the previous amortisation requirement.

Another contributing factor for goodwill being increasingly relevant is due to the IFRS 3, at acquisition accounting, requirements. Under this standard, goodwill only consists of unidentifiable components since all identifiable assets and liabilities need to be separately recognised in the statement of financial position (IASB, 2008a). This would suggest that goodwill represents only the future value to be derived from the acquisition (Ellis, 2001), and users could better asses the future economic benefits associated with it as all other identifiable assets can individually be analysed.

CONCLUSION

Results

The test results for this study showed that total net goodwill[74] is value relevant. This result further implies that goodwill should rightfully be recognised as an asset and that the current reporting requirements on initial and subsequent measurement are adequate to create value relevance of goodwill. These results were expected and are justifiable given the information content of goodwill and the results with prior studies which consistently found total net goodwill to be relevant. These results confirm that goodwill should be recognised as an asset since investors recognise that goodwill reflects future economic benefits (Jennings et al., 1996).

In line with other studies who found similar results post-IFRS adoption, possible reasons for total net goodwill being value relevant is the requirement of IFRS not to systematically amortise goodwill but instead to impair the asset when a need arises (Goodwin et al., 2008; Oliveira et al., 2010).This eliminates the arbitrary annual amortisation and conveys a more meaningful measurement of goodwill. Another contributing factor for goodwill could be due to the IFRS 3 requirement of separately identifying assets and liabilities at acquisition. This results in goodwill only consisting of unidentifiable components since all identifiable assets and liabilities need to be separately recognised in the statement of financial position. This means that goodwill represents only the future value to be derived from the acquisition and is thus value relevant (Ellis, 2001). From the results it can also be seen that despite the challenges in carrying out impairment tests and the excessive timing and costs, this approach of measuring goodwill still proves to be value relevant.

Areas for future studies

Since the total net goodwill is seen to be value relevant to users in this study and since the study did not test the relevance of goodwill impairments, a possible area for study is the effects of goodwill impairments on market prices. This would test the relevance of the impairment requirement under IFRS 3.Similar studies of this nature were performed by Ahmed and Guler (2007) and Duangploy et al. (2005), in Australia and the UK respectively, however no similar studies have been conducted in a South African context.

Additionally, since identifiable intangible assets were also found to be significant. Further studies in this area should be considered, particularly on testing the relevance of the different types of intangible assets in terms of IAS 38 (International accounting standards 38). Similar studies have been performed by Oliveira et al. (2010) and (Sahut et al., 2011) in Portugal and a variety of European countries, however, no similar studies have been conducted in a local context.

[74] Total net goodwill *(GWT)* is the carrying amount of goodwill in the statement of financial position. This is the cost of goodwill less accumulated impairment charges together with foreign exchange movements

Limitations of study

This study was conducted in a South African only context. Further only firms within the JSE top 100 companies (consistently listed between 2008- 2015) that have had goodwill acquisitions between the periods of 2010-2013 were looked at. Thus, care should be taken in generalising the results to other companies in South Africa (including companies that have internally generated goodwill that is not recognised) and stock markets in other countries due to regional economic influences.

This study does have additional limitations. It should be noted that the effect of price movements that are unrelated to goodwill could not be controlled for in this period. These price movements could have arisen due to the changes in the general market conditions that were time specific, industry specific trends or the even just firm specific movements that are not related to information presented in financial statements.

It is however reasonable to assume that capital market participants collectively form their opinions regarding the valuation of shares with all the information at their disposal (Eloff & de Villiers, 2015) and since the entities within the sample consisted of only publicly listed entities, a bulk of this information would come from financial statements. Further since business combinations are an important means of value creation to investors, users would be interested in goodwill disclosures (Ellis, 2001).

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FAC019 **HIV/AIDS related disclosures in South African mining companies' Integrated Reports: Initial insights**

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ABSTRACT:
This research investigates the disclosure of HIV/AIDS in the Integrated Reports of 29 Johannesburg Stock Exchange (JSE) listed South African mining companies. A disclosure checklist was developed, informed by: the prior literature, the King-III report on corporate governance, the Global Reporting Initiative's G4 Reporting Guidelines, and the JSE's Social Responsible Investment Index (JSE SRI). The research did not attempt to assess the quality of disclosure, but rather assessed the extent of HIV/AIDS related disclosures. The research also distinguished between positive and negative disclosures in order to evaluate the objectivity of the disclosures.

There is currently no framework that specifically addresses how a company ought to identify and disclose HIV/AIDS related information to users of integrated reports. However, existing frameworks can be tailored to determine what HIV/AIDS related information might be relevant for users.

The results revealed that, although HIV/AIDS is a significant concern to the South African mining industry, there is insufficient detail presented to users. The reports appear biased towards positive information regarding the respective companies' effect of HIV/AIDS and related company actions (such as prevention and education initiatives). Unfortunately, the disclosures provided often fail to explain the interconnection between HIV/AIDS and the company's strategy. Some important disclosures are omitted entirely, thereby detracting from helping users understand the sustainability of the entity as it makes it difficult for users to discern how the entity manages the value creation process regarding human and relational capital.

Key words: HIV/AIDS; mining; integrated reporting; sustainability reporting

INTRODUCTION

The current business environment requires corporates to be aware of their corporate responsibility and act in a manner that is fitting of the society in which it operates. This is especially true in South Africa and the mining industry (Carels et al., 2013, Hahn, 2012, Raemaekers et al., 2016). The mining industry is a major employer in South Africa as well as a significant contributor to the tax base (PwC, 2012, PwC, 2014, PwC, 2015a).

A substantial threat to the mining industry is the Human Immunodeficiency Virus (HIV) and Acquired Immunodeficiency Syndrome (AIDS). The total number of people living with HIV/AIDS in South Africa increased from an estimated 4 million in 2002 to 6 million by 2015. In 2015, an estimated 11,2% of the total population was HIV positive (Africa, 2015). Moreover, a survey conducted by Ellis (2007) revealed that the mining industry has been most severely affected by the HIV/AIDS epidemic. With King-III and the International Integrated Reporting Council (IIRC) calling for more substantial transparency and integration of both financial and non-financial information (IOD, 2009, IIRC, 2013), it seems logical that HIV/AIDS would feature highly in mining companies' integrated reports. This paper aims to assess whether this is indeed the case.

Despite the significance of HIV/AIDS (globally as well as locally) (AIDS Foundation SA, 2015), there is currently no specific framework dealing with how a company ought to identify relevant information and disclose material items that would be useful to users of the integrated reports (IOD, 2009, Global Reporting Initiative (GRI) 2011, IIRC, 2013). While the Johannesburg Stock Exchange (JSE) Socially Responsible Investment (SRI) Index provides *core* and *desirable* indicators that are assessed in ranking companies for this index, it is not a comprehensive framework (SRI, 2014). As a result, there is considerable diversity in how companies identify and report on key social and governance issues, including their reporting on the impact of HIV/AIDS for their business model and long-term sustainability (Solomon and Maroun, 2012a, PwC, 2015b).

With a lack of practical and helpful guidance on various specific issues – including how and what to report on HIV/AIDS – there has been a documented trend in 'greenwashing' by companies preparing integrated reports (Solomon et al., 2013). While one could accuse these companies with the usual rhetoric that it is entirely by design, perhaps some companies genuinely do try but do not have the skills and support they need. The academic community should step in and provide the guidance and practical help so that companies can better their reports (Hahn and Lülfs, 2014, Carels et al., 2013, Atkins and Maroun, 2015).

As a result, this research adds to the current body of knowledge that investigates integrated reporting and provides empirical evidence regarding one important aspect of a social impact that should be presented in integrated reports – HIV/AIDS.

LITERATURE REVIEW

An integrated report is an account of the respective company's performance over the previous financial year with some forward-orientated information. This report is not merely from a financial perspective, but includes non-financial information. The IIRC (2013) defines an integrated report as:

> "[A] report [that] aims to provide insight about the resources and relationships used and affected by an organization – these are collectively referred to as "the capitals"… It also seeks to explain how the organization interacts with the external environment and the capitals to create value over the short, medium and long term" (IIRC, 2013).

In other words, an integrated report should give a clear and concise explanation of a company's business model, strategy, associated risks and long-term sustainability (IIRC, 2013, IOD, 2009). Similarly, King-III provides a framework for preparers to use to develop their integrated reports (IOD, 2009). Both frameworks, the IIRC and King-III, are principle-based frameworks; the IIRC framework is an international organisation while King-III was locally developed (South Africa). Preparing an integrated report, under King-III, has been a requirement of JSE listed companies for several years now, with the JSE requiring listed companies to prepare an integrated report or to explain why they have not done so (Maroun et al., 2014).

King-III, more formally the King Code on Corporate Governance, does not provide a comprehensive list of disclosure requirements for every possible financial and non-financial element. This is not, typically, a problem for the financial elements because there are well-established accounting standards issued by the International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB) in the U.S.A. that preparers can utilise. However, non-financial elements prove much more difficult due to the, almost, unquantifiable volume of different elements and the subjectivity of the required disclosures. This volume and non-standardised nature of non-financial disclosures and associated reporting elements results in codifying non-financial performance and reporting difficult. In this context, several sustainability-reporting frameworks/guides have emerged[75] (IIRC, 2013, IOD, 2009, Atkins and Maroun, 2015, de Villiers et al., 2014).

The academic research has produced mixed results on the usefulness of these reporting frameworks. De Klerk and de Villiers (2012), for example, find that companies with more detailed non-financial disclosures outperform their peers in terms of return on equity. The researchers interpret these findings as evidence that non-financial disclosures provide investors with a better understanding of an organisation's risks and, as such, lower informational asymmetry. These results are confirmed by a more recent study by de Villiers and Marques (2016) which affirms the positive correlation between the level of sustainability disclosures and financial performance. There is, however, also a possibility of sustainability reporting being used to manage stakeholders' expectations rather than promote real change in business practice (Solomon et al., 2013, Flower, 2015).

Reviews of some of South Africa's most recent integrated reports reveal considerable repetition, generic disclosures and content which is irrelevant for understanding an organisations' risks and their value creation process (PwC, 2015a, Solomon and Maroun, 2012b). These practices can make it challenging for users to identify and analyse relevant information for making decisions (Atkins and Maroun, 2014). As a result there is some

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[75] The Balanced Scorecard, the Triple Bottom Line report and Sustainability Reporting are a few examples of other sustainability reporting frameworks / guides DE VILLIERS, C., RINALDI, L. & UNERMAN, J. 2014. Integrated Reporting: Insights, gaps and an agenda for future research. *Accounting, Auditing & Accountability Journal,* 27**,** 1042-1067, ATKINS, J. & MAROUN, W. 2015. Integrated reporting in South Africa in 2012: Perspectives from South African institutional investors. *Meditari Accountancy Research,* 23**,** 197-221, ADAMS, C. A. 2015. The International Integrated Reporting Council: A call to action. *Critical Perspectives on Accounting,* 27**,** 23-28.

evidence to suggest that sustainability/integrated reporting is not always value relevant (Marcia et al., 2015) and useful for enhancing investors' or other stakeholders' understanding of the reporting entity (see Adams, 2013, Gray et al., 1996, Atkins and Maroun, 2015).

Can the repetition and inclusion of irrelevant information be blamed solely on preparers of integrated reports? Impression management is often offered as the explanation for poor quality sustainability/integrated reporting (Solomon et al., 2013). This paper adopts a less critical perspective. In particular, when it comes to issues such as HIV/AIDS the applicable reporting frameworks do not include guidance. Consequently, it is difficult for companies to determine exactly what to include in / exclude from their integrated reports (to achieve a balance of information) and the level of detail required to meet stakeholders' information needs while trying to be clear and concise (IIRC, 2013, IOD, 2009).

A framework for reporting on HIV/AIDS

A well-written integrated report should be able to convey to readers how the company uses all six forms of capital, namely: financial, intellectual, natural, social and relationship, manufactured and human capital, to create sustainable returns (Eccles and Serafeim, 2014, IIRC, 2013, Wostmann et al., 2017 forthcoming, Adams, 2013). The six capitals, as defined by the IIRC, are provided below.

Table 1

Capital	**Definition**
Financial	The pool of funds that is: • available to an organization for use in the production of goods or the provision of services • obtained through financing, such as debt, equity, or grants, or generated through operations or investments
Intellectual	Organizational, knowledge-based intangibles, including: • intellectual property, such as patents, copyrights, software, rights and licences • "Organizational capital" such as tacit knowledge, systems, procedures and protocols
Natural	All renewable and non-renewable environmental resources and processes that provide goods or services that support the past, current or future prosperity of an organization. It includes: • Air, water, land, minerals and forests • Biodiversity and eco-system health
Social and relationship	The institutions and the relationships within and between communities, groups of stakeholders and other networks, and the ability to share information to enhance individual and collective well-being. Social and relationship capital includes: • Shared norms, and common values and behaviours • Key stakeholder relationships, and the trust and willingness to engage that an organization has developed and strives to build and protect with external stakeholders • Intangibles associated with the brand and reputation that an organization has developed • An organization's social licence to operate
Manufactured	Manufactured physical objects (as distinct from natural physical objects) that are available to an organization for use in the production of goods or the provision of services, including: • buildings • equipment • infrastructure (such as roads, ports, bridges, and waste and water treatment plants).

	Manufactured capital is often created by other organizations, but includes assets manufactured by the reporting organization for sale or use when they are retained for its own use.
Human	People's competencies, capabilities and experience, and their motivations to innovate, including their: • alignment with and support for an organization's governance framework, risk management approach, and ethical values • ability to understand, develop and implement and organization's strategy • loyalties and motivations for improving processes, goods and services, including their ability to lead, manage and collaborate

(IIRC, 2013)

Reporting on the six capitals should benefit all parties by not prejudicing current stakeholders at the expense of future stakeholders or vice versa (IOD, 2009, IIRC, 2013, Atkins and Maroun, 2015). In order to achieve this, companies need to understand all the forms of capital that are relevant for their business model. Companies already have extensive experience reporting on financial and manufactured capital. Businesses have also made progress on identifying and reporting on environmental issues (natural capital) (de Villiers and van Staden, 2006). However, reporting on human and social and relationship capital is more complex.

These capitals often overlap and can be difficult to understand. They are even more difficult to articulate in a succinct manner especially given the fact that there is little technical guidance dealing with social matters and few academic papers dealing with reporting on social issues (Hill and Maroun, 2015). This provides an opportunity for companies and academics to drive the development of a social reporting framework that complements the guidance provided by the GRI, King-III and IIRC. This framework needs to deal with how to identify, analyse and disclose relevant and important information on these capitals. This is applied in the context of reporting on HIV/AIDS in more detail below.

Illustration of the six capitals in the context of HIV/AIDS reporting

Many may assume that the six forms of capital may compete with one another. However, on deeper reflection and analysis, it is more likely that they depend on one another to a greater extent than previously thought (King, 2016). In order for companies to gain from learning curves, expertise and reliability of the workforce, they need to ensure their workforce is healthy (human capital). Absenteeism can also have major effects on planning, production and productivity (manufactured and financial capital). This is mostly due to an increase in planned and unplanned medical visits of employees who are HIV positive as opposed to those who are HIV negative. Further, as the syndrome progresses, the actual productivity of the HIV positive employee decreases as his/her immune system becomes less capable of defending the body against illness (Greer et al., 1980, Israelstam, 2011, Collins and Leibbrandt, 2007, Habyarimana et al., 2010, UNAID, 2006, UNAID, 2013, Sonnenberg et al., 2011).

The social implications of the disease must also be considered. Unfortunately, people infected with HIV continue to be stigmatised (UNAID, 2006, UNAID, 2013). This poses a serious challenge for human resource management and poses an ethical issue which companies, in terms of King-III and King-IV, will need to tackle (IOD, 2009, IOD, 2016). There are also consequences at the operational level. The stigmatism associated with HIV/AIDS has the potential to undermine collegiality in the workplace, team interaction and the establishment of effective clan controls necessary for efficient/effective management (see UNAID, 2006, Ouchi, 1979, Botten, 2009).

The impact of and how to report on HIV/AIDS

The case for HIV/AIDS reporting is obvious. As explained above, the pandemic has serious implications for the South African economy and society as a whole (UNAID, 2006). It is posited that HIV/AIDS is more prevalent among un- and semi-skilled workers than among highly skilled workers. With the mining industry employing a majority of un- and semi-skilled workers, this affects their labour force directly.

As an example, a significant South African mining company, Harmony, estimates that HIV/AIDS related costs will amount to approximately 7.5% of their total labour cost over the next 15 years (Ellis, 2007). The disease management costs include Anti-Retroviral Therapy (ART), education, support for community-based organisations, home-based care for terminally ill ex-employees, research programmes, voluntary monitoring, testing and counselling and evaluation programmes (Ellis, 2007, Centre for Actuarial Research (CARE), 2002).

The high prevalence of HIV/AIDS among mine workers is attributed to their long separation from their families, ease of access to sex-workers, misconceptions regarding the transmission or cure of HIV/AIDS and women in these areas' vulnerability to being raped (CARE, 2002).

As one of the most material socio-economic issues being faced by contemporary society, it is reasonable to assume that stakeholders expect at least some reporting on HIV/AIDS (Solomon and Maroun, 2012). For example, the JSE has developed a separate index for social and environmentally responsible companies (see introduction) (SRI, 2014). The creation of this index is meant to kindle a market for responsible entities and encourage investors to invest more responsibly thereby creating an incentive for more companies to behave responsibly and report comprehensively on social and environmental issues. This would, in the researchers' opinion, include reporting on HIV/AIDS. In addition, as explained earlier, HIV/AIDS has a direct effect on companies' business models and, in turn, ability to generate returns (create value) in the short-, medium- and long-term.

As was highlighted by the South African platinum mining sector's protracted strikes - which caused significant negative financial consequences for investors, the economy and those employees – mismanaging human and social and relationship capital can have severe and long-last effects as the trust between management and employees breakdown (Arndt and Lewis, 2000, Hill and Maroun, 2015).

In addition, education and on-site clinics increase the operating costs of mining entities with a high HIV-positive employee rate. The UNAID has found education programs effective in helping to control the HIV/AIDS infection rates and prevent further infections (UNAID, 2006, UNAID, 2013).

Finally, another significant impact on companies is the effect of their employee benefit expenses. Increased medical visits, treatments – both for HIV/AIDS as well as related illnesses due to the suppressed immune system of infected employees – affects companies' bottom line (Ellis, 2007).

Effective reporting requires a clear rationale for including information in corporate communication with stakeholders and a clear reporting guideline which establishes what companies need to report (Alrazi et al., 2015). As discussed earlier, there is no single reporting framework on what companies should report on HIV/AIDS. Companies should, however, apply a principle-based approach to disclosing social issues in keeping with a comply-or-explain model applied in King-III (IOD, 2016)[76]. This can include using existing guidance and applying this by analogy in order to determine the scope of a HIV/AIDS reporting typology. For this purpose, the research used King-III, the GRI's G4 and the JSE SRI to develop an HIV/AIDS disclosure checklist. Table 2 presents the broad disclosure themes and what framework informed each.

Table 2

Framework		**Disclosure theme**
King-III	Positive disclosures	The Board should ensure that management considers and implements appropriate risk responses (principle 4.8). As a result, the integrated report should include an identification of identifiable, specific steps taken to mitigate the risks HIV/AIDS creates for the entity, as well as a quantification of the steps taken.
		The Board should ensure positive and negative impacts of the company's operations and plans to improve positives and eradicate negatives are conveyed in the integrated report (principle 9.2.4). As a result, the integrated report should include an identification of the manner in which the entity will rectify current weaknesses in their initiatives.
		The Board should ensure that measurable corporate citizenship programmes are implemented (principle 1.2.5). As a result the report should include the identification of the mine as a good corporate citizen that provides AIDS initiatives to the greater community.
	Negative disclosures	The company's report should include key sustainability risks, and responses to these risks and residual sustainability risks (principle 4.5, paragraph 39). As a result, the report should include the identification of HIV/AIDS as a key risk facing the entity, as well as the identification of the specific risks HIV/AIDS poses to the entity, the industry and the community.
		The Board should ensure that key risks are quantified where possible (principle 4.5.7). A quantification of the cost of HIV/AIDS, as well as the cost of identified additional risks created by HIV/AIDS, on the entity, the industry and community are performed.
		In terms of an entity's risk assessment in its investment in corporate social responsibility, it should identify shortcomings of those HIV/AIDS initiatives and, perhaps, how it has learnt from and will improve on those initiatives going forward (principle 4.8).
GRI's G4	Positive disclosures	The identification of the existence of a health and safety committee that has identified HIV/AIDS as a core issue, as well as evidence of the effectiveness of the committee (G4 – LA5).
		A description of programs related to assisting workforce members, their families, or community members regarding serious diseases, including whether such programs involve education and training, counselling, prevention and risk control measures, or treatment (G4 – DMA - b).
	Negative disclosures	The HIV/AIDS rate.
		Lost days or absenteeism rate as a result of HIV/AIDS-related illness.
		AIDS-related fatalities (G4 – LA6).
JSE SRI	Positive	An HIV/AIDS policy.

[76] King-IV adopts a comply and explain approach but, like King-III, still advocates a principles-based approach to corporate governance and reporting.

	disclosures	Occupational health & safety training / procedures covering prevention of transmission of HIV.
		Documented objectives and targets for addressing direct impact of HIV/AIDS.
		Details of the provision of treatment, care and support benefits for employees and sponsorship of / support for community-based prevention, education and awareness programmes.

METHODOLOGY

This research was carried out in the interpretive tradition. The aim is not to examine HIV/AIDS reporting to quantify disclosures in a positivist sense and reach a consensus on the optimal level of disclosure (Creswell et al., 2011, Leedy and Ormrod, 2013). It also does not deal with the value-relevance of HIV/AIDS reporting (see de Klerk and de Villiers, 2012). Instead, the study is exploratory. It examines what information is currently being reported on HIV/AIDS by a sample of mining companies to illustrate the current scope of reporting on the pandemic and develop a normative reporting framework.

Construction of the data collection instrument

As explained in the literature review, due to the lack of specific HIV/AIDS disclosure requirements, King-III, the GRI's G4 and the JSE SRI were used to construct a disclosure checklist (Creswell and Plano Clark, 2011, Carels et al., 2013, Raemaekers et al., 2016). The checklist consisted of sixteen disclosures and distinguished between positive and negative disclosures (however, the JSE SRI did not contain any principles that encouraged disclosure of negative information). Any disclosure that referenced an actual or perceived negative factual and / or potential performance impact on its ability to achieve sustainable development was defined as a negative disclosure (Hahn and Lülfs, 2014). Disclosures regarding the HIV/AIDS-related fatalities or a quantification of the cost to the company of HIV/AIDS are examples of negatively classified disclosures.

The final instrument (shown in the literature review) was completed by the lead researcher and reviewed by the support researcher for completeness. The instrument was also piloted with three companies to ensure that it could be practically applied and covered applicable disclosures currently being included in companies' corporate reports.

Sample

The research focuses on reporting by the South African mining industry. South Africa was chosen due to higher-than-average infection rates (UNAID, 2006) and the significant effect of the virus on the country's social, economic and political system (AIDS Foundation SA, 2015). The study concentrates on the mining industry because of its dependence on human capital and, in turn, the significant impact of HIV/AIDS on mining companies' business models.

Initially, the researcher included all 54 companies listed on the JSE's mining sector. Non-operational (i.e., prospecting) companies were excluded because these companies did not have significant human capital resources/risk exposure due to HIV/AIDS or because the companies did not prepare detailed integrated reports. In addition, some operating companies (especially if not listed primarily on the JSE) did not prepare an integrated report. Where an integrated or sustainability report was not available for the full period under review, these companies were excluded from the sample.

The final sample consisted of 29 companies. The researchers examined the reports issued for the 2014/2015 financial year. This precluded the collection of longitudinal data - which is an inherent limitation of this study. It should, however, be reiterated that the purpose of the research is to explore the scope of reporting on HIV/AIDS by South African mining companies and not to show changes in reporting practices over time. Longitudinal analysis is, therefore, deferred for future research.

Data collection and analysis

The lead researcher collected the data. This required the researcher to read each integrated/annual report carefully to obtain a sense of the structure of the reports and their content. After this was completed, the researcher followed an interpretive coding approach. This involved analysing each report carefully to identify specific HIV-AIDS disclosures. Due to the relatively small sample size and absence of a single reporting framework, the researchers elected not to use coding software. Instead, each report was analysed carefully on a systematic basis to ensure that all sections of the reports had been covered and all disclosures were taken into account (Solomon and Maroun, 2012a).

The checklist was only used to record the extent of HIV/AIDS disclosure. The checklist did not attempt to rank or assess the quality of any disclosure. This was not seen as a limitation of the study because the research focuses only on the scope of reporting. In addition, the introduction of a quality metric would have incorporated a high level of subjectivity in the scoring process which would have potentially undermined the reliability of the results. Table 3 reflects how the extent of disclosure was measured (de Villiers and van Staden, 2006, Wiseman, 1982).

Table 3

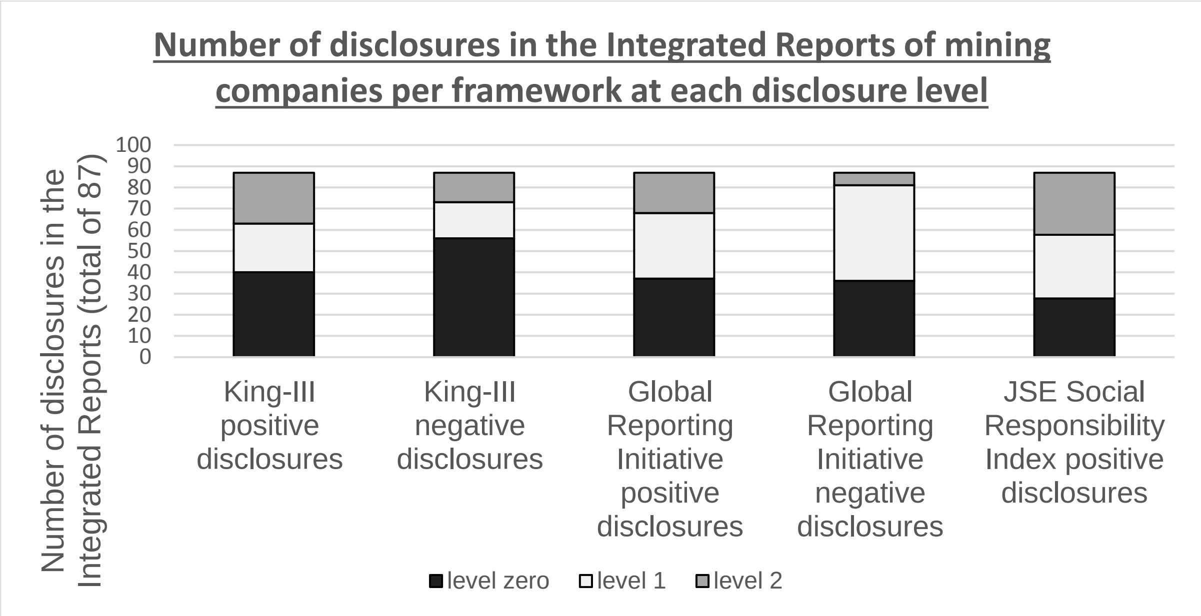
Extent of disclosure	**Score**
No disclosure	0
General disclosure	1
Specific disclosure and/or quantification of disclosure	2

For each disclosure, the company was scored with either a ‘0’, ‘1’, or ‘2’. General disclosures indicated a basic level of concern or risk assessment related to HIV/AIDS. These disclosures made no attempt to quantify the impact of HIV/AIDS on the entity or community in which the mine operated or the community in which the mine workers are from. Specific disclosures spoke to what extent the entity and the community is impacted by HIV/AIDS as well as the potential performance related impact/s through the use of quantitative or sufficiently detailed and complete narratives.

RESULTS AND ANALYSIS

Graph 1 summarises the overall results of the study. The graph indicates the extent of reporting on positive and negative issues related to HIV/AIDS by the 29 sampled mining companies under review. As there are three positive and 3 negative disclosure themes for each reporting framework used to develop the checklist, each bar is out of 87 (29 x 3). However, the SRI-inspired disclosure had 4 disclosure items and so a possible score of 116 (29 x 4). To allow for visual analysis, this section was adjusted to a score out of 87 (87 x (3/4)). The results are disaggregated and Graph 1 shows disclosure per King-III, the GRI’s G4 and the JSE SRI.

Graph 1



Most of the companies disclose HIV/AIDS related issues using the GRI's G4. This is probably due to the fact that the GRI provides a detailed disclosure framework which includes specific recommendations that can be tailored to HIV/AIDS reporting. For example, it includes guiding practices on labour relations, occupational health and safety, health care, training, and education. In addition, the GRI principles are widely established. International and local companies have several years' experience applying the GRI and are, therefore, more comfortable applying its principles to HIV/AIDS disclosure. It is also possible that companies replicate the disclosures provided by established industry leaders (de Villiers and van Staden, 2006). Because the GRI is internationally established, it is often used by companies for their environmental and other social disclosures (Carels et al., 2013). The same may apply to HIV/AIDS disclosures. Where leading companies tailor their HIV/AIDS reporting using the GRI as a framework, these disclosures are replicated and become an informal generally-accepted reporting typology (de Villiers and van Staden, 2006, Carels et al., 2013).

Interestingly, companies are more likely to use the GRI as a basis for potentially negative disclosures than positive reporting. In addition, most of the negative information was at a level 1. This suggests that companies are providing narrative information on HIV/AIDS impacts rather than completely omitting negative disclosures. This suggests that there is more to HIV/AIDS reporting than impression management (Solomon et al., 2013).

As explained in the literature review, HIV/AIDS has had a significant social, economic and political impact on South Africa. Unlike issues such as biodiversity risk management (Mansoor and Maroun, 2016) HIV/AIDS is no longer limited to the domain of scientific experts. Stakeholders, including institutional investors, have a working knowledge of the implications of HIV/AIDS for an organisation's ability to generate sustainable returns (IOD, 2009, IIRC, 2013, Deloitte, 2014, Atkins and Maroun, 2014). As a result, companies cannot avoid discussion both positive and negative performance in relation to HIV/AIDS.

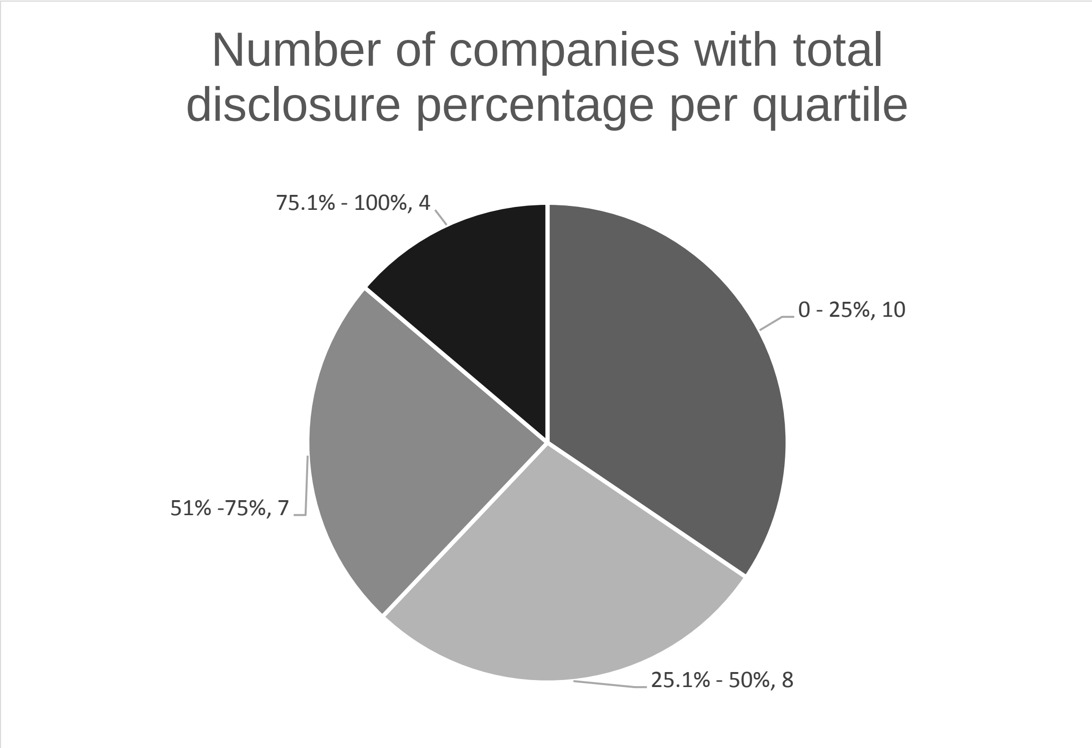
King-III was also used to frame reporting on HIV/AIDS. King-III was, however, used less than the GRI. This is probably due to the fact that the code is more principles-based. It provides less prescriptive disclosure requirements making it more difficult to adapt it for the purpose of specific HIV/AIDS reporting. In addition, because King-III does not deal directly with social reporting and HIV/AIDS, most negative disclosures were informed by the GRI rather than King-III (see graph 1).

Where companies used King-III to report on positive performance related to HIV/AIDS, this was mainly level-2 disclosure. The content is more factual and linked to the organisation's business model. There are two important implications. Firstly, the principles-based framework is appropriate for informing more context-specific reporting. Secondly, but more critically, the flexibility provided by the principles-based framework allows companies to avoid or reframe negative disclosures which are limited to the more generic reporting format recommended by the GRI.

Finally, the JSE SRI is relevant for guiding companies on their HIV/AIDS reporting. As shown in Table 1, the framework is similar to the GRI. It provides specific disclosure recommendations which companies comply with or are readily able to adapt to deal with HIV/AIDS disclosure. These disclosures include an almost equal mix of level-1 and level-2 disclosures. A possible interpretation is that the JSE SRI was developed specifically by the JSE to encourage responsible reporting and investment. It also provides a direct (albeit limited) measure of sustainability. Consequently, companies are most likely under pressure to report compliance with the reporting framework. This explains why the JSE SRI had the highest proportion of level-2 disclosures relative to the other two frameworks.

To understand better the scope of reporting on HIV/AIDS by South African mining companies, the researchers considered the total disclosure provided by each company. To accomplish this, each company's total disclosure score percentage (sum of disclosure score / 32) was calculated. The results are presented in graph 2 by showing how many companies achieved 0-25% disclosure; 25.1%-50% disclosure, etc.

Graph 2



Graph 2 shows that 10 of the 29 companies only disclosed between 0-25% of the disclosure checklist items. This means that the majority of HIV/AIDS related disclosures were at a level 0 or level 1. In other words, of the 16 disclosure themes, these companies either provided no disclosure or provided only limited narrative disclosure. In contrast, only four companies are in the fourth quartile and, therefore, address most of the disclosure themes (per Table 3) at a level 1 or level 2.

These results are concerning. Graph 1 shows that companies are including level 1 disclosures and complimenting these with more detailed accounts on the relevance of HIV/AIDS for their business models (level-2 disclosures). Graph 2 suggests that this result is not common for all of the companies under review. There are 4 outliers accounting for the majority of the level 2 disclosures. This suggests that the majority of South African mining companies are not incorporating detailed information on HIV/AIDS in their integrated/annual reports.

CONCLUSION AND IMPLICATIONS

This paper provides the first account of HIV/AIDS reporting by South African mining companies. Presently, there is no specific guidance on how companies should report on HIV/AIDS and exactly what information should be communicated to stakeholders.

To address this limitation this research explains that companies can draw on three existing reporting frameworks to provide an explanation HIV/AIDS impacts. These include the GRI, King-III and the JSE SRI. The frameworks do not deal exclusively with HIV/AIDS but refer to some specific disclosures and provide examples of more general social related issues that can be tailored appropriately. In turn, these disclosure metrics can be used to inform a more comprehensive HIV/AIDS reporting strategy which explains the interconnection between the virus and the different types of capital under an organisation's control. This is especially important because, if integrated thinking is applied, HIV/AIDS is more than just a social issue applicable to the government.

HIV/AIDS has significance human capital implications for the industry. Absenteeism, fatigue, unplanned medical visits and treatment have a direct impact on the financial capital of an entity and on operational efficiencies (manufactured capital). In addition, there are, unfortunately, persistent social implications. For example, stigmatism and marginalisation are often associated with individuals infected with the virus. This poses material challenges in terms of promoting fairness and transparency in the workplace, team integration and an equitable/conducive working environment. As a result, HIV/AIDS is not a medical or scientific problem; it is a multidimensional business management issue which ought to be addressed comprehensively in an integrated report.

The South African mining companies have made some progress in this regard. The results show that existing reporting guidelines can be tailored to address different aspects of HIV/AIDS in a business context. This includes relatively generic disclosure but this can be complimented with more context-specific analysis which demonstrates an integrated thinking approach to HIV/AIDS.

Unfortunately, this practice is not widespread. Consistent with the findings of Solomon et al. (2012), Raemaekers et al. (2016), and PwC (2015b) reporting is often generic and fails to explain in detail the interconnection between HIV/AIDS and the six capitals. In some instances, disclosures are omitted entirely undermining the ability an integrated report to provide a comprehensive explanation of how organisations manage risk as part of the value generation process.

This begs a number of questions that need to be addressed by future researchers. Why are some companies better at adopting an integrated reporting strategy than others? This paper provides a preliminary review on the scope of HIV/AIDS reporting but does not deal with the internal reporting process at the organisation level. For example, more needs to be done to understand how companies identify risks, how these are related to the different capitals and how companies decide what to report on the respective metrics. Related closely to this is the need to explain in more detail specific challenges encountered when applying principles-based reporting frameworks in general. It is possible that issues, such as the rigidity of the accounting infrastructure, overemphasis on financial reporting discourse and the need for a widening of technologies of governance and accountability are underlying obstacles to effective reporting on specific social issues such as HIV/AIDS.

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MAF003 FINANCIAL INCLUSION IN SOUTH AFRICA: A REVIEW OF THE LITERATURE

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ABSTRACT:

The research for this paper was guided by the question on whether the financial inclusion improvement strategies of the South African Government and the private sector adequately address the financial inclusion targets, as set out in the National Development Plan.

This descriptive non-empirical paper was conducted by means of a literature review. The secondary data used for the paper were collected from a number of sources, namely: (i) the 2015 and 2016 Brookings Financial and Digital Inclusion Project reports; (ii) the 2014 Global Findex survey; (iii) Financial Access surveys; (iv) various national FinScope surveys; and (v) a number of working papers of the World Bank related to financial inclusion.

The data revealed that South Africa, with its sophisticated financial sector, was early to adopt policies and initiatives to advance financial inclusion and the country has experienced a noticeable increase in financial inclusion from 61% in 2004 to 89% in 2016. South Africa is 1% away from its National Development Plan goal of 90% financial inclusion by 2030. This indicates that overall, the financial inclusion initiatives adopted by the public and private sectors in South Africa were successful.

Key words: Financial inclusion, financial exclusion, mobile banking, Global Findex, Brookings Financial and Digital Inclusion Project report

INTRODUCTION AND RESEARCH OBJECTIVE

Why has financial inclusion become a global concern in recent years? This concern emanates from a growing body of research which identifies financial exclusion as a global challenge with dire consequences for a country's economic growth, small and medium-sized enterprise (SME) development, transformation and the poor's ability to participate in the formal financial sector (Demirguc-Kunt & Klapper, 2012a). It is in this context that financial inclusion has been prioritised in the South African Government's National Development Plan (NDP). South Africa (SA) aims to increase financial inclusion in the country to 90% by 2030 (Banking Association of South Africa, 2015).

Agrawal (2008:1) acknowledges that early development theories concentrated on labour, capital and institutions as the main factors for growth and development while ignoring finance as a contributor to growth. The main reason for this oversight was due to initial finance theories such as the Modigliani Miller theorems which were based on the assumption that markets are free from imperfections and frictions (Agrawal, 2008:1). However, later research showed that there were imperfections in financial markets and that these imperfections were reduced by different financial entities (Agrawal, 2008:1). Since then, there has been a growing body of scholars analysing how financial systems contribute to the development of economies.

Ardic, Heimann and Mylenko (2011:2) as well as Mohieldin, Iqbal, Rostom and Fu (2011:2) note that there is a strong relationship between financial development and economic growth. However, Johnson and Nino-Zarazua (2011:475) caution that even though financial development is a leading contributor to economic growth, there is no substantial evidence to suggest that it correlates to poverty reduction. In this context, Mirakhor and Iqbal (2012:36) argue that, in addition to financial development and financial intermediation, countries should place greater emphasis on the expansion of access to finance – also referred to as financial inclusion – in order to eradicate poverty (Mirakhor & Iqbal, 2012:36). Along similar lines, Demirguc-Kunt and Klapper (2012a:1) recognise that a well-functioning, inclusive financial system benefits the poor; as it promotes entrepreneurship and creates greater opportunities for advancement. With deeper, more inclusive financial systems, countries would experience accelerated growth rates and reductions in income inequality and poverty (Beck & Demirguc-Kunt, 2008:1).

The 2015 Brookings Financial and Digital Inclusion Project (FDIP) report and the World Bank (2016) estimate that there are approximately two billion adults excluded from the financial sector worldwide (Villasenor, West & Lewis, 2015:2). The focus on financial inclusion has led governments and central banks in developing nations to shift their policy agenda for financial sector development, away from a period of emphasis on micro-finance towards the enhancement of financial inclusion (Johnson & Nino-Zarazua, 2011:475). The Maya Declaration is an example of the global commitment towards financial inclusion. The declaration was introduced in 2011 and adopted by 61 countries in a display of commitment to expand access to financial services for the poor (Villasenor *et al.,* 2015:3). The Maya Declaration is a pledge to recognise the importance of financial inclusion, to develop financial inclusion policy and to assert the importance of peer-to-peer information sharing.

Until quite recently, there has been a lack of systematic indicators that measure people's use of financial products across economies. In an effort to fill the gap in the financial inclusion data landscape, the World Bank established the Global Financial Inclusion Database (Global Findex) in 2011. Global Findex was the first database with systematic indicators to measure people's use of financial products across economies. Global Findex enables the measurement of how adults in 148 economies save, borrow, make payments and manage risk. These indicators are added to the Global Findex to enable researchers and policy-makers to identify population groups that are excluded from the formal financial sector and to understand the characteristics associated with particular financial behaviours (Demirguc-Kunt & Klapper, 2012a:1).

The recent introduction of mobile money and other digital financial services has led to an improvement in the depth of the financial systems in African countries (Demirguc-Kunt & Klapper, 2012b:3). The greatest success has been reported in Sub-Saharan Africa, where 16% of adults and 31% of those with a formal account make use of a mobile phone to pay their commitments (Demirguc-Kunt & Klapper, 2012a:2). Despite these positive developments, financial systems in many African countries remain under-developed when compared with other developing economies. Global Findex data show that less than half of the adult population in Africa own a bank account with a formal financial institution (Demirguc-Kunt, Klapper, Singer & Van Oudheusden, 2015).

African countries are taking progressive steps to enhance financial inclusion. Kenya, Uganda and SA, for example, have taken a number of steps to address financial exclusion, such as the introduction of laws to facilitate financial inclusion, the implementation of regulatory changes that grant different institutions involvement in the financial services sector and the granting of support to mobile and digital networks that facilitate service delivery (Villasenor *et al.,* 2015:3).

Since 2004, a number of legislative and commercial initiatives have been introduced in SA to accelerate financial development as the South African Government recognised financial inclusion as a potential tool to enhance inclusive economic growth and to decrease inequality. In context of the above, the research problem (question) is formulated as follows:

> *Do the financial inclusion improvement strategies of the South African Government and the private sector adequately address the financial inclusion targets, as set out in the National Development Plan?*

To provide and answer to the research question, the research objective of this paper is to evaluate the effectiveness of the financial inclusion strategies and initiatives adopted by the South African Government and the private sector.

To give effect to the research question and objective of this non-empirical paper, an extended literature review was conducted to provide a theoretical foundation for the research objective. Secondary data were reviewed to determine the extent of financial inclusion in SA and to determine which financial inclusion strategies were adopted by the South African Government and the private sector. The remainder of the paper is structured as follows. First, the definition of financial inclusion is contextualised, the research method is explained and justified, where after the findings and recommendations are provided.

DEFINITION OF FINANCIAL INCLUSION

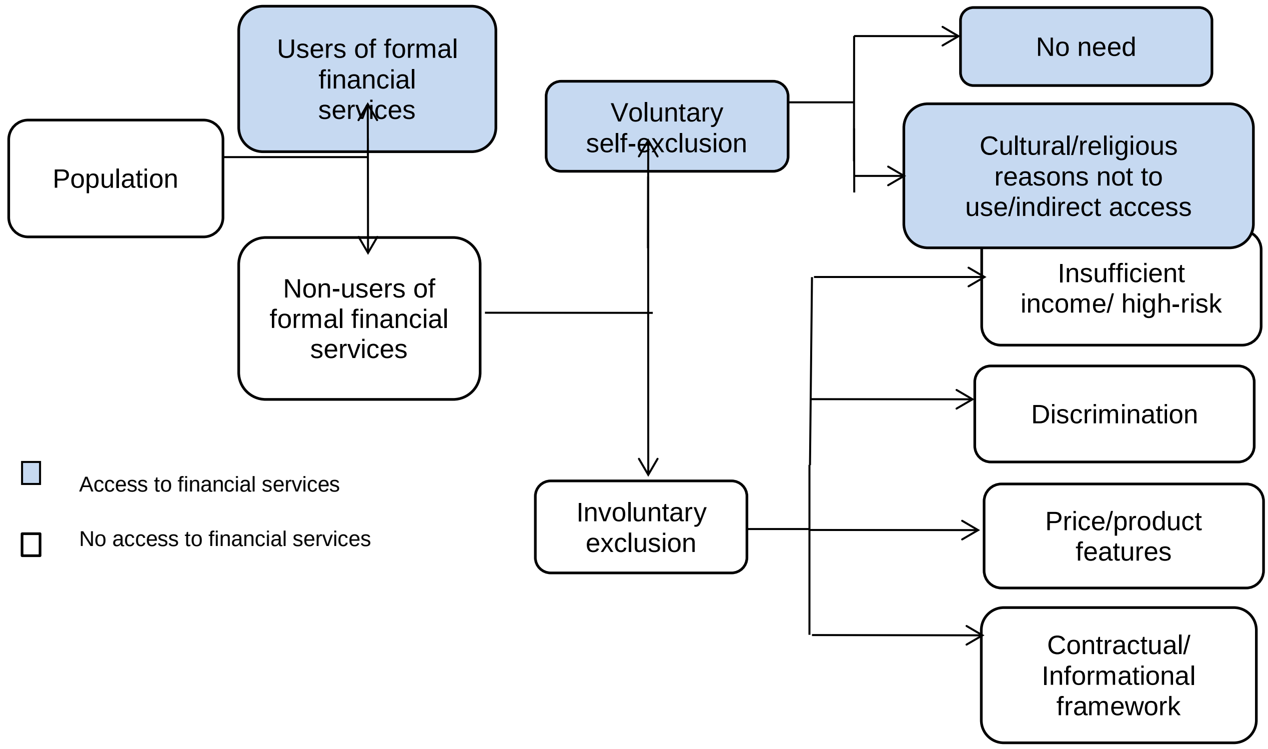
The initial concept of financial inclusion referred to the delivery of financial services to low-income segments of society at an affordable cost (Mohieldin *et al.,* 2011:3). Today, the concept of financial inclusion has broadened to include the use and access to a full suite of quality financial services, at affordable prices, in a convenient manner, delivered by a range of providers in a stable and competitive market to everyone who is financially capable (Financial inclusion 2020 progress report, 2015:1).

To enhance one's understanding of the concept of financial inclusion, a definition of financial exclusion is warranted. Warsame (2009:17) explains that financial exclusion can be defined in either a narrow sense or a broad sense. In the narrow sense, it is the exclusion of individuals from particular sources of credit and financial services, such as insurance, bill-payment services and accessible and appropriate deposit accounts (Warsame, 2009:17). In the wider sense, financial exclusion refers to the factors which effectively shut out the less fortunate of society from any access to the mainstream money services (Warsame, 2009:17).

The definition suggests that access to conventional financial services is especially a problem for impoverished members of society as they pose a high lending risk and, in the case of entrepreneurs, who do not have adequate security to qualify for conventional debt financing (Mirakhor & Iqbal, 2012:36; Beck & Demirguc-Kunt, 2008:4). These individuals are sometimes referred to as the "non-banked" or "unbanked" members of society (Mirakhor & Iqbal, 2012:36).

Mohieldin *et al.,* (2011:4) identifies two types of financial exclusion, namely: (i) voluntary financial exclusion; and (ii) involuntary financial exclusion. Figure 1 illustrates the difference between voluntary and involuntary financial exclusion. The non-users of the financial system either voluntarily exclude themselves – due to religious reasons, lack of trust in financial services, prior refusal from financial institutions, negative/biased marketing strategies; or they do so because they feel there is no need to be part of the financial system. The other group of non-users are involuntarily excluded from the financial system as they are considered un-bankable – due to their low income, thus posing a high lending risk to financial institutions. Financial institutions may also cause exclusion amongst this group by discriminating against certain populations and religious groups. This group may also be excluded since it is too costly for financial institutions to access certain population groups. Lastly, the cost of financial services may be too high or the products offered may be unsuitable for these individuals (Mohieldin et al., 2011).

Figure 1: Types and reasons for financial exclusion



(Source: Mohieldin *et al.*, 2011:4)

DEVELOPMENTS IN FINANCIAL INCLUSION

An effort to enhance financial inclusion commenced in the 1970s, when Muhammad Yunus, the founder of the Grameen bank, adopted innovative approaches to micro-credit (Nhavira, 2015:80). These innovative approaches shifted lending from the individual to groups, employed credit agents and women, to provide credit to the impoverished (Nhavira, 2015:80). Despite the success of the Grameen model, the needs of the poor could not be comprehensively addressed solely by the provision of credit (Nhavira, 2015:80).

In the early 1980s, policy-makers looked for alternatives to advance financial inclusion (Nhavira, 2015:80). This led to the huge increase in bank branches and Automated Teller Machines (ATMs) in rural settlements in the 1990s to early 2000 (Nhavira, 2015:80). In Nigeria, for example, between 1977 and 1983, banks were mandated to open 466 branches nationwide (Nhavira, 2015:80). Between 2010 and 2013, South African banks were placing the majority of new ATMs in rural and previously disadvantaged communities (FinScope South Africa, 2014). However, the gains of these initiatives eroded as it became costly for banks to serve rural communities due to low customer volumes (David-West, 2016:256). This resulted in branch closures in poor areas as these traditional banking models were unsuitable for the customer and the service providers. Rural areas require an innovative approach to banking, suited to individuals with lower incomes (Ismail & Masinge, 2012:100). For this reason, many banks began experimenting with internet banking models in early 2000 (Telegraph, 2014). After embracing internet banking, banks and telecommunication companies worked towards the development of mobile banking models (Petrova, 2002:3).

Mobile Banking

Petrova (2002:2) defines mobile banking as the ability to conduct bank transactions via a mobile device, or more broadly to conduct financial transactions via a mobile terminal. Similarly, Firpo (2009) defines mobile banking as a connection between a mobile phone and a personal or business bank account that allows customers to use their mobile phone as a channel for their banking services.

Bara (2013:345) contends that the introduction of mobile money/banking is revolutionary, as it changed the manner in which banking is done and has contributed to an increase in financial inclusion in most developing countries. Mobile banking creates the potential for banks to expand their market penetration in previously unbanked/rural areas since the costs related to branch overheads are reduced (Lee, Lee & Kim, 2007).

From the demand side, mobile banking offers a potential solution to individuals in emerging markets that have access to a mobile phone, yet remain excluded from the financial system (Ismail & Masinge, 2012:99). Mobile banking minimises the time and distance to the nearest retail bank branch, making basic financial services more accessible (Ismail & Masinge, 2012:99). Mago and Chitokwindo (2014:223) investigated the impact of mobile banking on financial inclusion in Zimbabwe and they found that the poor were quick to adopt mobile banking due to the convenience of access, ease of use and soundness of mobile banking (Mago & Chitokwindo, 2014:223).

While the convergence of telecommunications and financial services has created opportunities for the emergence of mobile banking solutions, Bara (2013:345) emphasises that this fusion has implications on policy and regulatory frameworks. Policy and regulatory frameworks must not only accommodate the provision of these innovative financial services but should also enable better supervision and control of the providers of these services (Bara, 2015:345).

In SA, all large banks offer mobile phones, as an additional access channel to existing bank accounts (Bara, 2015:351). Two mobile banking models, WIZZIT and MTN Mobile Money, have emerged in SA (Bara, 2015:351). With these models, the bank account is fully integrated with the mobile phone. This integration allows the customer to use the mobile phone as an additional access channel as well as a payment instrument (Bara, 2015:351).

Agent Banking

Agent banking is another development in the banking industry that is recognised as a viable strategy for extending formal financial services into poor and rural areas (Alliance for Financial Inclusion, 2012:3). The Alliance for Financial Inclusion (2012:3) defines agent banking as a model, in which the banks provide financial services via non-bank agents, such as grocery stores, pharmacies, post offices, retail outlets or lottery outlets. Agent banking enables banks to expand their services into areas where they do not have sufficient incentive or capacity to establish a formal branch (Alliance for Financial Inclusion, 2012:3).

Tarazi and Breloff (2011:1) note the benefits of agent banking to all parties involved. While the bank saves on the cost of building a formal branch and the hiring of staff, the agent receives a transaction fee from the bank and the customer saves on transportation time and expenses. Tarazi and Breloff (2011:1) warn that this branchless banking system requires regulation in order to protect the consumers and the integrity of the financial institutions.

MEASURING FINANCIAL INCLUSION

Policy-makers are required to understand the factors that contribute to financial exclusion and to explore the mechanisms that could potentially tackle this phenomenon. For this reason, it is important to measure financial inclusion. Financial inclusion is traditionally measured by the proportion of the population able to access commercial bank branches and ATMs, as well as the size of bank deposits and loans made to low-income households and SMEs (Beck & Demirguc-Kunt, 2008). These metrics alone do not equate to financial inclusion as there may be individuals who voluntarily exclude themselves from financial services – for religious or cultural reasons, despite their ability to access and afford these services (Beck & Demirguc-Kunt, 2008). The sections that follow will discuss various indicators that measure financial inclusion.

Global Findex Database

The Global Financial Inclusion (Global Findex) database was launched by the World Bank in 2011 and for the first time, it became possible to measure financial inclusion in a systematic and comparable manner (Demirguc-Kunt *et al.*, 2015:3). The first edition of the Global Findex database provided more than 60 indicators for 148 economies on how individuals around the world save, borrow, make payments and manage risk (Demirguc-Kunt *et al*., 2015:3). The main indicators related to the use of formal credit and formal accounts are collected annually. While a full set of indicators is collected every three years.

In 2011, the Global Findex database measured financial inclusion as having an account that can store money and receive payments (Demirguc-Kunt *et al*., 2015:3). To reflect the developments in the financial sector since 2011, the second edition of the Global Findex database (2014) also includes those adults with mobile money accounts, when measuring financial inclusion (Demirguc-Kunt *et al.,* 2015:14). The second edition provides more than 100 indicators for 143 economies.

The Brookings Financial and Digital Inclusion Project Report

The Brookings FDIP report presents a relative assessment of the extent of financial inclusion across 21 countries. To measure financial inclusion, the FDIP report uses a scorecard with 33 indicators, which span across four dimensions. The four dimensions include: (i) country commitment; (ii) mobile capacity; (iii) regulatory environment; and (iv) adoption (Villasenor *et al.,* 2015:10). Every indicator is scored on a scale of 1 (low) to 3 (high), resulting in a maximum potential score of 99 (Villasenor *et al.,* 2015:10). Refer to Appendix 1 for a list of the 33 indicators.

BARRIERS TO FINANCIAL INCLUSION

Financial inclusion has progressed from 2011 to 2014 with a decrease in the number of financially excluded individuals from 2.5 billion to 2 billion reported by Global Findex. Despite the progress in financial inclusion, there are still a number of barriers hindering financial inclusion. These barriers are complex and varied and they are often interconnected, affecting individual consumers and groups of consumers differently (Financial Inclusion Centre, 2015). Johnson and Nino-Zarazua (2010:476) and Warsame (2009:18) recognise that the determinants of non-use are complex and that there is no one particular reason for financial exclusion. Instead, there are several factors, which enable this phenomenon, such as higher charges for services required by the underprivileged, restriction of access to banks due to closures in underprivileged areas, inappropriate products and biased marketing strategies (Warsame, 2009:20).

Self-reported Barriers

Allen, Demirguc-Kunt, Klapper and Peria (2016:10) refer to the 2014 Global Findex survey to provide insights into the self-reported barriers to financial inclusion. The 2014 Global Findex survey revealed that globally, the most-cited reason for not having a bank account is the lack of sufficient funds to use one (Allen *et al*., 2016:10). This reason was reported by 66% of adults without a formal account, of whom 30% reported insufficient funds, as the only reason (Allen *et al.,* 2016:10). The respondents were permitted to cite more than one reason. Allen *et al.,* (2016:10) regard these adults as voluntarily excluded from the formal financial system, as well as individuals who chose not to have an account for cultural or religious reasons (cited by 5% of adults); or because another family member has an existing account (cited by 23% of adults).

The second most-cited reason for not owning an account is that banks are too expensive (Allen *et al*., 2016:10). Other reasons reported by individuals, who do not own a bank account, by order of importance are: (i) banks are too far; (ii) lack of required documentation; and (iii) lack of trust in banks (Allen *et al*., 2016:10). These reasons are associated with involuntary exclusion (Fungacova & Weill, 2014:199). Allen *et al*., (2016:10) caution that although the self-reported barriers cannot support causal statements, they allow researchers and policy-makers to understand the reasons for non-use, and to prioritise and design policy interventions accordingly.

Profile of the Financially Excluded

Allen *et al.,* (2016:33) describe the profile of individuals who report the above-mentioned reasons as barriers to financial inclusion. The poor, less educated, unemployed or rural residents are more likely to report cost as a barrier to account ownership (Allen *et al.,* 2016:33). Rural residents, less-educated individuals, married or poor adults, who may find it more costly and difficult to travel long distances, are more likely to cite distance as a barrier (Allen *et al.,* 2016:33). Lack of the required documentation is also more likely to be cited as a barrier by the less-educated or rural residents, including younger or single adults, who may lack residency documents, due to relocation for work or other reasons (Allen *et al.,* 2016:33).

Underprivileged or unemployed adults are more likely to report insufficient funds, as a barrier to account ownership (Allen *et al.,* 2016:33). Lack of trust in banks is more likely to be cited, as a barrier, by men and wealthier adults (Allen *et al.,* 2016:33). Individuals who cite not having enough money as being the only barrier, are more likely to be poor, older, urban or unemployed adults (Allen *et al.,* 2016:33).

RESEARCH METHOD

Scientific research can be conducted by using primary and/or secondary data (Babbie & Mouton, 2015). In the context of the research question and research objective the published literature was found to be sufficient.

This descriptive paper collected and reviewed secondary data from a number of sources, namely: (i) the 2015 and 2016 Brookings Financial and Digital Inclusion Project (FDIP) reports; (ii) the 2014 Global Findex survey; (iii) Financial Access surveys; (iv) various national FinScope surveys; and (v) a number of working papers of the World Bank related to financial inclusion.

To substantiate the secondary data used for this paper, the research processes and methodologies of the 2015 Brookings FDIP report, the 2014 Global Findex survey, and the 2015 FinScope South Africa surveys are briefly discussed next.

The Brookings FDIP Report

The Brookings FDIP report presents a holistic picture of the financial inclusion landscape in 21 different countries (Villasenor *et al.,* 2015:10). To assess financial inclusion across the country, the FDIP team targeted government representatives in each of the subject countries, in order to obtain feedback on their respective draft country profiles (Villasenor *et al.,* 2015:130). To obtain a complete picture of the financial inclusion environment in each country, non-government representatives were also contacted and through high levels of engagement, a more accurate description of the financial inclusion environment was obtained (Villasenor *et al.,* 2015:130).

To assess the financial inclusion environment in each country, the report uses a scorecard with 33 indicators. The indicators span across four dimensions, namely: (i) country commitment; (ii) mobile capacity; (iii) regulatory environment; and (iv) adoption (Villasenor *et al.,* 2015:10). Each indicator is scored on a scale of 1 (low) to 3 (high), resulting in a maximum potential score of 99 (Villasenor *et al.,* 2015:10).

A number of indicators were dichotomous, and could be awarded a score of 1 or 3. Other indicators were trichotomous and could be awarded a score of 1, 2 or 3 (Villasenor *et al.,* 2015:12). To compute the overall scores, all the indicators were weighted equally (Villasenor *et al.,* 2015:12).

The 2014 Global Findex Survey

The 2014 Global Findex survey included more than 100 indicators for 143 economies on how individuals around the world save, borrow, make payments and manage risk (Demirguc-Kunt *et al.,* 2015:4).

Indicators are drawn from survey data that cover almost 150 000 people across 143 economies. The survey was conducted by Gallup Inc., and it represents more than 97% of the world's population. The target population is the entire civilian, non-institutionalised population aged 15 years and above (Demirguc-Kunt *et al.,* 2015:73).

In economies where less than 80% of the population have telephone coverage, the surveys were conducted on a face-to-face basis. The fieldwork in most economies was completed in two to four weeks. The first stage of sampling was the identification of primary sampling units, which were then stratified according to population size, geography, or both. One or more stages of sampling were completed, in order to achieve clustering (Demirguc-Kunt *et al.,* 2015:73). The interviewers made up to three attempts to survey the sampled households – unless there was an outright refusal from the household (Demirguc-Kunt *et al.,* 2015:73).

In economies where telephone interviewing was common, random-digit dialling, or a nationally representative list of telephone numbers was used. In economies where there is high mobile phone-penetration rates, a dual-sampling frame was used (Demirguc-Kunt *et al.,* 2015:73). A minimum of three attempts were made to contact a person in each household, on different days and times of day (Demirguc-Kunt *et al.,* 2015:73). To achieve a nationally representative sample for each economy, data weighting was used. The final weights comprised the post-stratification weights. This corrected the unequal probability of selection, based on household size (Demirguc-Kunt *et al.,* 2015:73).

The 2015 FinScope South Africa Survey

The research process adopted by the 2015 FinScope South Africa survey is used for this paper as the 2016 FinScope South Africa survey research process and comprehensive findings were not available at the time of publication. The sample for the 2015 survey was a nationally representative sample of South Africans aged 16 years and older, with the sample drawn systematically by using the Probability Proportional to Size sampling method. The Enumerator Area (EA) comprised 834 and 6 interviews were conducted per EA (FinScope, 2015). To identify the respondents, two further levels of random sampling were conducted, namely: (i) households randomly selected within each EA; and (ii) individual respondents randomly selected from sample households by using the Kish grid (FinScope, 2015). The fieldwork was conducted from the 14th July 2015 to 2nd September 2015. A total of 5 000 interviews were held (compared to 3 900 in previous years), using Computer Aided Personal Interviews and the questionnaire was translated into isiXhosa, isiZulu, Sesotho, Setswana, Sepedi and Afrikaans as these are the most-spoken languages in SA (FinScope, 2015).

FINDINGS

South Africa is an upper-middle income economy, with a Gross National Income (GNI) per capita of $12 700 (World Bank, 2016). Despite this status, the country remains a dual economy, with one of the highest inequality rates in the world (World Bank, 2016). The top decile of the population accounts for 58% of the country's income, while the bottom-decile accounts for only 0.5% (World Bank, 2016).

According to the 2015 FinScope South Africa survey, the unemployment rate in SA is 26% and 11.1 million people are supported by social grants. The World Bank (2016) projects real GDP growth for 2016/2017 at 0.8%, and cautions that this weak growth will exacerbate the already high unemployment and inequality rates.

Banking Landscape in South Africa

The Financial Access Survey (2013) indicates that there were approximately ten commercial bank branches per 100 000 adults, and approximately three commercial bank branches per 1 000 km^2 in SA in 2013. According to Global Findex (2014), approximately 70% of adults (ages 15 years and older) and 70% of women had an account at a bank in 2014, compared with 58% of those in the bottom 40% income bracket. According to the FinScope South Africa survey (2014), SA has more formally banked women than men, which is unique in Africa. The survey shows that 79% of the women are banked compared with 70% of the men (FinScope South Africa, 2014).

Mobile Ecosystem in South Africa

According to the World Development Indicators (2014), mobile subscription levels in SA are high, with approximately 150 subscriptions per 100 people. Villasenor *et al.,* (2015:110) note that 90% of South African adults used a mobile phone in 2014 and approximately 24% of adults made use of mobile banking. Fifty-seven percent of adults in SA had smartphones in 2014 and approximately 43% of adults actively used smartphones in 2014.

According to the Financial Access Survey (2013), there were approximately three active agent outlets per 1 000 km^2 and 11 active agent outlets per 100 000 adults in 2013. For every 1 000 adults, there were approximately seven active mobile money accounts, and approximately 76 registered mobile money accounts in 2013 (Financial Access Survey, 2013).

Global Findex (2014) revealed that there were approximately 14% of adults (aged 15 years and older) with a mobile money account in 2014 and since mid-2015, there were six mobile money deployments in the country (GSMA Mobile Money for the Unbanked Deployment Tracker, 2015). M-Pesa was re-launched in SA in 2014, as the initial launch in 2010 was not as successful as envisaged. As of May 2014, M-Pesa had more than 8 000 agents at informal outlets and retailers (Villasenor *et al.,* 2015:110).

South Africa was ranked second in the 2015 Brookings FDIP project report, with an overall score of 80%. South Africa's score was 9% lower than that of the number-one ranked country, Kenya. South Africa scored an impressive 100% in the mobile capacity dimension, and a competitive 89% in the country commitment dimension. The adoption dimension received the lowest score of the four dimensions (69%).

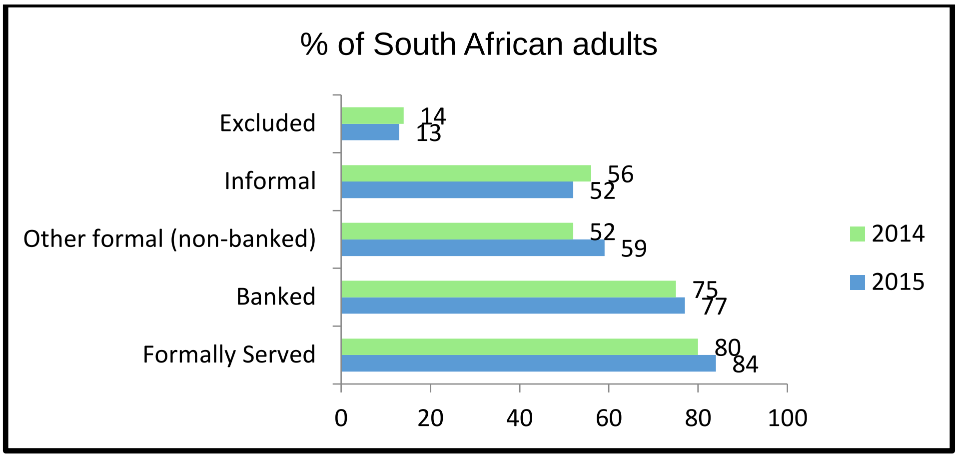
The 2016 Brookings report shows a decline in dimension scores for SA compared to 2015. South Africa was ranked third, along with Brazil in the 2016 Brookings FDIP report. South Africa scored 94% in the mobile capacity dimension, 83% in the country commitment dimension, 67% in the regulatory environment dimension and 72% in the adoption dimension. The top two ranked countries for the 2016 Brookings FDIP report were Kenya (overall score 84%) and Colombia with an overall score of 79% (Villasenor, West & Lewis*,* 2016:6).

The 2015 Finscope South Africa Survey

The 2015 FinScope South Africa survey indicated an increase in the number of financially included adults (aged 16 years and older), from 17.7 million in 2004 to 32.5 million adults in 2015. Despite an increase in financial inclusion over the past 11 years, the 2015 survey showed that the level of financial inclusion has remained stable at 87%, compared with 86% in 2014 and 84% in 2013.

As previously mentioned the comprehensive results for the 2016 FinScope South Africa survey were not available at the time of publication. Available results from the 2016 FinScope South Africa survey indicate a level of 89% financial inclusion (38.2 million adults) while approximately 11% of the adult population (4.3 million adults) are financially excluded.

Figure 2: FinScope South Africa key results: 2014 and 2015



(Source: Adapted from FinScope South Africa Survey, 2015:18)

As illustrated in Figure 2, the percentages of formally served adults increased from 80% in 2014 to 84% in 2015, while the percentage of banked individuals increased by 2% to 77% over the same time period. From 2014 to 2015, there was a 1% decrease of excluded individuals, and a 4% decrease in the number of adults who are informally served.

According to the survey, a higher proportion of LSMs, 1 - 2 are excluded. However, exclusion decreased across LSM 3 - 6 and LSM 9 - 10. LSM is the acronym for living standards measure, which is a widely used index of social welfare in SA. A high LSM indicates a high standard of living while a low LSM indicates a low living standard (AFI & GPFI, 2014:3).

The financially excluded in SA are not only individuals residing in difficult to reach environments – there is a concerning number in urban areas (FinScope South Africa, 2015:20). Table 1 highlights in bold the percentage of financially excluded adults in urban areas. The majority of the excluded resided in urban areas in 2014 and 2015. Tribal/traditional locations also host a noticeable percentage of the excluded, while the farm locations host the lowest percentage of excluded individuals in 2014 and 2015.

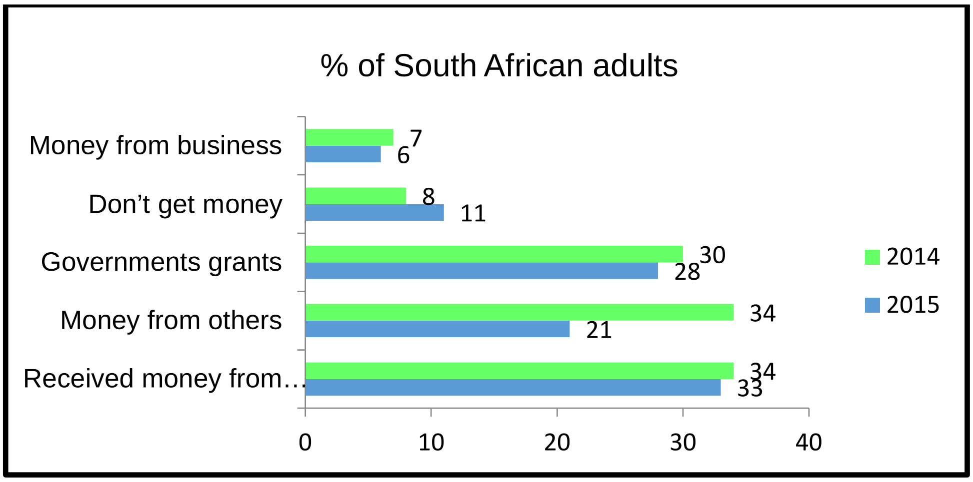
Table 1: Number of financially excluded South Africans by environment

Number of financially excluded adults		
Environment	**2014**	**2015**
Total	14% (5,358,463)	13% (4,850.520)
Urban	**51% (2,743,221)**	**52% (2,533,153)**
Farms	6% (340,752)	9% (437,627)
Tribal/Traditional	42% (2,274,489)	39% (1,879,741)

(Source: FinScope South Africa survey, 2015:20)

Of those excluded in urban areas, 59% are males, 48% are aged 18 – 29, while 78% are in LSM 1 – 6 and 50% have no income at all. The survey also reported that South Africans are struggling to stretch their money, with 10 million adults unemployed, households have fewer income earners and less people are being financially assisted by family and friends (FinScope South Africa, 2015:8). Figure 3 illustrates the sources of income for South African adults.

Figure 3: Sources of income for South African adults: 2014 and 2015



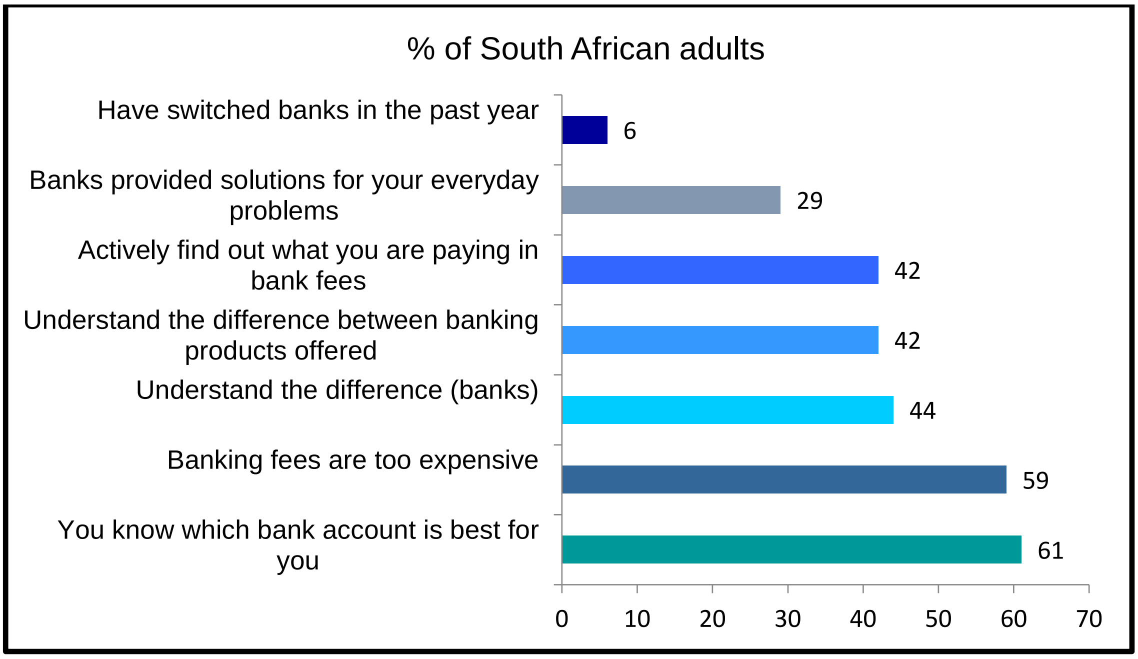
(Source: FinScope South Africa survey, 2015:8)

As illustrated in Figure 3, 33% of adults received money from a salary/wage in 2015, compared to 34% in 2014, 28% of adults received money from a government grant in 2015, compared to 30% in 2014. About 21% of adults received money from other individuals in 2015, 11% had no source of income, while 6% received money from a business. The comparative figures for 2014 were 34%, 8% and 7%, respectively.

Bank sentiment in South Africa

As illustrated in Figure 4, only 61% of the South African population knew which bank account would best suit their needs, while 59% felt that banking fees are too expensive (FinScope South Africa, 2015). The survey revealed that 44% of the population understood the differences between banks, while 42% understood the differences between banking products that are on offer and actively found out how much they were paying for banking fees.

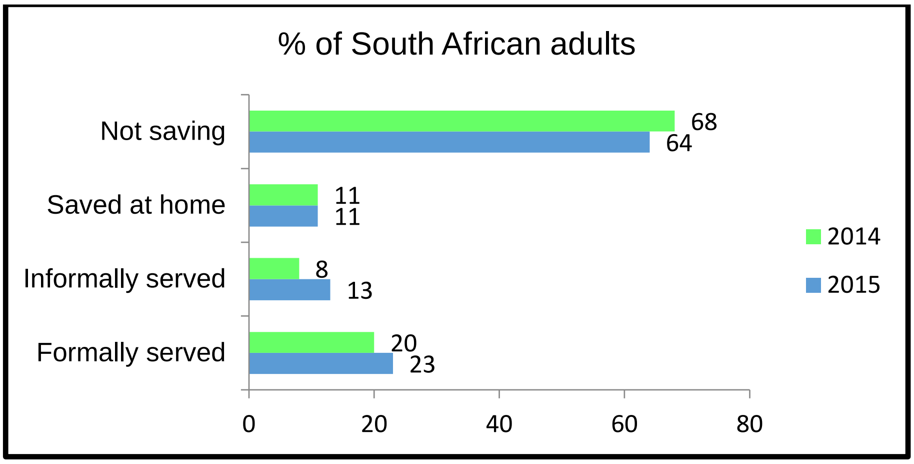
Figure 4: Bank sentiment among South African adults



(Source: FinScope South Africa survey, 2015:45)

Savings in South Africa

Figure 5: Types of saving among South African adults: 2014 and 2015



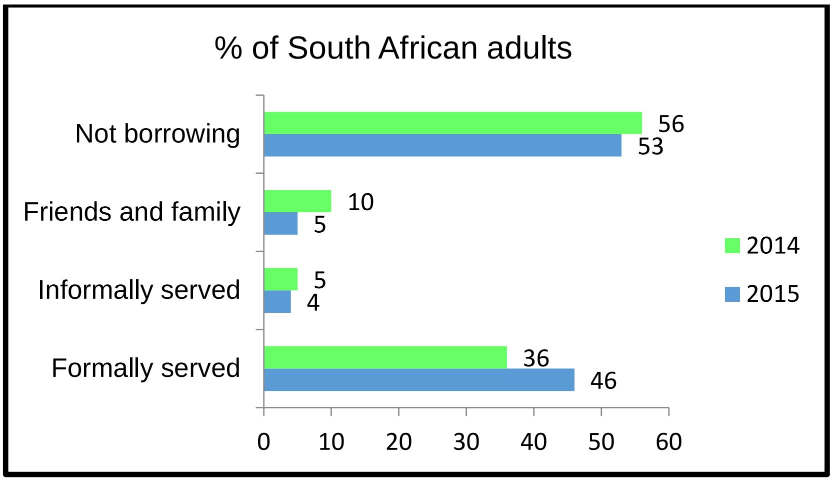
(Source: FinScope South Africa, 2015:39)

The South African government's push on tax-free savings has resulted in an increase in short-and medium-term savings. As depicted in Figure 5, there was a 3% increase in formal savings from 2014 to 2015, and a 5% increase in informal saving. There was a 4% decrease in the number of individuals, who do not save – while the percentage of individuals who save at home remained constant.

Credit and Borrowing in South Africa

According to the FinScope South Africa survey (2015), more people are tapping into unsecured credit via formal products. Figure 6 highlights a 10% increase in formal credit, a 1% decrease in informal credit, and a 5% decline in credit from family and friends. Individuals are using credit to satisfy their short-term immediate needs, such as food (26%), emergencies (26%), transport costs (12%), bills (10%) and clothing (10%). Regions that are particularly accessing credit are KwaZulu Natal (12%), followed by the Free State (11%) and the Western Cape (10%).

Figure 6: Sources of credit for South African adults: 2014 and 2015



(Source: FinScope South Africa survey, 2015:34)

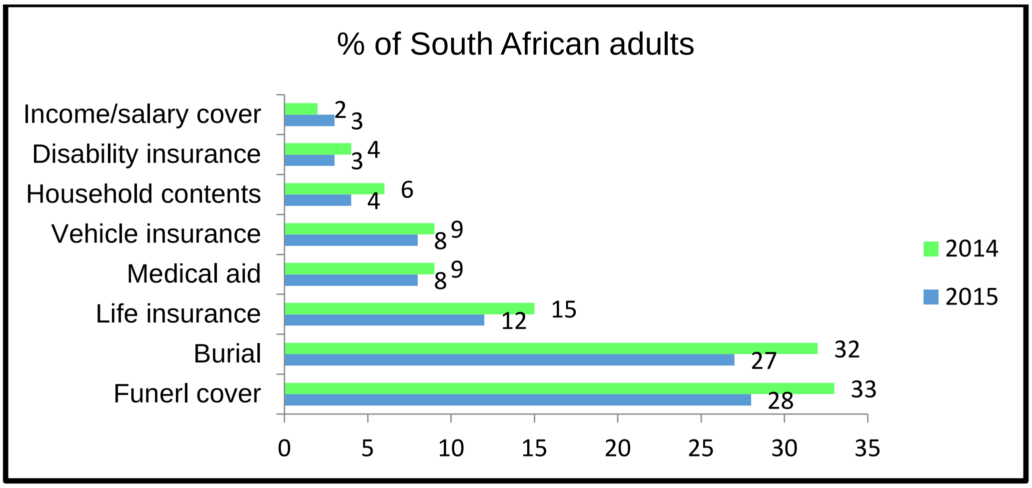
Insurance in South Africa

Of the 18.5 million South Africans that are insured, only 6.6 million have non-funeral insurance (FinScope South Africa, 2015). There has been a decline in formal (4%) and informal (8%) insurance. While the number of uninsured individuals has increased by 10%.

Figure 7 compares the percentage of South African adults insured in 2014 to 2015. There has been a decrease in the percentage of adults insured for all types of insurance, with the exception of income/salary cover, which increased by 1%.

The FinScope South Africa (2015) survey reported a decline in life insurance among the 18 – 29 year-old category, and also among individuals earning between R 1 000 – R 2 999 per month.

Figure 7: Percentage of South African adults insured by insurance type: 2014 and 2015



(Source: FinScope South Africa survey, 2015:29)

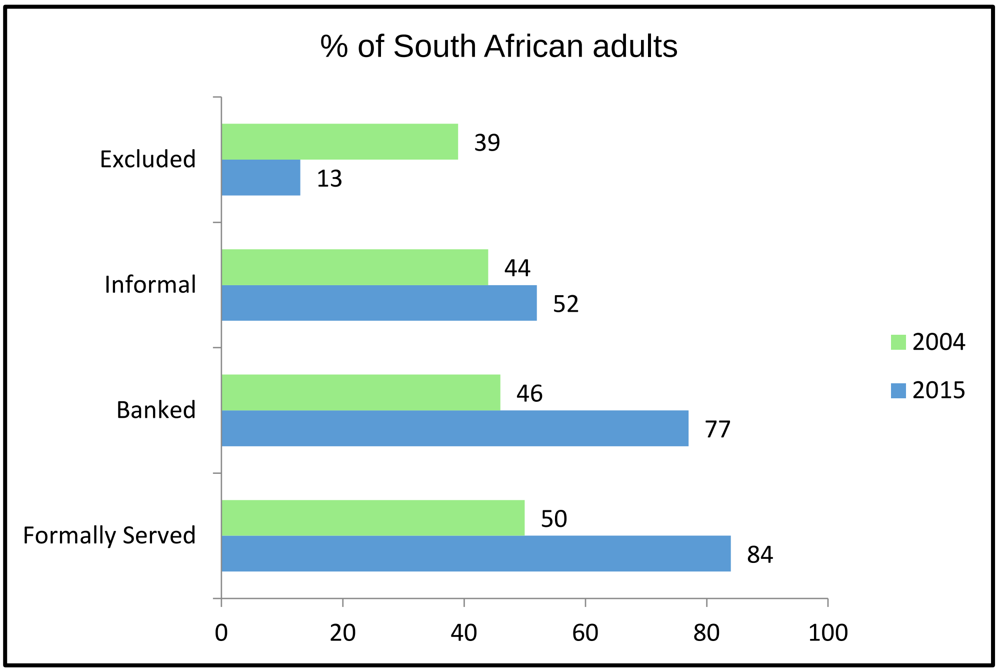
Digital Payments in South Africa

Approximately 37% of the South African adult population make use of digital-payment mechanisms on a monthly basis (FinScope South Africa, 2015). Despite the increase in smartphone penetration among South African adults, only 40% of the adult population use smartphone applications, while 31% of adults manage their finances via a mobile phone (FinScope South Africa, 2015).

Financial Inclusion Overview in South Africa: 2004 and 2015

FinScope surveys have been conducted in South Africa since 2002 and one of the survey's objectives is to measure levels of financial inclusion in South Africa (FinScope South Africa, 2014:2). Figure 8 below illustrates by means of key financial inclusion results, how financial inclusion has changed in South Africa from 2004 to 2015. The percentage of financially excluded adults decreased from 39% to 13% while the percentage of formally served adults increased from 50% in 2004 to 84% in 2015. The percentage of banked individuals increased from 46% in 2004 to 77% in 2015, while the percentage of informally served adults increased from 44% to 52% over the same time period.

Figure 8: FinScope South Africa key results: 11-year perspective



(Source: Adapted from FinScope South Africa survey, 2004 and 2015)

SOUTH AFRICAN FINANCIAL INCLUSION STRATEGIES AND INITIATIVES

The National Treasury, under the portfolio of the Minister of Finance, is the entity responsible for enhancing financial inclusion in SA. Together with the South African Reserve Bank, both entities are members of the Alliance for Financial Inclusion (AFI, 2016a). The National Treasury represents SA in the G20 Global Partnership for Financial Inclusion and the World Bank (2013) notes that as the only G20 member in Africa and as one of the BRICS countries, SA plays an influential global role in financial inclusion.

South Africa's financial inclusion journey began in 2004 (Banking Association of South Africa, 2013). Although SA does not have an explicit financial inclusion strategy (Villasenor *et al.,* 2016:92) the South African Government and the private sector have been adopting financial inclusion strategies and initiatives since 2004. These initiatives are discussed in the sections to follow.

Financial Sector Charter

The realisation that financial inclusion is a key component of economic transformation led the South African Government to formalise the Financial Sector Charter (FSC) in 2004 (GPFI, 2014:4). The FSC was a pact between government and the financial services sector to transform the sector, to increase the usage of and access to financial services, as well as to commit to ongoing financial literacy efforts (GPFI, 2014:5). However, this was a voluntary agreement, with no legal requirement for financial institutions to abide by the FSC. The FSC was designed for the provision of developmental finance, such as the financing of infrastructural developments and rural development and despite an increase in credit extension as a result of the FSC – a gap in financial intermediation still exists among the poor, black populace (Kostov, Arun, Annim & Adjasi, 2015:279).

The FSC operated from 2004 to 2008 and financial inclusion in SA increased noticeably during this period, from 61% in 2004 to 76% in 2008 (FinScope South Africa, 2014).

The FSC was replaced by the Financial Sector Code in 2012, which now places a legal requirement on financial institutions to comply with the code (GPFI, 2014:9). The Financial Sector Code seeks to align the FSC with the Codes of Good Practice for black economic empowerment (Kostov *et al.,* 2015:281).

Mzansi Account

One of SA's initiatives to advance financial inclusion among the impoverished was the introduction of the Mzansi account in 2004 (GPFI, 2014:5; Villasenor *et al.,* 2015:111). South Africa's four major banks, namely: (i) ABSA; (ii) FNB; (iii) Standard Bank; and (iv) Nedbank teamed up with Postbank (a State-owned financial institution) to launch a banking product aimed at low-end consumers without any previous access to banking (Kostov *et al.,* 2015:279).

The Mzansi account was developed to provide an entry-level account to the poorest segment of the South African population (Ismail & Masinge, 2012:105). The Mzansi initiative enabled the banking sector to offer financial services to the previously unbanked (Kostov *et al.,* 2015:279). The Mzansi initiative thus increased the level of financial intermediation as about six million South Africans had opened an Mzansi account by December 2008 (Kostov *et al.,* 2015:279).

Despite the success of the Mzansi initiative, a report by the World Bank (2013) shows that only three and a half million of the six million accounts were actively used. Kostov *et al.,* (2015:281) are of the opinion that this trend could be due to the perception among South Africans that banks charge high fees for transactions. Nonetheless, Kostov *et al.,* (2015:281) and GPFI (2014:7) assert that the Mzansi account was a major contributor to the extension of financial services to the unbanked and it resulted in improved financial inclusion in SA.

Capitec Bank

The banking sector in SA is dominated by the four major banks that account for 84% of the banking sector assets, indicating the presence of a monopsonistic structure (Kostov et al., 2015:280; World Bank, 2013:23). SA has a rigid regulatory environment with no special dispensation for non-banks and e-money providers. This requires mobile money providers in SA to be subject to the full regulatory compliance requirements of banks (World Bank, 2013:23). Rwanda's regulatory environment for example, enables bank and non-bank entities to offer mobile financial products, while in SA, companies offering mobile banking services are required to be in possession of a banking licence (Ismail & Masinge, 2012:105). Villasenor *et al.,* (2015:106) recognises Rwanda's relaxed regulatory environment as one of the main contributors to increased financial inclusion rates in the country. According to a

FinScope (2012) survey conducted in Rwanda, financial exclusion rates have dropped from 52% in 2008 to 28% in 2012.

Community savings and credit co-operatives (SACCOs) have also contributed to the increased financial inclusion rates in Rwanda, especially among the underserved communities (Villasenor *et al.,* 2015:106). Currently, more than 90% of Rwandans are located within a five-kilometre radius of a SACCO, thus eliminating the distance barrier (Villasenor *et al.,* 2015:106). In SA, the co-operative banking sector, which aims to provide banking services at lower fees, remains insignificant (World Bank, 2013:28). Despite the introduction of the Co-operative Banks Act in 2007 – which requires that all financial co-operatives in SA with more than R1 million in deposits and 200 members, be regulated by the Act, there were only two registered co-operatives and 19 eligible for registration at the end of 2012 (World Bank, 2013:28).

Consequently, a large number of weakly regulated operators have emerged to cater to the needs of the less-developed economy. Examples of these operators are: informal stokvels (rotating savings and credit associations), financial co-operatives, which are smaller than other financial institutions, and non-bank credit providers (World Bank, 2013:24). There are no institutions in SA to leverage relationships and links to these informal enterprises, resulting in high opportunity costs in restricting market entry to banks alone (World Bank, 2013:28).

However, since the entry of new players, such as Capitec Bank in 2001, the banking structure in South Africa has gradually shifted towards a competitive structure (Kostov *et al.,* 2015:280; World Bank, 2013:23).

The Capitec Bank business model aims to promote the economic welfare of the communities in which it operates through client engagement, financial literacy programs, interventions at schools and corporate social investment (Capitec, 2016:17). The Capitec Bank business model does not apply demographic segmentation by income level. However, it targets all clients, regardless of their income level (Capitec, 2016:23).

Capitec Bank offers a unique and functional banking solution to all its clients, called Global One (Capitec, 2016:21). Global One offers each client a transaction account, four savings accounts, access to credit, mobile phone banking and internet banking for a monthly fee of R5.25 (Capitec, 2016:21).

The World Bank (2013:24) notes that Capitec Bank has taken an increasing market share from the bigger banks in SA. According to the Capitec Bank Annual Integrated Report (2016:22), approximately 100 000 new clients join Capitec Bank per month and by the end of February 2016, the bank had a customer base of 7.3 million, approximately 20.6% of the South African banking market. The number of Capitec Bank branches in SA, increased by 52 to 720 from 2015 to 2016 (Capitec, 2016:22). While the number of ATMs increased by 287 to 3 705 over the same period (Capitec, 2016:22).

The entry of new players into the banking sector has had a positive impact on financial inclusion as the increase in competition can lead to product innovation and reduced customer costs (World Bank, 2013:23). Since the arrival of Capitec Bank in SA, the four major banks have rolled out low-cost branches and introduced low-cost and attractive transactional banking products (World Bank, 2013:24).

National Credit Act

Prior to the introduction of the National Credit Act No. 34 of 2005 (NCA), many South Africans were excluded from the credit market as credit was predominantly made available on a secure basis (Capitec, 2016:25). The NCA was introduced into SA, with the aim of ensuring broader access to credit for consumers previously excluded from the financial credit market (Capitec, 2016:25). This goal was achieved by enabling credit providers to grant larger loans over a longer period to these new clients (Kostov *et al.,* 2015:281; Capitec, 2016:25).

The NCA was intended to improve opportunities for asset accumulation for previously disadvantaged South Africans by: (i) improving access to finance; (ii) reducing the cost of finance; and (iii) increasing consumer protection (Kostov *et al.,* 2015:281). However, consumers were using the increased access to unsecured credit as life-improvement finance, which led to slow growth in mortgage markets and a peak in unsecured credit in 2012 (Capitec, 2016:25). This unintended consequence of the NCA led to recent regulatory developments to reduce the market supply of unsecured debt. These regulations include: (i) the NCA Affordability Regulations, which became effective in September 2015; (ii) the Review of Limitations on Fees and Interest Rates, which became effective in November 2015; and (iii) the proposed Credit Life Insurance Regulations (Government Gazette, 2013).

South African Social Security Agency Grant Program

Another program relevant to financial inclusion in SA is the South African Social Security Agency's (SASSA's) grant program. SASSA's purpose is to alleviate poverty, social exclusion and inequality through a comprehensive social protection system, which consists of seven types of grants (Department of Social Development, 2016).

In March 2012, SASSA in conjunction with MasterCard, introduced a biometric grant-payment-disbursement system (South African Government, 2013). This new system was introduced to reduce fraudulent grant applications and collections, as well as to reduce grant administration costs by distributing all grant payments electronically (South African Government, 2013).

Grant recipients have a bank account opened for them, with no monthly fees attached, to save and transfer money. The SASSA MasterCard card can be used at any outlet that accepts MasterCard cards (SASSA, 2013). The grant recipients can make purchases, check account balances and withdraw cash at till points, incurring no costs, at selected South African retailers (SASSA, 2013).

By moving away from the cash-payment system to the MasterCard system, approximately one fifth of the South African population now enjoy the benefits of a formal banking product (South African Government, 2013). As noted by the FinScope South Africa (2014) survey, 34% of the banked population in South Africa owned a SASSA MasterCard card. However, approximately 18% of holders are not utilising their cards to withdraw cash, make payments or check their accounts (FinScope South Africa, 2014). This limited use could be attributed to holders being unaware that these accounts can be utilised for saving and other purposes. There is a misconception that the accrual of money in these accounts results in the holder becoming ineligible to receive future benefits; and the confusion relating to fees also limits the use of the SASSA MasterCard card (World Bank, 2013:33 This paper does not elaborate on the current SASSA debacle where the Constitutional Court declared the R10 billion contract with Cash Paymaster Services (CPS) as invalid.

Shoprite and Pick n Pay Money Transfer

Shoprite and Pick n Pay have a money transfer solution which enables individuals to securely send or receive money at any Shoprite and Pick n Pay store around SA (Shoprite, 2016; Pick n Pay, 2010). Involved parties are not required to have a bank account and must be in possession of a valid South African identity document to use this service. The only cost involved is an affordable transfer fee paid by the individual who does the money transfer, while there are no costs incurred by the individual who receives the money (Shoprite, 2016; Pick n Pay, 2010).

Mobile Banking

As discussed earlier, mobile banking has a great potential to advance financial inclusion. In SA, companies that are offering mobile banking services are required to be in possession of a banking licence (Ismail & Masinge, 2012:105). All the major banks, including Capitec Bank, provide mobile banking services (South Africa Info, 2016). The main mobile banking initiatives in South Africa are outlined below.

M-Pesa Money Transfer

In 2010, Vodacom collaborated with Nedbank to launch the M-Pesa money transfer in SA (Ismail & Masinge, 2012:105). This initial launch was not as successful as envisaged, which led to the re-launch in 2014 (Villasenor *et al.,* 2015:110).M-Pesa makes use of Unstructured Supplementary Service Data (USSD) technology and it is available to South African Vodacom subscribers (Ismail & Masinge, 2012:105; Vodacom, 2016). As an M-Pesa user, individuals do not need to have a bank account and there are no monthly fees or minimum balance requirements (Ismail & Masinge, 2012:105; Vodacom, 2016).

Despite the success of M-Pesa in Kenya, it has not proven to be successful in SA, even after its re-launch in 2014. Vodacom has decided to discontinue the M-Pesa service by the end of June 2016, as the service has not yielded the desired results (Vodacom, 2016). Shop and Mall (2013) warned that M-Pesa might never be a success in SA. Unlike other African economies, SA has been a cashless economy for a number of years, with all the banks offering some type of cashless product, such as credit and debit cards and electronic fund transfers (Shop and Mall, 2013). With a cashless system already in place, Shop and Mall (2013) were of the opinion that the introduction of another cashless system in SA would be unnecessary and ineffective. Arthur Goldstuck, the managing director at the technology research firm, World Wide Worx, attributes the failure of M-Pesa to the more competitive mobile market and the larger banked population in SA compared with other African countries (ZDnet, 2012).

WIZZIT Banking Initiative

WIZZIT Payments (Pty) Limited is a provider of basic banking services for the unbanked and under-banked in SA and it was launched in 2004 by the WIZZIT Bank, a division of the South African Bank of Athens. WIZZIT services are based on a mobile phone banking system, which uses the "pay-as-you-go" model, where users pay per transaction (WIZZIT, 2004). There are no monthly fees attached to the WIZZIT product and it is available on the MTN and Vodacom networks (Ismail & Masinge, 2012:105).

Mobile Money

Mobile money is a safe and inexpensive way to bank and it is accessible to South African customers (aged 16 and older) on all mobile networks. Each mobile money customer may only open one mobile money account, which is subject to successful fraud-and-risk control checks (MTN, 2013). Individuals with a mobile money account can send money instantly to any South African mobile phone number; deposit and withdraw cash at a participating retail store or mobile money agent; receive and make payments into a mobile money account through an electronic fund transfer as well as withdraw cash at any ATM using a Mobile Money Visa Card.

Despite SA's sophisticated banking infrastructure, Robb (2015) warns that mobile money could be less successful in SA compared with other African countries. While mobile money has revolutionised financial services in Kenya and Tanzania, this may not be the case in SA – due to the country's rigid regulatory framework (Robb, 2015).

Unlike SA, Tanzania gradually adopted mobile money, by providing a platform for innovative and modern products and services to emerge while it was developing policies relevant to the changing financial landscape (Robb, 2015; Villasenor *et al.,* 2015:116). In 2014, the major mobile money providers in Tanzania reached an agreement to allow their platforms to interoperate, making Tanzania the first African country to have mobile money platform interoperability in place (Robb, 2015). The regulations in East Africa are not as stringent as those of SA (Donnelly, 2015). Payment providers in SA are subject to the full regulatory compliance requirements of banks as there is no special dispensation for non-banks and e-money providers (Robb, 2015; Donnelly, 2015).

SA is in the process of implementing interoperability across payment platforms, which could aid further advancement of financial inclusion in the country as well as providing consumers with a much bigger payment network (Robb, 2015; Villasenor *et al.,* 2015:112).

CONCLUSIONS AND RECOMMENDATIONS

The research objective of this paper was to evaluate the effectiveness of the financial inclusion strategies and initiatives adopted by the South African Government and the private sector. The research paper highlights the importance of financial inclusion and creates awareness of the financial inclusion initiatives adopted by the South African Government and the private sector since 2004.

SA has a sophisticated financial sector that was early to commit to policies for financial inclusion compared to other developing countries. Despite the sophisticated level of the banking system in SA, the 2015 FinScope South Africa survey noted a concerning number of urban individuals from LSMs 1 - 2 who are financially excluded. This reveals that there are gaps in the level of access to banking and banking products in SA. South Africa's big four banks are capable of servicing the advanced economy but they are limited in servicing the less-developed economy (World Bank, 2013:34). For example, it is mostly banks that can provide payment services and collect deposits in SA (World Bank, 2013:34).

Consequently, a large number of weakly regulated operators have emerged to cater to the needs of the less-developed economy. Examples of these operators are: informal stokvels (rotating savings and credit associations), financial co-operatives, which are smaller than other financial institutions, and non-bank credit providers (World Bank, 2013:24). There are no institutions in SA to leverage relationships and links to these informal enterprises, resulting in high opportunity costs in restricting market entry to banks alone (World Bank, 2013:28). In an attempt to address the potential exploitation of the poor, the World Bank (2013:28) and the Brookings FDIP report (2015:112) suggest that the South African Government introduce a tiered-licensing system that opens the market to informal institutions that can tailor services to unbanked individuals. Furthermore, SA should take lessons from its African counterparts such as Rwanda, Kenya and Tanzania, where mobile money has had a positive influence on financial inclusion, largely due to the less stringent regulatory environments in these countries.

SA should hasten with the implementation of interoperability across payment platforms, as this could advance financial inclusion in the country as well as provide consumers with a much bigger payment network.

The 2015 FinScope South Africa survey noted an increase in the level of unsecured lending to satisfy short-term needs. Should this trend persist, the financial leaders in SA should assess the risk of over-indebtedness which could result in more individuals relying on informal credit. These unregulated informal credit providers may fail to consider the financial stability of lenders, thus exposing lenders to the risk of defaulting on their credit commitments.

Despite an increase in the level of smartphone usage as indicated by the 2015 FinScope South Africa, the level of optimisation of digital financial services remains limited. Improved digital product design and awareness-building are important to promote full digital financial inclusion.

While 34% of the banked population in SA own a SASSA MasterCard card, about 18% of holders are not utilising SASSA accounts optimally (FinScope South Africa, 2014). This limited use could be attributed to holders being unaware that these accounts can be utilised for saving and other purposes. There is a misconception that the accrual of money in these accounts results in the holder becoming ineligible to receive future benefits; and the confusion relating to fees also limits the use of the SASSA MasterCard card (World Bank, 2013:33). SASSA should consider a holistic approach to increase the use of the SASSA MasterCard card that includes improved communication on product features and pricing, as well as broader financial education to correct the misconceptions related to saving.

South Africa has experienced a noticeable increase in financial inclusion over the past 12 years from 61% in 2004 to 89% in 2016. This indicates that overall, the financial inclusion strategies and initiatives adopted by the South African Government were successful, as SA is 1% away from its NDP goal of 90% financial inclusion by 2030.

South Africa's next step should be to finalise its national financial inclusion strategy and to ensure that the strategy is effectively implemented through the designation of dedicated financial inclusion champions (Villasenor *et al.,* 2016:93).

Appendix 1: The Brookings FDIP's indicators to assess financial inclusion

Scoring Dimensions	Indicators
Country commitment	• National-level participation in international financial inclusion-orientated networks • Existence of specific digital financial services commitments by a government entity • Existence of a national financial inclusion strategy • Existence of quantifiable financial inclusion targets • Existence of a recent demand-side financial services survey conducted or supported by a government entity • Existence of a dedicated financial inclusion body within the public sector
Mobile capacity	• percentage of unique mobile subscribers • percentage of the population covered by a 3G mobile cellular network • Number of mobile money service deployments • Availability of person-to-person domestic transfers via mobile money services • Availability of bill payment via mobile money services • Availability of international remittances via mobile money services
Regulatory environment	• Agent banking • Mobile network operator-led mobile financial service deployments • E-money regulations • Mobile money platform interoperability

	• Proportionate know-your-customer processes • Cash-in/Cash-out at agent locations
Adoption	• Traditional account penetration • Traditional account penetration among rural adults • Traditional account penetration among lower-income adults • Traditional account penetration among women • Borrowing from a financial institution • Saving at a financial institution • Debit card use • Credit card use • percentage of adults utilizing online bill payment and purchases • Mobile money account penetration • Mobile money account penetration among adults from rural areas • Mobile money account penetration among lower-income adults • Mobile money account penetration among women • Mobile phone used to receive salary or wages • Mobile phone used to make utility payments

(Source: Villasenor *et al.,* 2015:130)

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MAF010 **SCENARIO PLANNING AS BARGAINING TOOL: A STRATEGY-AS-PRACTICE PERSPECTIVE**

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ABSTRACT:

The purpose of this paper is to report on the findings of a study that employed a social practice theory lens to the strategising practices of CAs in the South African mining industry. The key strategy-as-practice principles of 'practices', 'praxis' and 'practitioners' that developed from Bourdieu's social practice theory principles of practice, habitus and field, were applied in the study. CA strategists were viewed as unique individuals who practice their strategising within social contexts.

The main findings upon which this study report, describe how CAs strategic managers adapted scenario planning to serve as a bargaining tool during their budgeting processes on a strategic level. They did this to successfully negotiate for finance from corporate head office and to compete with other companies in the group to gain an advantage over competitors for limited corporate funding.

These practice relevant insights are significant to understand the development of CAs as strategists from both an accounting profession and accounting education perspective. Such knowledge could contribute to accounting education to be better informed of practice – of how CAs really act and interact as professional strategic managers. Professional CA strategists presented themselves as skilled leaders that adapt to their environment and outperform their peers through the innovative use of scenario planning. In addition, detailed descriptions presented by this paper could contribute to the body of knowledge in strategic management by employing a social practice theory perspective to how CAs who make up a significant number of strategists in South African companies, perform strategising in the South African mining industry.

Key words:
Chartered Accountants, scenario planning, South African mining industry, strategy as practice, strategy tools.

INTRODUCTION

According to the South African Institute of Chartered Accountants (SAICA, 2011), approximately a third of all directors in South Africa are chartered accountants (CAs) with only 11% of those CA directors also holding master's degrees in business administration (SAICA, 2011). This begs the question: how do these CAs who are regarded as strategists, perform their everyday strategising practices? No research could be identified that describes the strategising practices of CAs in particular. This leaves a knowledge gap from an accounting education perspective regarding the development of CAs as strategists, as well as from a strategic management perspective as CAs bring with them a unique background in accounting and finance when they do strategy in practice.

At the same time, academic literature on accounting education reports on a much debated accounting education gap (Chabrak & Craig, 2013; Dellaportas, 2015; Low, Davey and Hopper, 2008; Patel, Millanta, & Tweedie, 2016; Yap, Ryan & Yong, 2014). Accounting educators are criticised of not adequately equipping accounting students with the abilities and qualities required of them to be successful in the modern day global workplace. These critics call for significant change in accounting education across the world and the importance of bringing real life insight and application to accounting education is instead being emphasised. There is an increasing appreciation of the value for accounting education through more integration between accounting theory and practice by means of partnership with accounting professionals (Buckless & Krawczyk, 2016; Bunney, Sharplin & Howitt, 2015; Chabrak & Craig, 2013; Dellaportas, 2015; Low et al., 2008; Lubbe, 2014; Maroun, 2012; Patel et al., 2016; Yap et al., 2014).

Coinciding with calls for a better practice perspective in accounting education, various other disciplines have also started employing a social practice lens to inform theory with practice. Some of these disciplines include business studies (Ramirez-Pasillas & Evansluong, 2017), information technology (Alshaikh et al., 2016), public administration (Jambari & Hamid, 2017) and health sciences (Lee, Lheureux, & Oza, 2017) amongst others. Accounting and finance have followed suit with studies such as a practice perspective to investigate the role of intellectual capital reporting in organisational transformation (Yu, Garcia-Lorenzo, & Kourti, 2017) and a proposal for accounting for practice in an 'age of theory' by employing Charles Taylor's theory of social imaginaries (Hodge & Parker, 2017). In particular, the strategy-as-practice perspective of strategic management has received much attention in academic literature. This perspective views strategising from a social practice perspective and as something that takes place when so called 'practitioners', 'practices' and 'praxis' meet in a social web of strategising activity (Whittington, 1996; Whittington, 2016; Cloutier & Gond, 2016)

This paper aims to report on how CAs successfully adapted and combined scenario planning, a popular strategy tool, with their budgeting process to gain an advantage over internal competitors for financial capital from corporate head office. This is achieved by employing a social practice theoretical lens that answers to calls for more practice relevant research. The study was conducted within the South African mining industry as social practice theory situates practitioners' practices and praxis within a context that plays a part and influences their everyday strategising activities on a micro level. The South African mining industry is traditionally seen as South Africa's main economic sector, but one which has been facing unprecedented challenges since South Africa became a democracy in 1994.

By describing in detail how CAs engage with scenario planning during their budgeting process, this research could contribute to the understanding of the use of strategy tools within the broader strategy-as-practice discipline (cf. Jarzabkowski et al., 2016; Jarzabkowski & Kaplan, 2015; Whittington, 2015). In particular, this paper aims to contribute to accounting education by adding to the knowledge base on the real life practices of CAs as strategists. In this context, part of CAs' abilities as strategists lies in their ability to translate their technical accounting knowledge into strategic management practice (SAICA, 2013). This could then also provide insight into how CAs transforms and develops as strategists, which could possibly contribute to future accounting education in South Africa. Descriptions of successful strategising practices on a business level during times of austerity measures in the mining industry could be of benefit for decision makers such as directors of mining companies. By employing a qualitative exploratory methodology through the application of a social practice theory lens in order to produce *practically relevant* information, a methodological contribution is made to accounting research which traditionally focuses on quantitative measures to conduct research in the field.

The paper continues by developing a theoretical foundation in the next section with reference to a strategy-as-practice perspective, the use of strategy tools, scenario planning as strategy tool and the South African mining industry context of the study. Thereafter the qualitative research method is explained, followed by a discussion of the research findings. The paper concludes by highlighting the value of practice relevant insights into CAs as "leaders with a particular ability in accounting" and proposing areas for future research.

THEORETICAL FOUNDATION

A strategy as practice-perspective

To understand how CAs use strategy tools such as scenario planning, focus must be placed on their everyday strategising practices – redirecting the research emphasis away from the strategy process, form and content (Jarzabkowski & Kaplan, 2015; Whittington, 1996; Whittington, 2006; Whittington, 2003; Cloutier & Gond, 2016; Tidstrom & Rajala, 2016; Whittington et al., 2016). Traditionally, the context within which strategists performed their strategising and the individuals who do the strategising, did not receive much attention (Jarzabkowski & Kaplan, 2015; Smets et al., 2016; Jarzabkowski et al., 2016; Whittington, 2003; Whittington, 2006). Strategy was traditionally independently researched as a property of the organisation. This perspective created a gap between the scholastic view of researchers: the text book theory, and the practical view of what actually takes place in practice (Jarzabkowski & Kaplan, 2015; Whittington, 2016).

There have increasingly been calls to consider the many everyday processes and activities of an organisation that together forms strategy. In response, focus was increased on the social practice view of strategising – as something is done by people in specific contexts (Jarzabkowski & Kaplan, 2015; Roper & Hodari, 2015; Vaara & Whittington, 2012; Whittington, 1996). As such, the focus moved from strategy as a core competence of an organisation to the practical competence of the strategist, that is, in this study CAs as strategists in the South African mining industry (Jarzabkowski, Spee & Smets, 2013; Jarzabkowski & Kaplan, 2015; Whittington, 1996; Whittington, 2016). From such a social practice view, the strategy-as-practice perspective has two meanings: "practice" as an attempt to view practitioners in their world of strategising whilst simultaneously also committing to social practice theory (Jarzabkowski & Kaplan, 2015; Vaara & Whittington, 2012; Cloutier & Gond, 2016).

Bourdieu is one of the most prominent social practice theorists of modern times and has had a key influence on the strategy-as-practice perspective. Bourdieu identifies practice, habitus, and field as the three main concepts that form the basis of his social practice theory (Bourdieu & Wacquant, 1992). These three concepts subsequently also formed the foundation upon which the strategy-as-practice perspective was developed (Jarzabkowski et al., 2013; Vaara & Whittington, 2012).The concepts of practice, habitus and field are briefly described below.

Practice: From a social practice theory perspective the everyday actions and interactions of any individual is regarded as part of a social network. Practices form the substructure underneath the large array of small action. The concept of practice therefore refers to one of the main aspects of social research, namely how social structures and human behaviour link together so that a person is a social creature that is connected to a context defined by the practices of the society (Jarzabkowski et al., 2016; Vaara & Whittington, 2012).

Habitus: Habitus is the unintended, routines that comprise a collection of actions, characterised by the context in which they exists (Bourdieu, 1990). This series of actions which automatically organises as strategies, prescribes behaviour that is accepted by the collective of fellow practitioners as they act and interact in a structured social environment. These habitus give rise to social practice in a particular social context.

Over time, possible changes may occur to the habitus that exists in an environment. For example, a change in style of an individual or specific group of individuals may take place. This is due to individual participants' unique character and background and their interpretation of the existing set of rules and socially acceptable ways in which the context operate. By starting to view and act differently, the practitioner creates a gap between practice and the practitioners' real life activities. This gap adds value to the social construct through the changes that it brings. Practitioners' reflexive and creative interpretation of the habitus creates a widening difference between their expectations and experiences of practice. Such differences result in alterations in context and knowledge.

Field: Individuals participate through their habitus in an everyday network of social practices in a field. These individual practitioners compete for limited social resources, for example social capital (Bourdieu, 1990). In this sense, a field is a combination of the network of social structures, relationships and social positions where individuals' habitus meet. It is therefore important to gain a thorough understanding of particular field when attempting to understand the underlying assumptions, acceptable social rules and practices that take place in the particular social construct. As a result, as the habitus and resultant practices of individuals can change, so can the characteristics of a field.

A field can be seen as a living "form of life" (Bourdieu, 2000:115), based on the unique characteristics of its participants and their practices, and on that changes as the habitus and practices of participants evolve. For example, fields are characterised by the forces and competition that exist between practitioners to gain social capital – to install their dominant way of going about their everyday activities. Practitioners' habitus that develops into practices create a competitive environment in the field whereby the most skilled practitioner that understands the dynamics of the field the best, prospers.

A sociological view of strategic management was developed into a commonly referred to strategy-as-practice perspective. Seminal authors of social practice theory include social theorists and philosophers such as Wittgenstein (1953), Goffman (1959), Heidegger (1962), Foucault (1984), Giddens (1984), Latour (1987) and Barnes (2001). These authors share with Bourdieu (1990) the view that social practices join people and contexts. As mentioned, Bourdieu's practice theory is regarded to have had the biggest impact on the strategy-as-practice perspective. The three important concepts of Bourdieu's social practice theory as discussed above, served as foundation for the development of the three principles that inform the strategy-of-practice perspective. These three principles are commonly referred to as 'practitioners', 'practices' and 'praxis'. Strategic management as social practice is defined as "a situated, socially accomplished activity constructed through the interactions of multiple actors" whereby strategic management takes place at the centre of practitioners, practices and praxis (Jarzabkowski et al., 2016; Whittington, 2016).

If strategy is a pattern in a stream of long-run goal-directed decisions and activity over time (Chandler, 1962) on behalf of owners in order to deliver a unique mix of values (Porter, 1996), then strategising is the ongoing interplay between strategy practitioners and strategy practices in shaping strategy over time (Jarzabkowski & Kaplan, 2015). The three principles of a strategy-as-practice perspective combine to define the general strategy-as-practice research parameters. Practitioners, practices and praxis refer in essence to the role and identity of individuals (strategists/strategy practitioners), the methodologies of strategising and strategy tools (practices), and the micro level, every day strategy work actions (praxis) (Vaara & Whittington, 2012; Whittington, 2006; Cloutier & Gond, 2016; Jarzabkowski et al., 2016). Social practice theory integrates these three concepts as one to provide a social practice theoretic view of strategic management. The three principles of practitioners, practices and praxis are defined in the next section.

Practitioners: As a strategy as practice perspective view strategic management as something done by individuals, practitioners are seen as unique individuals who base their strategising praxis on strategising practices. This view places strategy practitioners at the centre of strategic management. These practitioners are seen as skilled strategists who interpret their social constructs within the fields that they perform their strategising practices, to outperform their peers. Their strategising praxis depends on their skills and knowledge of strategic management and their ability to understand their competitive fields (Bourdieu, 1990; Erden et al., 2014; Lounsbury & Beckman, 2014; Whittington, 2006; Whittington, 2016). To explain this concept, Bourdieu (1990) likens practitioners to card players who may play the same hand differently according to their skills and the flow of the game, where these practitioners are seen as artful interpreters of practices. Practitioners are therefore important because their practical skills and unique approach to strategic management as practice make a difference.

However, strategy practitioners' practical skills should not automatically be assumed (Grebe, Davis & Odendaal, 2016). The case is made that individuals on a functional level of business are often promoted to a management level of business due to their functional abilities. For example, such individuals may be excellent accountants on a functional level and exhibit good knowledge of the business, but might not possess the necessary strategic management knowledge for their new position. Therefore, focus must be placed on the professional knowledge and skills required of strategists, like mastery of analytical concepts and techniques, social and influencing skills, and group acceptance of the practitioner as a player in strategic decisions (Whittington, 2016). Moreover, strategy-as-practice perspective research should develop a deep understanding and insight into the everyday practices and praxis of strategists such as accountants in those positions, to know how they perform strategic management. Such an understanding could shed light on the important and unique qualities that these strategy practitioners bring to contribute to strategic management in practice.

Whilst traditional strategic management research provides insight into the practices of top managers, research within the strategy-as-practice perspective recognises different kinds of strategy practitioners (Vaara & Whittington, 2012). The strategy-as-practice perspective extends the research focus beyond traditional business school strategists to include all practitioners of strategy, and includes how the roles and identities of practitioners are constructed through their practices.

Practices: Within the context of a strategy-as-practice perspective, practices entail the strategising methodologies that strategists employ as part of their strategising practices. These practices develop from everyday strategy routines (habitus) namely the norms and ways of strategic thinking, acting and using strategy devices such as strategy tools during strategising (Jarzabkowski & Kaplan, 2015; Vaara & Whittington, 2012; Whittington, 2015; Cloutier & Gond, 2016).

Organisational and other contextual practices usually affect both the process and the outcomes of strategies and strategising practices rely on the influences of their social contexts (Jarzabkowski & Kaplan, 2015; Whittington, 2016). Strategising practices are also multidimensional, with practices at one dimension being organisation-specific, alive in the routines, standard operating procedures and cultures of the organisation that shape specific ways of doing strategy. In turn, at another dimension, the dynamics at an external context may also be defined by the strategy-as-practice perspective, whereby the practices originating from the larger social fields of an organisation and even at societal level at a still higher level, are recognised to play an important practical role (Vaara & Whittington, 2012; Whittington, 2006; Whittington, 2016). From a strategy-as-practice perspective, strategising practices are complex, yet flexible; serving to include and exclude, legitimate and de-legitimate, and even to change the concept of how an organisation perceives itself from a long and short term point of view (Whittington, 2016).

Whilst strategising practices consist of the methodologies that strategists employ, these practices are carried out through the use of strategy tools by strategy practitioners (Jarzabkowski & Kaplan, 2015; Vaara & Whittington, 2012; Whittington, 2006; Whittington, 2015). Extensive research has been done on management and management's strategising practices, including the various strategy tools and techniques. Yet, relatively little published research exists on how these practices are performed through the tools that practitioners use (Jarzabkowski & Kaplan, 2015; Vaara & Whittington, 2012; Whittington, 2006). Some of these studies include Jarratt and Stiles's (2010) activity theory frameworks on how strategy tools are used and Jarzabkowski and Seidl's (2008) study of socio-material practices such as meetings, workshops and away days. Jarzabkowski and Kaplan (2015) provide a framework to apply to the practical working of the rationality of strategy tools-in-use, with Idoko and

MacKay (2016) describing strategy tools as activation devices for strategic management. Cheng and Havenvid (2017) continue with an investigation into strategy tools form a socially interactive perspective and Vesalainen, Hellstrom and Valkokari (2017) describe the uses of managerial tools from a practical perspective of networks. These studies that were conducted from a social practice theory perspective contributed to the exploration of largely unnoticed practices in the past, but this paper calls for more practices to be discovered such as how CAs as strategists engage with strategy tools.

Praxis: Lastly, within the social practice theory domain, focus on individuality is retained by researching people's activity in practice within the wider practices concept. Form a strategy-as-practice perspective this focus is referred to as 'praxis'. Praxis takes a micro activity-based view of the strategising practices of practitioners, which includes the many small actions that make up the planning, formulation and implementation of a strategy. Such praxis exists on all levels of business and are the routine and non-routine, and formal and informal actions that are carried out every day. As praxis are the actions carried out within the strategy process, understanding praxis requires of researchers to investigate not only *what* is done, but once again also *how* it is done (Whittington, 2016) and by *whom*.

Previous research on praxis included Ambrosini, Bowman and Burton-Taylor's (2007) study of the actual activities of staff such as how they speak with customers; Samra-Fredericks' (2003) study of the lived experience of managers, Sillince, Jarzabkowski and Shaw's (2012) study of different rhetorical actions that can create ambiguity to lead to strategic action, and Lê and Jarzabkowski's (2014) research on the role of conflict during strategy implementation. Despite more emphasis on a strategy-as-practice perspective in recent research, this practice perspective warrants more research in the field to provide more insight into how strategists perform their strategising practices, and particularly, how they engage with strategy tools (cf. Jarzabkowski et al., 2016).

Strategy tools

From a strategy-as-practice perspective strategising practices are enabled by the application of strategy tools by strategy practitioners. These practitioners are seen as artisans who model the strategy tools that they use in a creative way to give shape to their strategies (Jarzabkowski & Kaplan, 2015; Arnaud, Mills & Matone, 2016). During the strategising process, strategy tools serve as key devices and often the foundation upon which a strategy process is built (Jarzabkowski & Kaplan, 2015; Rigby, 2015). These tools are credited for decoding strategic plans into operational actions during implementation (Whittington, 2015).

Some of the key objectives that users of strategy tools aim to achieve when utilising strategy tools, are (Rigby, 2015):

1. strategic decision making is more balanced in that the subjective views of the strategist is removed from the decision and the decision making process is more independent and transparent;
2. the organisation's strategy becomes clearer through the use of strategy tools; and
3. innovative solutions and original perspectives are encouraged and enabled through the use of strategy tools.

Academic literature show that strategists prefer to use on average between one and nine strategy tools as part of their strategy processes (Rigby, 2015). Strategists have the choice of a wide variety of strategy tools to use and past research indeed reports a vast range of the tools that are being used by strategists (Jarzabkowski & Kaplan, 2015). The five most popular and used tools based on a review of academic literature, include in order of popularity SWOT analysis, core competence analysis, Porter's five forces, scenario planning and strategy meetings/workshops/brainstorming (Rigby, 2015; Frost, 2003; Gunn & Williams, 2007; Jarzabkowski & Giulietti, 2007; Stenfors et al., 2007; Jarzabkowski & Kaplan, 2008; O'Brien, 2011; He, Antonio & Rosa, 2012; Knott, 2008; Wright, Paroutis, & Blettner, 2013; Jarzabkowski & Kaplan, 2015; Whittington, 2015. This paper reports only on the findings of the use of scenario planning as bargaining tool by CAs. The next section will provide a brief description of scenario planning as a strategy tool.

Scenario planning

Ever since its creation in the 1960s, scenario planning has drastically increased in popularity after dramatic incidents such as the well-known 9/11 terrorist attacks in the USA in 2000, and extensive mining industry strikes in South Africa in 2012 that lead to the locally well-known Marikana incident (cf. Oliver & Parrett, 2017). Locally, Ilbury and Sunter's (2001:15) ground-breaking developments on scenario planning, particularly also in the South African mining industry, draws a comparison between strategists and foxes whose "intuitive response is what allows them to survive in a changing environment" and further describe strategists as beings who must be highly agile in different business scenarios (Ilbury & Sunter, 2001).

Scenario planning entails the investigation of potential events that may take place in the future and the preparation for such potential events (Konno, Nonaka & Ogilvy, 2014; Oliver & Parrett, 2017; Rigby, 2015). Unlike the well-known Porter's five forces framework, scenario planning provides a less one-dimensional view of possible futures which in turn gives strategists the opportunity to pro-actively prepare for potential events (Balarezo & Nielsen, 2017; Rigby, 2015). Moreover, research shows that scenario planning improves strategic decision making and organisational performance and allows an organisation to 'pressure test' strategic planning against the unexpected (Rigby, 2015). Scenarios can further be described as theoretical environmental uncertainty (Balarezo & Nielsen, 2017; Ilbury & Sunter 2001; Konno et al., 2014; Rigby, 2015; Phandis, Caplice & Sheffi, 2016). Scenario planning then serves to builds a common ground between different stakeholders by creating a platform for different interpretations and focusing attention on alternative futures.

In general theory, the main steps in the scenario planning process are (Konno et al., 2014; Rigby, 2015):

1. select a specific period to investigate;
2. classify existing strategic conventions and systems;
3. create scenarios of possible (realistic) future events;
4. evaluate the effect of the various scenarios on business operations;
5. create action plans based on the most probable scenarios and preferred results;
6. monitor scenarios as they develop against the organisation's strategic plans; and
7. adjust strategic planning and direction if needed.

Academic literature claims that "scenario planning remains an important yet academically understudied strategic intervention technique utilised by many firms – particularly multinational firms faced with ever-changing conditions in their external environment" (Balarezo & Nielsen, 2017:31; Phandis et al., 2016). The findings reported on in this paper answers to Balarezo and Nielsen's (2017) call with detailed, rich information on how CAs engaged with scenario planning as bargaining tool.

The South African mining industry

South Africa is well known for its mining industry, which contributes a major part of international mining commodities. It is also the largest economic sector in South Africa, contributing to 7.1% of the national gross domestic product in 2015 and employing 3% of the total South African job market (Humby, 2016; Chamber of Mines of South Africa, 2017). Despite its key role in the South African economy and as well as the country's National Development Plan of 2030, it has experienced significant challenges and a general decline in production in recent years. Some of these challenges are a global economic recession, uncertain domestic regulatory concerns related to mining licences, safety regulation and affirmative transformation legislation, infrastructure development restraints and an often volatile local labour market that is prone to seasonal strikes (Chamber of Mines of South Africa, 2017; Gcaza & Urban 2015; Humby, 2016; Hope 2014). The assumption can therefore be made that strategic management teams face challenges that force them to employ defensive strategies such as cost cutting in a quest for survival. Sustained competitiveness remains key to the survival of the mining industry, not least as an important contributor of growth to the South African economy at large (Chamber of Mines of South Africa, 2017). This paper therefore reports on the use of scenario planning as part of *business* level strategy, which relates to the competitiveness of mines across South Africa. As illustrated above, the South African mining milieu has changed significantly since democracy in 1994 and there is therefore a need for more research to inform the body of knowledge on how strategists in this industry compete for survival.

A strategy-as-practice lens is used to simultaneously be close to the mining industry real-world of CAs as strategists and to apply social practice theory. By implication this perspective places more focus on the understanding of agency in strategising, namely *how* strategy in this industry is done on a micro level. This is done by viewing strategy practitioners as part of a network of social interactions within the mining industry context, and no longer only as individual practitioners removed from their organisational environments (Bourdieu & Wacquant, 1992).

Literature on strategising and the use of strategy tools explain that strategists perform a thorough and extensive analysis of internal strengths and weaknesses, external competitive forces, internal and external environments and potential scenarios of events and actions to take (Ansoff, 1965; Jarzabkowski & Kaplan, 2015; Porter, 1980). As such, the unique characteristics, challenges and opportunities of the South African mining industry affects how strategists act and interact as strategy practitioners. In other words, *how* CAs use scenario planning as part of strategising is once again a social practice within a specific context. As could be expected, CAs' specific background in accounting will also influence how they select and apply scenario planning.

To summarise, the unique context of the South African mining industry influences how CAs go about when they engage with strategy tools during their strategising practices. Moreover, with CAs' inclination towards accounting and finance with an ability to understand the financial implications of their strategic decisions, these characteristics as CAs might also influence the way in which they apply strategy tools.

RESEARCH METHOD

The aim of the study was to describe *how* CAs used scenario planning as strategy tool during their strategising practices. Therefore a qualitative research design, as opposed to a quantitative design that could determine *which* tools were used, was selected as the most suited research design. A qualitative research design was also regarded as ideally suited for the interdisciplinary research between strategic management, accounting sciences and social practice theory. Whilst accounting sciences research traditionally mainly follows a quantitative research approach, most of the research conducted in the strategy-as-practice domain followed a qualitative research design (Maroun, 2012; Whittington, 2016). By taking a methodological turn away from statistical, quantitative studies in accounting sciences, this research appreciates the social nature of the strategising practices of CAs in the South African mining industry.

By being close to the world of CA strategy practitioners and simultaneously committing to social practice theory, an understanding could be developed of how participants conduct their strategising activities on a micro level within a social context (Whittington, 2016).

The researcher conducted the research from a constructivist paradigm and assumed that the CA strategy practitioners are social actors that produce their social reality through social interaction (their practices and praxis) within the social construct of the South African mining industry (Eriksson & Kovalainen, 2008:13-14). From a constructivist paradigm, a relativist approach was followed from the ontological assumption that reality is subjectively experienced. The assumption is also made that the view and experience of each CA strategist participant in the study may differ and will probably change over time and within in different contexts (Creswell, 2015). Epistemology refers to what constitutes scientific practice and process and intuitively characterises what kind of scientific knowledge is possible and sets limits for that knowledge (Eriksson & Kovalainen, 2008). In the current study, scientific practice was the strategising practices and praxis of CA strategy practitioners as they engage with scenario planning as strategy tool.

As the researcher wanted to understand how CAs perform their strategising practices and praxis and how they combine on a day-to-day level within the social construct of the South African mining industry context, data was collected from participants where they preforms their strategising. Settings where the strategising practices of CAs in the mining industry in South Africa most likely occur were identified and as a result the setting for the study was mines and mining head offices in provinces across South Africa (Chamber of Mines of South Africa, 2017).

Non-probability sampling was used to select participants, based on the purpose of the study and the researcher's knowledge of the unit of analysis as described above. The following inclusion and exclusion criterial for participation in the study were set and applied individually to each potential participant:

1. Participants had to be SAICA registered CAs;
2. Participants had to be responsible for strategising (planning and implementation) at business level in the South African mining industry, regardless of the positions they hold in their mining organisations.

3. Participants had to have a minimum of two years' strategising experience in general and with at least one year experience in the current strategy position in the mining organisation.

Purposive and snowball sampling were the two sampling techniques employed to obtain an appropriate number of participants to interview. Non-probability sampling in this study meant that that the number of participants selected was not statistically determined and that sampling was based on saturation. The number of participants selected depended on what the researcher wants to know, the purpose of the interviews, what was regarded as useful and credible, and the available time and resources. The participants selected for the qualitative study did not represent a sample of a target population, but rather "unique participants of a particular social construct and of the experiences arising in it" (Crouch & McKenzie, 2006:493). The important norm that determined the number of participants selected was the principle of saturation (Crouch & McKenzie, 2006; De Vos et al., 2011; Lê & Jarzabkowski, 2014; Marshall, 1996; Mason, 2010; Fuchs, 2015). Replications in responses by participants provided confidence in the findings, and the number of participants were sufficient when the responses remained the same (when saturation was reached).

Empirical data that describes how participants used and adapted scenario planning in their everyday strategising practices were developed through semi-structured individual interviews. The researcher herself conducted the interviews and is therefore regarded as the predominant research instrument that produced data through personal interchanges during the interviews. Interviews lasted between 30 and 45 minutes each and were based on a set of pre-determined interview questions. These open-ended interview questions were set according to an interview plan that guided the interviewer and aimed to "engage the participant and designate the narrative area" (Monette, Sullivan & DeJong, 2005:178). The following extract offers some of the questions that were presented to participants in the study:

1. Are you familiar with scenario planning as one of the most popular strategy tools?
2. Do you use scenario planning during your strategising process in the organisation?
3. Please describe in detail how you use scenario planning in your strategising process in your organisation? Refer to a recent project of episode of scenario planning.
4. To which extent do you use traditional accounting tools (for example budgeting or ratio analysis) as part of your strategising process?

Participating CA strategists were given the opportunity to elaborate on their answers and encouraged to express themselves freely. To answer questions three and four above, respondents were required to recall recent and past strategising processes and in particular to focus on their use of scenario planning. The researcher asked probing questions in order to generate in-depth, reflective explanations of why specific aspects of their strategising practices were important (Grebe et al., 2016). Interviews were recorded by way of digital voice recording after informed consent was obtained from the participants and the researcher also kept a field journal to record personal observations and experiences throughout the research process.

Data analysis was seen as an ongoing process of non-numerical analysis to interpret semi-structured interview data in an inductive manner in order to create findings. Conversation analysis was used over first and second cycle coding cycles as a technique to systematically analyse the complex phenomena hidden in the unstructured qualitative data. The data was firstly divided into seven sub-categories as part of a first coding-cycle described as data theming. The purpose of the first coding-cycle was to categorise basic themes identified during pre-coding based on the commonality of data sections. Thereafter, second cycle-coding was performed to further arrange the first cycle-codes into a concise list of similar themes that relate to how CA strategists use and adapt scenario planning as strategy tool during strategising. The two coding cycles were done by using ATLAS.ti software as an overall qualitative research coding and data management programme. Once the coding cycles were completed, an inductive process of reasoning to draw conclusions about the data created from the interviews. An independent consultant who had no knowledge of the field of strategy-as-practice or CAs was also employed as a co-coder in order to increase the credibility of the coding done on the transcribed interviews.

RESULTS AND DISCUSSION

CA strategists in the study were well familiar with scenario planning and used it widely as part of their strategising practices. Scenario planning was described as a strategy tool that plays an important role in the South African mining industry; one that was perceived by participants as volatile and fast changing. Participants called for more use and integration of scenario planning in the strategic management process with emphasis on preparation for *multiple* possible adverse future events.

The most significant finding on the use of scenario planning by CA strategists in the South African mining industry is how these participants with their unique background in accounting, combined their accounting and strategy knowledge to transformation as innovative, competitive strategists in their organisations. Participants described how they used scenario planning as a bargaining tool during their budgeting process with corporate head office to gain an advantage over internal competitors for limited capital funding, during times of austerity measures in the industry. This was done by using scenario planning to present possible future outcomes based on different amounts of funding received from corporate head office, for annual as well as long term budgets. A participant explained:

> *Scenario planning is used in our projects department when we do our budgets. We do an ideal scenario to fulfil our proposed strategy. Then we say, to achieve that strategy we need x billion rand in terms of the capital projection. We know for sure that that would only be possible in an ideal world, that we won't get that amount of money from corporate head office and that we will have to adjust our own capital funding projections to support the balance. However, we then do a high, low and medium impact scenario plan to say: if we receive ninety per cent of our requested capital budget and we must cut ten per cent on our projects, what will the impact be on the strategy? Then we do a medium level scenario to say: if we receive seventy five per cent of the money and we cannot fund the remaining twenty five per cent from our own funds, what will the impact be on the strategy, on production, on mining safety, etc. We continue to create a third scenario and say: if we receive fifty per cent of the requested budget, again what will the impact be on the strategy, production, mining safety, the impact on the environment and all those type of things? So, those scenarios are to illustrate to corporate head office what the effect of their budget decision making will be based on different amounts of capital funding from head office.*

By creating the different scenarios and impact that it would have on the organisation, corporate head office has a better overall view of the budget process. Head office becomes acutely aware of the impact of their funding decision and this creates what the participants termed as 'bargaining power' when negotiating with head office for funding. The participants continued:

> *You must do thorough research on your strategy. We do it proactively. We don't wait for corporate head office to tell us "you only have a billion rand, go and do your calculations". We tell corporate head office "if you have this strategy, this is the impact it is going to have on us". So, we communicate our strategy and possible future scenarios proactively.*

Apart from scenario planning serving as "sort of a bargaining tool" with corporate head office during the budgeting process, it also creates an advantage over competitors within the group for limited capital budget in the group.

> *Because other companies in the group do not follow the same proactive and scenario driven approach in the information that they give through to head office during budgeting, it is easier for head office to simply say "no, you only have this amount of money". But we in turn can immediately start with the arm wrestling, because we have all the information. Therefore, we are always at the forefront of negotiations - it is easier for us when it comes to obtaining funding from corporate head office during the budget process.*

From the above descriptions it is clear that these participants succeeded in combining their accounting and strategy knowledge to gain a competitive edge in the mining industry – scenario planning during the budgeting process enabled these CA strategists to better negotiate with corporate head office and compete with fellow subsidiaries for limited funding from head office.

Other characteristics of CA strategists' use of scenario planning during their strategising practices include that scenario planning was mainly done from a financial perspective with financial drivers as the main indicators used in their scenario plans. These were described as "enormously" important in their "financial type of scenario planning". Examples of these indicators that were included in scenario plans and described as often "highly volatile", are the international oil price, commodity prices for export, foreign exchange rates and interest rates for funding. Although to a much lesser extent, non-financial factors such as technology, equipment, logistics and human resources were also included in scenario plans. Scenarios were created for different periods, varying from annually, two to ten years, fifteen years and the expected life of the mine.

An indication of the participants' development in their knowledge and use of scenario planning is statements like "we went from having one single figure in a budget to a range of figures with confidence levels assigned to each figure in various forecasted scenarios", in a "portfolio of about four hundred to five hundred projects". These scenarios form part of the planning phase of projects with durations of "anything between two to ten years" and that span across different functional business levels in the organisation.

Scenario plans were created for decisions to be made that ranges from determining where to focus limited financial resources such as borrowed funding to the allocation of operational resources such as human resources and mining equipment, to mining operations. Industry related risks such as labour unrest and a declining international commodities market were also taken into consideration when strategic decisions were made. As a result not only the most profitable scenarios but the most profitable scenarios within the corporate level risk appetite were selected. Scenario plans were extensively discussed at various meetings that involved many role players, such as production, logistical and sales managers:

> *When we go through the first round of budgeting, we debate the scenario plans - the accounting guys, mining people, plant guys, guys from whichever operation you are dealing with at that moment.*

The budget that contains different scenarios is first reported to the organisation's management and then later to corporate level management, once agreement on each level has been reached:

> *Our management team discuss what is possible and what is not possible. They meet, they come back again, they communicate with corporate head office: what did we promise the market and what is possible? Until it comes to a final number, maybe even after ten rounds of scenario planning as part of budgeting.*

Apart from extensive scenario planning through the formalised strategic planning phase, scenario planning was again adapted and used to evaluate projects after strategy implementation later on in the strategic management process. For example, scenario planning was done to manage a so-called 'ramp-up project' after implementation, by considering various interrelated and interdependent drivers over five- to seven-year scenarios. These scenarios were created to estimate the directions in and rates at which the project will develop under different circumstances. The identified risks were then mitigated and project plans adjusted. Scenario planning was also used to evaluate projects by "building scenarios to test the different projects and to get to the most optimal solution". Again possible adverse future events were created and the resilience of projects were tested against these scenarios. In reaction, worst case scenario backup plans were created for the most probable possible events. Participants concluded that, although various factors such as safety and environmental issues, were considered in scenarios, financial performance drivers such as "economical beneficial" were consistently predominant in their scenario planning practices.

FUTURE RESEARCH

How scenario planning is used and adapted to be a useful bargaining tool is identified as an area of interest for further research. More insight in the ways in which this strategy tool is combined with the budgeting process and utilised from a financial perspective by CA strategists, could be useful knowledge for future use of scenario planning. In addition, such knowledge could contribute to accounting education to be better informed of how CAs really act and interact as professional strategic managers. Better alignment and synergy between strategising and accounting practices could be explored. This paper only reports on the use of scenario planning by participating CA strategists in the South African mining industry, and does not claim to represent the experiences of all CA strategists in the South African mining and other industries. Further research could be conducted to obtain practice relevant descriptions of how other CA strategists across a variety of industries use scenario planning and other strategy tools as part of their everyday strategising.

CONCLUSION

CA strategy practitioners in the study described how they performed scenario planning in their organisations in the South African mining industry. The scenario planning activities as described by these participants agree in broad terms to the main scenario planning procedures in the theory and literature, namely to choose a time frame to explore, create different possible scenarios, create action plans and monitor events as they happen (Rigby, 2015). However, differences also exist, for example, combining scenario planning with budgeting to serve as bargaining tool and to gain a competitive edge, using predominantly financial information in the scenarios and using scenario planning as an evaluation tool for the optimisation of ongoing mining projects. Scenario planning was therefore incorporated in accounting processes, but also used with other strategy tools such as risk and project management.

Given CAs' unique accounting and financial background, it is probably no surprise that they engaged with scenario planning and most probably other strategising practices in general, from a financial perspective. Yet, these rich, detailed descriptions contribute to the body of knowledge in strategic management by employing a social practice theory perspective to how CAs, which constitute a significant number of strategists in South African companies, perform strategising in the mining industry. From an accounting profession and accounting education perspective, the practice relevant insights are significant to understand the development of CAs as strategists - particularly with reference to CAs as "leaders with a particular ability in accounting" (SAICA, 2013). They presented themselves as strategists that adapt to their environment and outperform their competitors through the innovative use of scenario planning.

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MAF012 Does the index matter? A comparison of the capital structures of firms listed on the AltX to those listed on the JSE

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ABSTRACT:
The AltX was established to support growth of small and medium enterprises (SMEs) by enabling access to finance. This study investigates whether there is a significant difference between the capital structures of firms listed on the JSE's main board and those listed on the AltX. The factors influencing the differences are explored in detail. Non-financial firms listed on the JSE and AltX respectively between 2011 and 2015 were chosen for the study. A panel data regression model is used and five measures of leverage were tested. The findings indicate that the exchange on which a company is listed is a determinant of its capital structure, with firms listed on the AltX having significantly higher levels of leverage than those listed on the JSE's main board. AltX firms are found to be more reliant on short term financing than JSE firms, making them more susceptible to liquidity risks. In support of the pecking order theory, AltX firms are found to be more likely to draw on their internal funds as a first source of finance, even though they are less likely than JSE firms to have internal funds available. The availability of tangible assets to offer as collateral appears to be a more significant determinant of leverage to AltX firms indicating higher levels of information asymmetry amongst these firms. The study concludes that despite the establishment of the AltX, SMEs still face considerable constraints on their options for finance.

Keywords: Capital structure, AltX, JSE, SME, information asymmetry

INTRODUCTION

Capital structure refers to the combination of debt and equity used to finance a firm. Capital structure theories are often linked to firm value (Modigliani and Miller, 1958, Modigliani and Miller, 1963, Myers and Majluf, 1984, Jensen, 1986, Miller, 1977) making the topic relevant in the context of economic growth. In the developing South African economy, Small and Medium Enterprises (SMEs) are firms which are essential contributors to employment, gross domestic product[77] and provide competition to larger firms (Olawale and Garwe, 2010). The role of finance is a critical element for the development of SMEs as a large portion of the SME sector does not have access to adequate and appropriate forms of credit and equity (Cook and Nixson, 2000). An analysis of the capital structure of Small and Medium Enterprises (SMEs) may provide valuable guidance on how to encourage their growth.

The success of SMEs is one of the main areas of concern of many policy makers as they attempt to accelerate the growth of developing economies (Abor and Quartey, 2010). SMEs are easier to establish than their larger counterparts and are usually more adaptable to changing market conditions. They therefore generate returns more rapidly. These firms are less likely to use advanced technology and are more likely to rely on labour, contributing to the creation of employment in the economy. Moreover, they contribute to a more even distribution of economic activity as they are more likely to succeed in smaller, underserviced urban centres (Abor and Quartey, 2010).

In South Africa research has mainly focused on large listed companies trading on the main board of the Johannesburg Stock Exchange (JSE) (Lemma and Negash, 2011, Letsoenya and Negash, 2013, Correia and Cramer, 2008, Gwatidzo and Ojah, 2009, Gwatidzo et al., 2016, Moyo et al., 2013). A study of the capital structure of smaller firms may therefore be a relevant yet largely unexplored area of research in South Africa. Correia and Cramer (2008) found that large listed companies in South Africa have low levels of debt in relation to what is predicted by trade-off theory. This is despite the country's relatively sophisticated financial markets (de Wet and Gossel, 2016, Gwatidzo and Ojah, 2009). Possible reasons for these low debt levels may relate to high profitability levels in the domestic economy but limited growth prospects for expansion as well as a reluctance or inability to expand into international markets (Correia and Cramer, 2008). These findings strengthen the case for a similar study into SMEs in South Africa.

Despite the crucial role of SMEs in the South African economy, their failure rate is estimated at between 70% and 80% (Cant and Ligthelm, 2002). In a study on South African SMEs, Olawale and Garwe (2010) found that the main inhibitors of growth were capital structure-related as access to finance and insufficient owner's equity contribution were among the top three obstacles cited by respondents. Insufficient access to dynamic capital markets for SMEs in South Africa is one of the main reasons for business discontinuance (Falkena et al., 2007, Abor and Quartey, 2010, SEDA, 2016).

A key objective of the AltX is to be a growth catalyst to South African SMEs by enabling access to finance (JSE, 2013). Stock exchanges play a key role in enabling access to finance. Besides allowing companies to enjoy easy access to capital through equity issues,

[77] Estimations indicate a probable contribution to GDP of more than 50% and a contribution to employment of more than 60% (Falkena et al, 2007, Abor and Quartey, 2010).

they encourage specialisation as well as acquisition and dissemination of information. Furthermore, well developed stock exchanges may mitigate the principal-agent problem through aligning the interests of managers and owners so that managers strive to maximise firm value. Easy access to capital markets improves the allocation of capital which is an important channel of economic growth (Arestis et al., 2001, Yartey and Adjasi, 2007). In an African context, Yartey and Adjasi (2007) cite the development of stock exchanges as central to the domestic financial liberalisation process.

The purpose of this study is to determine whether there is a significant difference between the capital structures of firms listed on the AltX and those listed on the JSE's main board and if there is a difference, what are the factors driving the difference.

LITERATURE REVIEW

Financial theories such as trade off, pecking order, agency, information asymmetries and taxation are equally relevant to the financing behaviour of small and large firms (Ang, 1992). The influential work on capital structure and firm value by Modigliani and Miller (1958) forms the basis of the capital structure theoretical framework. They asserted that capital structure is irrelevant to firm value in a perfect market with no taxes or bankruptcy costs. The underlying premise of the Modigliani and Miller (1958) proposition is that in perfect securities markets, the capital structure decisions by firms belonging to the same risk class do not alter the opportunity set available to investors. Hence any discrepancies in total market values of identical firms in the same risk class arising from differences in financing mix will be removed through arbitrage operations by investors. Once the perfect market assumptions[78] are relaxed, the effect of capital structure on firm value becomes apparent.

Several capital structure theories have since provided insights into the factors affecting firms' financing decisions. The trade-off theory (Kraus and Litzenberger, 1973) views the firm as having an optimal capital structure which involves the trade-off between the benefits of debt and its costs to arrive at a value-maximising capital structure. The free cash flow theory from Jensen (1986) suggests that the use of debt imposes discipline on management to invest in positive net present value projects only. Pecking order theory suggests that firms go through a specific hierarchy of financing options with the intention of exhausting internal sources of funding before raising capital from external sources (Myers and Majluf, 1984). Inherent in the pecking order theory is the assumption of information asymmetries between the firm's managers and its providers of capital. The theory recognises the existence of transaction costs which compel firms to follow a pecking order. Research on firms listed on the JSE has indicated support for the pecking order theory (Gwatidzo and Ojah, 2009, Lemma and Negash, 2011, Ramjee and Gwatidzo, 2012). Correia and Cramer (2008) found that while a relatively large proportion of main board listed firms use a strict debt equity ratio, these ratios were lower than what is predicted by trade off theory.

[78] All information is available to all participants in the market and there are no taxes or transaction costs (Correia, 2015)

The AltX

A possible solution to the apparent lack of access to finance that SMEs face is the establishment of an exchange exclusively for these firms. The AltX was established to provide SMEs with access to long term equity finance which was previously reserved for firms listed on the main board (JSE, 2013). The listing requirements of the AltX are therefore not as onerous as those for the JSE. Van Heerden (2015) suggests that the AltX has been successful in its goal of offering an opportunity for SMEs to raise capital and be a springboard to the main board of the JSE. This conclusion is largely predicated on the findings that the JSE experienced more de-listings than the AltX and the latter experienced more listings than de-listings for the period under analysis.

Research on AltX equivalents in various countries highlights the challenges faced in promoting growth of SMEs. London's privately regulated Alternative Investment Market (AIM) has been effective in providing finance to small, high-growth companies (Mendoza, 2008) although these firms still experience a high failure rate and are unlikely to move to larger exchanges (Gerakos et al., 2013). In 2005, 40 companies moved directly from the London Stock Exchange to the AIM while only 2 companies moved from AIM to the main board.

From an emerging market perspective, the Over the Counter Exchange of India (OTCEI) failed in its objective to provide access to finance to SMEs in India (Banerjee, 2006). Among the reasons for the OTCEI's failure according to Banerjee (2006) were onerous listing requirements and high levels of information asymmetry. The findings of the Commission of Enquiry on Small Firms, as cited by Holmes and Kent (1991) indicated that small firms suffered from a "finance gap" – the result of limited access to capital markets. Smaller firms therefore had to resort to more expensive financing which hindered their development.

The establishment of the AltX may have alleviated some of these pressures for SMEs in South Africa by allowing access to the same capital markets as firms listed on the main board. In order to determine whether AltX companies have the same level of access to capital markets as firms listed on the main board, this study tests whether there is a significant difference in the capital structure of firms on the AltX and JSE. Thereafter, further analysis has been done to determine the extent to which each of the factors identified influence the capital structure of companies on the JSE and the AltX respectively.

The rest of this section presents a discussion of the attributes that various theories of capital structure suggest may affect the firm's debt-equity decision. It explains the theoretical and empirical reasons for including the chosen explanatory variables in the study. The results of empirical analysis appear to have yielded evidence of both positive and negative relationships between the chosen explanatory and control variables and the extent of leverage. This study will present perspectives from prior studies where differing findings were reached.

Term structure of debt

Prior literature indicates that the term structure of debt seems to vary between larger and smaller firms. The results of the analysis presented by Bevan and Danbolt (2002) differed significantly depending on whether short or long term debt was used as a measure of leverage. The study showed size to be significantly negatively correlated with short term debt. Similarly, Holmes and Kent (1991) found that smaller firms hold significantly more short term debt than their larger counterparts. The distinction between short and long term debt may therefore be particularly important for SMEs. In the context of a developing economy, small firms in India were found to rely on more short term debt, possibly as a result of high transaction costs (Bhaduri, 2002) or the fact that short term debt is unlikely to require collateral (Gwatidzo and Ojah, 2009). Research on African firms provides evidence that where these firms need debt to finance their production activities, they choose mostly short-term debt (Gwatidzo and Ojah, 2009).

Titman and Wessels (1988) found short term debt ratios to be negatively correlated to firm size – a possible result of relatively high transaction costs of long term debt for small firms. They posit that small firms pay more than large firms to issue long term debt and therefore prefer to borrow short term because of the lower fixed costs associated with this type of debt. This apparent difficulty experienced by small firms in raising long term debt may be predicated on theories of information asymmetry.

Asymmetric information between owners and outsider capital suppliers could cause a large gap in the cost of funds perceived by the owners and by suppliers of capital. As the providers of short term capital interact with the firm more frequently, they may have a more intimate knowledge of the firm than the providers of long term debt (Ang, 1992, Damodaran, 2010). If debt is required, SMEs will choose short term debt as it is unlikely to have covenants which impose limitations on managers' control – evidence of the pecking order theory. This study therefore tests whether firm size is correlated to debt term.

Taxes

In the presence of corporate taxes, capital structure irrelevance theory from Modigliani and Miller (1958) no longer holds and taxes do affect financing decisions. Interest, which is the cost of debt, is deductible for tax purposes in South Africa (Correia, 2015). It is therefore viewed as a tax shield as firms pay lower taxes. By virtue of the tax deductibility of interest, debt is viewed as a cheaper form of capital which increases the value of the firm. Unlike interest payments, the payment of dividends to equity holders is not tax deductible. Graham (2000) makes reference to the unsolved "riddle" of why many firms appear conservative in their use of debt despite the sizable benefit available from the tax deductibility of interest. According to Lee and Barker (1977), the optimal leverage is at the point where the present value of the tax shield is equal to the present value of the cost of financial distress. Negash (2001) found that while the potential tax benefit from leverage should theoretically be larger in firms, they are not taking full advantage of the potential tax benefit. This may be because other non-debt tax shields reduced the attractiveness of the interest deductions.

There are varied findings on the effect of tax on leverage in South African firms. Moyo et al. (2013) found that profitable firms face increased tax payable, and they reduce this through the use of debt interest tax shields. The analysis performed by Negash (2002) yielded a negative association between tax rate variables and the extent of leverage while that of Gwatidzo and Ojah (2009) found that the tax variable was insignificant. It is therefore uncertain whether tax rates will be positively or negatively correlated with leverage. This study will test whether firms that pay high taxes in relation to their income are more likely to use debt as a tax shield.

Costs of financial distress

The existence of bankruptcy costs associated with debt leads to the theory of trade-off between tax and bankruptcy costs (Modigliani and Miller, 1963, Kraus and Litzenberger, 1973). There are benefits and costs associated with debt. The benefits stem from the interest being tax deductible while higher debt levels increase the probability of bankruptcy and financial distress. This is why, in reality, there is a moderate, cautious approach to borrowing as opposed to a capital structure comprised entirely of debt (Gwatidzo and Ojah, 2009). The firm is therefore seen as balancing the tax advantages of debt financing with the implicit and explicit costs of financial distress to arrive at an optimal capital structure which maximises the value of the firm. This theory is particularly relevant for SMEs as they have a greater chance of landing in financial distress than their larger counterparts (Ang, 1992, Bhaduri, 2002).

The economies of scale related to bankruptcy costs are highlighted in a study on developing economies by Prasad et al. (2001). In the study, larger firms are shown to face lower unit costs of bankruptcy than do smaller firms. Similarly, the findings in Ang et al. (1982) suggest that bankruptcy costs constitute a larger proportion of a firm's value as its size decreases. Research on banks' lending practices indicate that smaller firms attract higher costs of capital (Pettit and Singer, 1985, Graham, 2000). Vassalou and Xing (2004) found default risk to be "intimately" related to size. After classifying firms by their default risk, they noted that within the high-default risk category, small firms have much higher default risk than big firms and default risk always increases as size decreases.

Under the assumption that liquidation is costly, smaller firms should be more averse to debt. Rajan and Zingales (1995) postulate that larger firms tend to be more diversified and fail less often. Similarly, Prasad et al. (2001) suggest that higher leverage in firms which manufacture products across a number of industries are diversified and less prone to collapse. In a study which included South African firms, Gwatidzo and Ojah (2009) found that the relationship between size and leverage was positive and significant. Moyo et al. (2013) found a significant negative correlation between financial distress and the firms' leverage in the manufacturing, mining and retail industries in South Africa.

Profitability

According to the Pecking Order Theory (Myers and Majluf, 1984) firms prefer internal to external sources of financing. The theory suggests that firms go through a specific hierarchy of financing options when it comes to raising capital – their first choice is retained earnings, second from debt and, as a last resort, from the issue of new equity. Firms therefore prefer internal sources of funding before exhausting their debt capacity. A possible explanation could be that firms draw on internal sources of finance that will not dilute their control; either as a result of restrictive debt covenants or new shareholders. Therefore firms with high levels of cash resources will forgo additional debt. Accordingly, Myers and Majluf (1984) predict a negative relationship between profitability and debt as highly profitable companies will tend to finance investment with internal funds rather than debt.

Several studies agree that leverage decreases with profitability (Bevan and Danbolt, 2002, Booth et al., 2001, Lemma and Negash, 2011, Rajan and Zingales, 1995). Furthermore, the negative influence of profitability on leverage became stronger as firm size increases (Rajan and Zingales, 1995). Holmes and Kent (1991) suggest that small firms have a preference for those finance options which minimise intrusion into their businesses. Titman and Wessels (1988) assert that the past profitability of the firm and hence its retained earnings, should be an important determinant of its capital structure. Studies on developing economies show that the more profitable the firm, the lower the debt ratio (Prasad et al., 2001, Booth et al., 2001). These findings are supported by studies on South African firms (Lemma and Negash, 2011, Gwatidzo and Ojah, 2009). This study therefore tests whether firm profitability is correlated to leverage.

Asset tangibility

Theories on information asymmetry suggest that firms may prefer to raise secured debt (Myers and Majluf, 1984). There may be costs associated with obtaining debt as a result of asymmetric information between the firms' managers and the providers of debt. Akerlof (1970) explains that the availability of credible information is critical to the functioning of vital markets in an economy. Firms which cannot credibly signal their quality to providers of finance can incur an increased premium as a result of lack of information. The practice of offering property with known values as collateral may reduce these costs. Therefore firms with assets that can be used as collateral may take advantage of their increased opportunities to access debt. Gwatidzo and Ojah (2009) note that the prevalence of information asymmetry is high in the African environment.

From the perspective of the providers of debt finance, Long and Malitz (1985) found that lenders are likely to prefer tangible assets with an active second hand market as collateral as they will be easier to liquidate. Bevan and Danbolt (2002) found that leverage is significantly positively correlated with tangibility. Research on South African firms has shown that firms with tangible assets find it easier to access debt finance (Gwatidzo and Ojah, 2009, Lemma and Negash, 2011). In contrast, Moyo et al. (2013) find asset tangibility to be negatively related to leverage when considering South African firms in the manufacturing, mining and retail industries only.

This study therefore tests whether firm leverage is positively related to asset tangibility.

RESEARCH METHODOLOGY

The purpose of this study is to test whether there is a significant difference in the capital structures of firms listed on the AltX to those listed on the JSEs main board. A regression model detailed in the Data Analysis section is used to achieve this purpose. If a significant difference is found, further analysis will be performed to determine the factors which drive this difference.

This study is based on panel data of the five year period from 2011 to 2015 and follows a quantitative method of research. The intention of quantitative research is to establish, confirm, or validate relationships (Leedy and Ormrod, 2012). The sample for this study comprises all companies that were listed on the AltX and the JSE at any point during the period under analysis. Therefore, firms which may have subsequently delisted from either exchange are included in the analysis. In doing so, survivorship bias is eliminated. This was the same approach followed by Rajan and Zingales (1995) as data was gathered from databases which included companies that had delisted from their respective local market index.

Following precedent (Chipeta et al., 2012, Chipeta et al., 2013, Letsoenya and Negash, 2013, Lemma and Negash, 2011), firms within the financial services sector have been excluded from the analysis because their borrowing capacity and capital adequacy requirements are subject to separate regulation. This regulation therefore impacts their capital structure.

The data for this study was drawn from INET BFA database (formerly known as the McGregor BFA database). The data was managed using Microsoft Excel 2010 and statistical analysis was done in the software package, R.

Data Analysis

Firms were selected from the JSE and AltX if they had financial data available for any period/s under the five years under analysis. Thereafter, all companies in the financial services sector were excluded from the analysis as these firms are subject to special regulations that may influence their capital structure. Before any statistical analysis, 234 firms were identified of which 189 were listed on the JSE and 45 were on the AltX.

Table 1: Distribution of sampled firms by sector classification (JSE and AltX listed firms)

	Number of firms		Percentage	
Sector	**JSE**	**AltX**	**JSE**	**AltX**
Basic Materials	47	8	24.87	17.78
Consumer goods	17	4	8.99	8.89
Consumer services	39	3	20.63	6.67
Healthcare	6	2	3.17	4.44
Industrials	63	18	33.33	40.00
Oil and Gas	3	0	1.59	0
Utilities	0	1	0.00	2.22
Technology	9	8	4.76	17.78
Telecommunications	5	1	2.65	2.22
TOTAL	**189**	**45**	**100.00**	**100.00**

Source: INET database and author's computations

The following are the models that have been used in the study.

Equation 1:

$$\text{LEVERAGE(k)}_{it} = \alpha + \beta_1*(\ln(\text{SIZE}))_{it} + \beta_2*(\text{CD\_TAX})_{it} + \beta_3*(\text{ASSETSTRUCT})_{it} + \beta_4*(\text{PROFIT})_{it} + \beta_5*(\text{CD\_Listing})_{it} + \beta_6*(\text{Sector dummy variables9})_{it} + \varepsilon_{it}$$

where:

- i denotes the cross-sections and t denotes the time period with i = 1...234 and t = 1...5. The yearly observations are from 2011 to 2015.
- LEVERAGE (k) represents different leverage measures (Total Liabilities/Net Assets, Total Liabilities/Total Assets, Total Liabilities/Capital, Current liabilities/Total Assets, Non-Current liabilities/Total Liabilities) with k = 1, 2, 3, 4 and 5. The model was run five times (once for each measure of leverage).
- CD_Listing is a coded variable indicating whether the firm is listed on the AltX (-1) or the JSE (1).
- εit is the normal error term.
- Sector dummy variables range from 1 to 9 representing the industry classification.
- α is the constant

The first equation will test whether there is a significant difference in the capital structure of AltX listed firms and JSE listed firms. It aims to isolate the effect that the index has on the capital structure of a firm. Therefore, the following are the control variables:

- Size (SIZE)
- Taxes (CD_TAX)
- Asset Structure (ASSETSTRUCT)
- Profitability (PROFIT)

Equation 2:

The second equation will test whether the factors affecting capital structure differ between AltX and JSE listed firms. Therefore, the regression analysis will be performed with AltX firms only and then with JSE firms only.

$\text{LEVERAGE}(k)_{it} = \alpha + \beta_1{*}(\ln(\text{SIZE}))_{it} + \beta_2{*}(\text{CD\_TAX})_{it} + \beta_3{*}(\text{ASSETSTRUCT})_{it} + \beta_4{*}(\text{PROFIT})_{it} + \beta_5{*}(\text{Sector dummy variables9})_{it} + \varepsilon_{it}$

where:

- i denotes the cross-sections and t denotes the time period with i = 1...189 for the JSE's main board, I =1…45 for the AltX and t = 1...5. The yearly observations are from 2011 to 2015.
- LEVERAGE (k) represents different leverage measures (Total Liabilities/Net Assets, Total Liabilities/Total Assets, Total Liabilities/Equity, Current liabilities/Total Assets, Non-Current liabilities/Total Liabilities) with k = 1, 2, 3, 4 and 5.
- εit is the normal error term.
- Sector dummy variables range from 1 to 9 representing the industry classification.
- α is the constant

Table 2 presents a summary of the measurement proxies used for the independent or control variables in this study.

Table 2: Measurement of Variables

Variable	Measurement	Precedent
Leverage	Total Liabilities/Net Assets (Lev_1), Total Liabilities/Total Assets (Lev_2), Total Liabilities/Equity (Lev_3), Current liabilities/Total Assets (Lev_4), Non-Current liabilities/Total Liabilities (Lev_5)	Letsoenya and Negash (2013), Rajan and Zingales (1995), Lemma and Negash (2011)
Size (SIZE)	Natural logarithm of total turnover	Rajan and Zingales (1995), Bevan and Danbolt (2002),Titman and Wessels (1988) Lemma and Negash (2011)
Tax (TAX)	Tax paid (per the cash flow statement) / Profit before interest and tax	Lemma and Negash (2011)
Asset structure (ASSETSTRUCT)	Tangible assets / total assets (where tangible plus intangible assets equal total assets)	Sogorb-Mira (2005), Bevan and Danbolt (2002), Lemma and Negash (2011)
Profitability (PROFIT)	Earnings before interest and taxes / Total assets	Sogorb-Mira (2005), Bevan and Danbolt (2002), Lemma and Negash (2011)

Capital structure theories have different implications depending on how leverage is defined (Lemma and Negash, 2011, Rajan and Zingales, 1995, Harris and Raviv, 1991). In this study, leverage is measured using the four variables employed by Lemma and Negash (2011). The linear regression models in this study were run using each of these four measures of leverage. An additional variable of current liabilities over total assets will be used to test whether debt duration is positively correlated to firm size.

This study analyses the effect of taxes on leverage. The ratio of tax paid (per the cash flow statement) to the profit before interest and tax was used to determine whether the firm was paying taxes at high rates relative to its income. Upon analysis, it was found that where the tax paid was negative (implying that the firm received a refund from SARS) and the profit before interest and taxes was negative (implying that the firm made a loss) a misleading positive ratio resulted. It was therefore deemed more suitable to use a coded variable in the models indicating either a relatively high tax rate (coded as “High”) or a relatively low tax rate (coded as “Low”). The variable in the regression equations, CD_Tax was assigned the value of -1 for Low and +1 for High tax rates as defined. Further information on how the coding was carried out is contained in the table below.

Table 3: Coding of tax variable

Tax paid (where a positive value means tax paid)	Profit before interest and taxes	Tax paid to profit before interest and taxes (ratio)	Coded variable
Positive	Positive	Greater than 14%	High
Positive	Positive	Lower than 14%	Low
Negative (refund)	Positive	n/a	Low[79]
Positive	Negative (loss)	n/a	Low[80]
Negative (refund)	Negative (loss)	n/a	Low

Validity and reliability

This study used panel data over a five year period. Panel data has distinct advantages over cross section data. Panel data are better able to identify and measure effects that are not apparent in pure cross sections or pure time series data. They give more informative data, more variability, less collinearity among the variables, more degrees of freedom and more efficiency (Baltagi, 2008). Furthermore, panel data is superior to aggregate time series data as the underlying dynamics of the data are not obscured by aggregation bias (Bond, 2002).

In order to enhance the reliability of this study, the author consulted a statistician who guided the process of statistical analysis and validated the results.

The study follows precedent by using a 5 year period. Sogorb-Mira (2005) and Lemma and Negash (2011) also used a five year period as it reduced the measurement error arising from random year-to-year fluctuations in variables. Additionally, there have been no significant monetary policy changes during the time period that will be covered. This improves the validity of the study.

The classic linear regression model is based on certain assumptions. The model residuals should be normally distributed; there should be homoscedasticity[81]; there should be no autocorrelation between the disturbances and the explanatory variables should not be correlated (Gujarati, 2009). Several model diagnostic tests were run to test whether these assumptions were met. The results of these tests are contained in the Results section of this study.

[79] These firms are not in a tax paying position and therefore unlikely to want to take on debt for its tax shield.
[80] Graham (1998) found that firms that were in distress were unlikely to enjoy the benefits of interest deductions.
[81] There should be equal (homo) spread (variance). The opposite of homoscedasticity is heteroscedasticity.

RESULTS

Diagnostic Tests

The classic linear regression model is based on certain assumptions. Several diagnostic procedures were used to test whether these assumptions were met.

One of the ways in which the assumption of normality is checked is to inspect a normal probability plot (Pallant, 2013). For this study, a normal probability plot (labelled Normal Q-Q Plot) was generated in R for each measure of leverage. These plots showed that the residuals approximated a normal distribution. In order to detect outliers, Cook's distances may be generated (Pallant, 2013). Outliers are observations which have unusually high or low values making them stand out from the other observations (Hair et al., 2010). Following close examination of the plots, outliers were identified for each of the five different measures of leverage. These were removed from the analysis.

Autocorrelation is defined as correlation between members of series of observations ordered in time or space. The Hausman test may be used to detect autocorrelation (Gujarati, 2009). Under this test, the null hypothesis is that there is no autocorrelation. The test was applied to the panel data models in this study. Where a statistically significant value was obtained, the null hypothesis was rejected indicating that autocorrelation was present. In these instances, the fixed effects model was used for statistical inference. Where we failed to reject the null hypothesis, the random effects model was used. Heteroscedasticity may be detected using the Breusch-Pagan[82] test (Gujarati, 2009). Where heteroscedasticity was detected, robust covariance matrix estimation was used. Robust estimators of the covariance matrix allow for heteroscedasticity (Croissant and Millo, 2008).

In order to test whether there was correlation between the explanatory variables, a covariance matrix was generated. It showed no evidence of correlation between explanatory variables as all correlations were below the acceptable threshold of 0.7 (Pallant, 2013). The largest correlation coefficient was 0.48 suggesting minimal correlation between explanatory variables.

Table 4: Covariance matrix

	LNSize	*CD_Tax*	*AssetStruct*	*Profit*	*CD_Listing*	*CD_Sector*
LNSize	1					
CD_Tax	0.3085	1				
AssetStruct	0.2198	0.0442	1			
Profit	0.2137	0.2626	-0.0033	1		
CD_Listing	0.4772	0.3085	0.1861	0.1402	1	
CD_Sector	-0.111	0.1695	-0.0518	0.1205	-0.1522	1

Source: Author's computations

Descriptive Statistics

In analysing the results of this study, reference is first made to the descriptive statistics of the variables. Descriptive statistics were calculated after removing the outliers identified in the

[82] Derived by Breusch and Pagan, this test checks whether there is unequal variance in the error terms (Gujarati, 2009)

process detailed in the results section of this study. Table 4 presents the descriptive statistics for the dependent variables. These statistics provide the initial evidence that the levels of leverage vary widely depending on how leverage is measured (Lemma and Negash, 2011, Gwatidzo and Ojah, 2009, Rajan and Zingales, 1995, Harris and Raviv, 1991, Bevan and Danbolt, 2002). This is apparent for both indices under analysis. Overall, companies on the AltX have higher levels of leverage than those on the main board. This may indicate either that the AltX may not be providing the same level of access to equity finance as the JSE or that equity investors prefer shares listed on the main board.

Levels of leverage are higher for JSE firms when we consider the ratio of non-current liabilities to total liabilities. It appears that firms on the AltX have lower levels of non-current liabilities than firms on the JSE. Further support for this finding is provided by the ratio of current liabilities to total assets which is higher for firms on the AltX. This may provide evidence that firms on the AltX are using relatively more current liabilities for financing.

Table 5: Descriptive Statistics of the Dependent Variable

	Mean		Std. dev	
Dependent Variable	**JSE**	**AltX**	**JSE**	**AltX**
Total Liabilities/ Net Assets	0.683	0.735	0.515	0.747
Total Liabilities/ Total Assets	0.458	0.497	0.191	0.294
Total Liabilities/ Total Equity	1.036	0.815	2.343	4.030
Current Liabilities/ Total Assets	0.297	0.354	0.176	0.232
Non-current Liabilities/ Total Liabilities	0.351	0.267	0.247	0.256

Source: Author's computations

Descriptive statistics of the independent variables are provided in Table 5. Coded variables were used for the measurement of the Tax (CD_Tax), Index listing (CD_Listing), and Sector (CD_Sector). Any inferences drawn from the descriptive statistics for these coded variables would therefore have been meaningless.

Table 6: Descriptive Statistics of the Independent Variables in Equation 2

Equation 2: Independent Variables	Mean		Std. dev		Max	Min	Max	Min
	JSE	AltX	JSE	AltX	JSE	JSE	AltX	AltX
Size (LNSize)	15.236	12.135	2.063	1.449	21.598	1.609	16.349	6.428
Profitability (Profit)	0.070	-0.108	0.369	0.662	0.693	-9.92	0.443	-7.80
Asset Structure (AssetStruct)	0.887	0.803	0.143	0.258	1.000	0.053	1.000	0.008

Source: Author's computations

As anticipated, the average size of companies listed on the main board of the JSE is larger than companies listed on the AltX. This is supported by maximum values on each index with the JSE's main board having the larger maximum size. Notably, the smallest firm listed on the JSE's main board is smaller than the smallest firm listed on the AltX. We may infer that it is possible that certain companies are listed on the AltX despite possibly qualifying for listing on the JSE's main board. A higher standard deviation for the JSE's main board provides evidence of a more diverse range of companies than those listed on the AltX.

Regarding profitability (measured by the ratio of earnings before interest and tax to total assets), the average profitability of companies listed on the AltX is negative indicating that most companies on the AltX are loss-making and considerably less profitable than companies on the JSE's main board. The greater standard deviation recorded for AltX-listed companies provides further evidence of the diversity range of companies on the index.

When considering asset structure (measured by the ratio of tangible assets to total assets), the descriptive statistics show similarity between the indices under analysis. Both indices appear to be dominated by firms which have predominantly high levels of tangible assets. However, the minimum values for each index may indicate that more AltX listed firms have lower levels of tangible assets compared to firms listed on the JSE's main board.

Regression results

For the panel data analysis in this study, the fixed effects model and the random effects model were estimated. In order to assess the suitability of each of the models, the Hausman test was conducted for each measure of leverage for equation 1 and equation 2 respectively. The choice between the random and fixed effects models depends on the assumptions made about the error term. The random effects model assumes that the individual specific error component or individual heterogeneity is random whereas the fixed effects model ignores the unit specific residual (Gwatidzo and Ojah, 2009). The Hausman test indicated that the fixed effects model was preferred in some instances while the random effects model was preferred in others. Similarly, the Breusch-Pagan test was conducted on both equations 1 and 2. Where this test detected heteroscedasticity, a robust covariance matrix was used to account for it (Croissant and Millo, 2008). The results from the regression equations are presented and discussed below.

Table 7: Regression Results: Equation 1

Leverage	Total Liabilities/ Net Assets	Total Liabilities/ Total Assets	Total Debt/ Total Equity	Current Liabilities/ Total Assets	Non-current Liabilities/ Total debt
Intercept	-0.6681	0.3193	-2.3415	0.3088	-0.0615
	(0.6086)	(0.1244)	(3.4828)	(0.1489)	(0.1490)
LNSize	0.0620	0.0258	0.5900	0.0116	0.0356
	(0.0354)^	(0.0072)***	(0.2099)**	(0.0029)***	(0.0096)***
CD_Tax	0.0186	-0.0142	0.0386	-0.0051	0.0028
	(0.0811)	(0.0079)^	(0.1775)	(0.0055)	(0.0101)
AssetStruct	0.7243	0.1079	1.2181	0.1391	0.2512
	(0.4554)	(0.0734)	(1.5957)	(0.0429)**	(0.1095)*
Profit	-0.1821	-0.0993	0.8045	-0.0717	0.0292
	(0.3586)	(0.1289)	(1.0406)	(0.0235)**	(0.0926)
CD_Sector	0.0096	-0.0451	-0.5908	-0.0267	0.0000
	(0.0305)	(0.0212)*	(0.6227)	(0.0117)*	(0.0279)
CD_Listing	-0.1915	-0.1576	-2.5055	-0.2492	0.1338
	(0.1137)^	(0.0546)**	(1.6951)	(0.0791)**	(0.0723)^
Probability (F-stat)	0.2005	0.0000	0.0000	0.0000	0.0000

*Notes: Robust standard error values are given in parentheses. ^Indicates significance at 10%; *indicates significance at 5%; **indicates significance at 1%; and ***indicates significance at 0.1%.*

4.3.1. Listing

The results show that even when controlling for the other possible determinants of capital structure, firms listed on the AltX have higher levels of debt than firms listed on the JSE's main board. This substantiates the findings in the Descriptive Statistics section of this study. Index listing is found to be significant at the 1% level when measuring leverage as either total liabilities scaled by total assets or current liabilities scaled by total assets. Considering the coding of the index variable[83], the negative coefficient indicates that companies on the AltX have higher levels of leverage than those listed on the JSE's main board when controlling for other possible influences on capital structure. The higher levels of leverage for AltX firms may be as a result of them not enjoying access to the same capital markets as those listed on the JSE. According to Olawale and Garwe (2010) one of the main obstacles inhibiting SME growth is poor credit rating. The poor credit ratings may be as a result of accumulating debt balances as a result of an impaired ability to repay debts in AltX companies. This would substantiate the findings of higher levels of leverage as well as a negative mean profitability detected in AltX firms.

Firms with higher leverage ratios are more likely to default on their debt (Correia, 2015). If these findings do indeed point to most AltX firms being in financial distress, they may have to rely more on equity financing so as to reduce the agency costs of debt. However, financially distressed firms may incur high costs of equity. This situation will result in firms facing considerable difficulty is raising both equity and debt finance (Moyo et al., 2013).

Considering theories of information asymmetry, Bhaduri (2002) postulates that high transaction costs as a result of asymmetric information may explain lower levels of leverage

[83] "CD_Listing" is a coded variable indicating either listing on the JSE (1) or the AltX (-1).

in SME's. This suggestion appears to stand in contrast with the results obtained in this study. Olawale and Garwe (2010) explain that in order to access external finance, it is necessary for firms to reduce information asymmetry. Considering that the AltX listing requirements do not provide exception from the main board's requirement to produce and publish financial statements (Van Heerden, 2015), the results of this study may indicate that AltX listed firms have in fact been successful in reducing information asymmetry by publishing financial statements. If we ignore the possibility of financial distress, the findings in this study appear to indicate that AltX firms may have better access to debt as a result of reduced transaction costs attributed to information asymmetry.

The significant result obtained when measuring leverage with reference to current liabilities may indicate that firms listed on the AltX are more likely than firms listed on the JSE to use more short term debt as a financing option. This finding is consistent with prior literature which found that smaller firms rely more on short-term debt (Titman and Wessels, 1988, Bevan and Danbolt, 2002, Bhaduri, 2002, Gwatidzo and Ojah, 2009) and validates the postulation by Cook and Nixson (2000) that SMEs do not have access to *appropriate* forms of credit (emphasis added).

Having established that there is a difference in capital structure between the JSE and AltX indices, the rest of this section aims to analyse the difference in more detail. To this end, results from equation 2 are presented and discussed.

Table 8: Regression Results: Equation 2 – JSE Listed Firms

Leverage	Total Liabilities/ Net Assets	Total Liabilities/ Total Assets	Total Debt/ Total Equity	Current Liabilities/ Total Assets	Non-current Liabilities/ Total debt
Intercept	-0.2125	0.1399	-4.8073	-0.1127	0.1256
	(0.1589)	(0.3265)	(3.3520)	(0.0528)*	(0.1842)
LNSize	0.0270	0.0304	0.4464	0.0127	0.0246
	(0.0077)***	(0.0070)***	(0.0830)***	(0.0025)***	(0.0061)***
CD_Tax	-0.0282	-0.0232	-0.0265	0.0041	-0.0137
	(0.1370)*	(0.0083)**	(0.1334)	(0.0053)	(0.0110)
AssetStruct	0.3248	0.0516	0.0733	0.1145	0.1808
	(0.1106)**	(0.0782)	(1.0197)	(0.0397)**	(0.1089)^
Profit	-0.2555	-0.0461	0.5770	-0.2006	0.0893
	(0.0604)***	(0.1239)	(0.5835)	(0.0362)***	(0.0780)
CD_Sector	0.0569	0.0902	-0.2416	0.0326	0.0017
	(0.0138)***	(0.0485)^	(0.7352)	(0.00415)***	(0.0502)
Probability (F-stat)	0.0000	0.0000	0.0000	0.0000	0.0000

*Notes: Robust standard error values are given in parentheses. ^Indicates significance at 10%; *indicates significance at 5%; **indicates significance at 1%; and ***indicates significance at 0.1%.*

Table 9: Regression Results: Equation 2 – AltX Listed Firms

Leverage	**Total Liabilities/ Net Assets**	**Total Liabilities/ Total Assets**	**Total Debt/ Total Equity**	**Current Liabilities/ Total Assets**	**Non-current Liabilities/ Total debt**
Intercept	0.3061	0.1138	-0.1653	-0.0185	0.9881
	(0.6004)	(0.2190)	(3.2952)	(0.2953)	(0.1779)
LNSize	-0.0018	0.0209	0.0310	0.0187	0.0327
	(0.0534)	(0.0192)	(0.2949)	(0.02470)	(0.0156)*
CD_Tax	0.0031	-0.0066	-0.1458	-0.0042	-0.0088
	(0.0595)	(0.0189)	(0.4466)	(0.0181)	(0.0159)
AssetStruct	0.9840	0.3824	-0.8828	0.3794	-0.1125
	(0.3485)**	(0.1225)**	(1.9583)	(0.1484)*	(0.1065)
Profit	-1.1842	-0.3521	0.6575	-0.0251	-0.1252
	(0.2348)***	(0.0743)***	(1.8245)	(0.0702)	(0.0627)*
CD_Sector	-0.0522	-0.0278	0.2590	-0.0293	-0.0449
	(0.0291)^	(0.0108)*	(0.1595)	(0.01636)^	(0.0099)*
Probability (F-stat)	0.0000	0.0000	0.0100	0.0044	0.0000

*Notes: Robust standard error values are given in parentheses. ^Indicates significance at 10%; *indicates significance at 5%; **indicates significance at 1%; and ***indicates significance at 0.1%.*

Size

Consistent with prior literature, in JSE listed firms, size is found to be a significant and positive determinant of leverage (Rajan and Zingales, 1995, Booth et al., 2001, Chipeta et al., 2012, Gwatidzo et al., 2016) irrespective of how leverage is measured. Size was found to be significant for is significant at the 0.1% level for all measures of leverage for JSE listed firms. This result is interpreted to mean that the greater the size[84] the greater the leverage for JSE listed firms. Notably, size is shown to be significant for AltX listed firms only for one measure of leverage. It appears that size has a greater significance for a firm listed on the JSE. This may be due to external providers of finance viewing all AltX listed firms as “small”; a view that may be supported by the lower standard deviation of the size variable for AltX firms compared to JSE firms.

Taxation

Taxation[85] was found to be a significant determinant of capital structure for JSE listed firms for two of the five measures of leverage. For AltX listed firms, taxation was not found to be a significant determinant. This is consistent with the findings of Gwatidzo and Ojah (2009) where the tax variable was insignificant for South African firms. The predominantly negative coefficients for the various measures of leverage across both indices indicate that firms with higher taxation have lower levels of leverage. These negative coefficients may suggest that firms on both the JSE and the AltX are either not taking advantage of the tax benefits of debt or, consistent with Negash (2001), they are making use of non-debt tax shields. DeAngelo

[84] Measured as a natural logarithm of turnover
[85] Coded as -1 for low and 1 for high

and Masulis (1980) suggest that firms can also benefit from non-debt tax shields and that these credits can be substitutes for tax shield provided by debt.

As outlined the findings on the relationship between debt and taxes are varied. The finding in this study are largely consistent with those of Negash (2002) where a negative association between leverage and the tax variable was discovered.

Asset Structure

For firms across both bourses, asset structure is found to be positive and significant for three out of the five measures of leverage. The positive coefficient shows that the higher the tangible assets relative to total asset base, the higher the leverage. This may suggest that firms use their asset bases as collateral for debt, thereby reducing transaction costs associated with information asymmetry. Overall, the quantum of the coefficients for asset structure is much larger for AltX firms. This indicates that having tangible assets is more important for AltX firms as they have a greater need than JSE firms to provide collateral to providers of debt possibly as a result of increased information asymmetry.

Profitability

Consistent with prior literature (Lemma and Negash, 2011, Gwatidzo and Ojah, 2009), profitability is found to be a significant determinant of capital structure for JSE listed firms. Assuming profitability proxies for availability of internal resources, the predominantly negative coefficients suggest that the higher the profitability of the firm, the lower the leverage, supporting theories on pecking order. JSE listed firms appear to be using internal resources for financing, if these are available.

Interestingly, profitability is also found to be a significant determinant of capital structure in AltX firms. In fact, it is the only measure that was found to be significant at the 0.1% level for two measures of leverage for the AltX. It appears to have the strongest explanatory power of the variation in leverage of AltX listed firms. The negative coefficients provide strong support for AltX firms following the pecking order, possibly due to high transaction costs associated with debt or the inability to access it.

Although profitably is significant for both indices, the finding is of particular relevance to AltX firms. The descriptive statistics contained in this study showed a negative mean profitability for AltX firms, suggesting that the majority are not profitable. If AltX firms are likely to draw on their profits[86] as a first source of finance, if profits are unavailable, this may pose a severe constraint to their growth and survival. These inferences validate findings from prior research into South African SMEs in which difficulty in obtaining finance is regarded as a serious problem facing small businesses (Olawale and Garwe, 2010, Cant and Ligthelm, 2002).

Sector

Firm sector is found to be significant for both JSE and AltX firms. Firms appear to be adjusting their capital structure to their industry's benchmark. Lemma and Negash (2011) found leverage to be function of the average median leverage in a given industry. Firms in a

[86] Profitability is assumed to be a reasonable proxy for the availability of internal resources

given industry face a common set of forces which influence their financing decisions in a specific way.

CONCLUSION AND RECOMMENDATION FOR FUTURE RESEARCH

The first objective of this study was to investigate whether a difference in capital structure exists between firms listed on the JSE's main board and those listed on the AltX. The results indicate that, after controlling for other factors that may influence capital structure, a dissimilarity between AltX and JSE firms' capital structures does exist. This may suggest that the AltX may be only partially addressing the challenges that SMEs face when attempting to access finance.

The study then attempted to explain the variations in capital structure in more detail. Largely consistent with prior work, the study found support for the pecking order theory in both JSE and AltX listed firms. Notably, most AltX firms, although not profitable, prefer to exhaust internal sources of finance before using debt. Higher levels of debt in AltX firms may be indicative of financial distress and greater probability of default. Furthermore, AltX firms may experience greater liquidity risk[87] as they appear to rely more on current liabilities than their counterparts on the JSE.

The findings in this study may inform further research into SMEs – both listed and unlisted. In order to further assess the effectiveness of the AltX in providing access to finance to SMEs, a comparison of listed to unlisted SMEs is required. Although financial data on unlisted SMEs may not be readily available, qualitative research methods may be used to complement empirical research. While the findings in this study are a result of a carefully constructed analytical process, the inferences based on the findings are based on the author's interpretations as well as prior literature. Further, valuable insights are possible from conducting interviews with SME owners and managers.

This study's findings on taxation indicate the need for inclusion of non-debt tax shields as a measure of the effect of taxation on capital structure. Another future research direction is to expand the scope of the study to other developing economies with the objective of including country-specific factors which may influence capital structure decisions. This may be particularly useful when assessing the impact of the tax variable as country-specific legislation will, to a large extent, be controlled for by differing tax regimes.

[87] Current liabilities may be used to finance non-current assets, resulting in a timing mismatch between cash inflows and outflows.

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MAF013 **The signalling effect of dividends on future financial performance: A case of South African listed companies in the post-apartheid era**

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ABSTRACT:

Despite the amount of empirical tests carried out to determine the dividend signalling hypothesis, evidence of the exact information embedded in those dividends is still inconclusive. This study explored empirical literature which links the dividend signalling theory to various aspects of financial performance and justified why empirical studies must not limit dividend signalling to one measure of financial performance. This is especially important since almost all studies only examine the dividend-earnings test. Using panel data models, data for 35 firms listed on the JSE from 1995 to 2016 and regression analysis, the study examined the relationship between dividend changes and profitability, liquidity and gearing. By going beyond the usual dividend-earnings test, the study opens avenues to answer the most important question as to what exactly is signalled when firms change dividends. Findings from the study revealed that when one controls for the mean reversion and autocorrelation of profitability, changes in earnings and in ROA are not explained by changes in dividends. On the other hand, the dividend-liquidity test revealed that dividends are positively and significantly related to liquidity. Moreover, the dividend-gearing test showed that dividends are negatively and significantly related to a firm's expected debt levels. Indeed, it is the results from the last two tests that reveal how dividend signalling might still be a puzzle as most authors limit it to profitability.

Key words: dividend signalling, financial performance, profitability, liquidity, gearing

INTRODUCTION

According to Kapoor (2009) dividends are not only a key variable through which investors can gauge how well a firm has been doing, but can also be a measure of expected performance. In this regard, dividends are not a mere return to investors but can reveal more, at least as far as the shareholders are concerned, about the performance of a firm (Sharma, 2015). This is especially true since managers possess more information regarding the current and especially the expected performance of a firm (Iqbal, 2014). Based on this argument, any changes in dividends can be interpreted to have some information regarding the expected future performance of the firm, hence the birth of the dividend signalling theory (Vieira, 2005).

The dividend signalling concept has been a topic of research and debate for over five decades ever since Lintner's (1956) proposition on the topic (Njonge, 2014). Despite the amount of attention the topic draws, there is still inconclusive evidence on what exactly is signalled by dividends, if they do carry signals at all (Njonge, 2014). In fact, if one looks at the dividend signalling picture, it still consists of different unsolvable puzzle pieces, a fact acknowledged by Black (1976) and further reinforced by Bernstein (1996). Later on Frankfurter (1999:83) excellently summed it all up and noted that "it is either not possible, or extremely difficult, to find an economically rational solution to the dividend puzzle".

Indeed, in an attempt to unravel the dividend signalling puzzle, scholars and analysts have failed to unanimously agree on the exact information that is embedded in dividend changes (Al-Makawi, Rafferty and Pillai, 2010). For instance, authors such as Lee (2010a), Lee (2010b), Lukose and Rao (2010) as well as Lee, Isa and Lim (2012) used the dividend-profitability test and investigated whether managers use dividends to convey information regarding future changes in a firm's profitability. The authors' dominant profitability measures were Return on Assets (ROA) and Return on Equity (ROE).

On the other hand, authors such as Benartzi, Michaely, and Thaler (1997), Nissim and Ziv (2001), Grullon, Michaely and Benartzi (2003) as well as Vermeulen and Smit (2013) investigated the same dividend-profitability test but instead argued that changes in dividends convey information regarding changes in a firm's expected earnings. Interestingly, this group of authors differentiates their studies from their dividend-ROA counterparts by arguing that dividends are not a signal of profitability as is measured by metrics as ROA or ROE, *per se,* but specifically reflects the expected level of earnings growth (Pandey, 2015). In fact, the basis of their argument emanates from Lintner (1956)'s discussion that managers can only increase dividends when they believe that earnings have permanently increased.

The lack of agreement amongst authors as to what is exactly signalled by changes in dividends has led to a notable number of studies which examined the relationship between movements in dividends and movements in either ROA, ROE or earnings. Yet, despite the number of studies conducted on the dividend signalling hypothesis, there has only been a handful of authors who carried out empirical tests on other dividend signalling hypotheses such as Bhattacharya (1979)'s signalling hypothesis that dividends carry information about a firm's expected cash flows. In fact, it has only been in recent years that signalling studies have turned to investigate the possibility of dividends as a signal of liquidity. Authors such as Bessler and Nohel (2000), Kauko (2012), Forti and Schiozer (2015) as well as Oliveira, Schiozer and Barros (2015) have come to the conclusion that if managers possess information regarding future and/or current cash flows that investors do not have, investors will interpret dividend increases as signals that management anticipates permanently higher cash flows. Their argument is driven by the fact that even though dividends are declared from profits earned, they are still paid from a firm's cash reserves (Forti and Schiozer, 2015). Based on this discussion, firms can only commit to high dividends if they are confident that they have enough cash reserves to sustain the change in dividends.

In a bid to also understand the exact information signalled when dividends change, Grullon teamed up with Michaely and Swaminathan to determine whether dividends changes are signals of changes in the debt levels of a firm (Grullon, Michaely, and Swaminathan, 2002). The argument behind their work was that firms with a high level of debt will have to commit to the payment of high interest expenses hence reducing dividends declared and paid. Following their argument, it can therefore be reasoned that firms can only increase their dividend levels when they believe that there has been a decrease in their debt level, thus releasing them from the commitment to pay interests.

Based on the different approaches discussed above, it seems as if changes in dividends could be a signal of different aspects of future financial performance. For instance, Charitou and Vafeas (1998) justified the relationship between dividends and liquidity by arguing that since management extensively consider the current and expected liquidity position of a firm, dividends changes could carry liquidity signals. This was later substantiated by Adelegan (2003) who argued that it is folly to only limit the dividend signalling hypothesis to profitability as tests between dividend changes and expected cash flows suggest a strong and positive relationship between the variables. Furthermore, Denis, Denis and Sarin (2009) analysed capital investments after dividend increases and decreases and found that firms that had enough cash for capital investments experience dividend increases in prior years, hence indicating a relationship between prior dividends and subsequent cash flows. Based on the evidence presented above, it would indeed be folly to only limit the dividend signalling hypothesis to profitability as the studies above are indicative of the ability of dividends to signal subsequent changes in a firm’s cash flow.

Mworia (2016) encouraged debate on the ability of dividends to signal future debt levels with the argument that since the payment of dividends reduce the amount of internal capital for financing investments, firms which may are highly geared may pay lower dividends than their counterparts with increases in dividends only initiated when there is an expected permanent decrease in debt levels. This link between dividends and debt warrants the need to explore whether dividends carry signals regarding expected debt levels. This is especially true in the South African context where most companies rely on debt to finance investments (Steenkamp, 2013). In this regard, firms could use dividends to send information should they expect debt related costs to go down thus freeing funds for dividends (Grullon et al, 2002)

The discussion above substantiates Brigham and Houghton’s (2007) argument that the dividend policy adopted by a firm reflects a firm’s overall performance. In fact, as Vieira (2005) proposed, exploring the dividend signalling hypothesis should not be limited to one aspect of a firm's financial performance but needs to extended to various aspects of financial performance that could possibly be signalled when firms change their dividend level by looking at various aspects of financial performance. This is the central issue investigated in this paper. This is especially true in the South African context where the dividend signalling hypothesis has mainly been limited to the signalling of earnings as is evidenced by studies by authors such as Wolff and Auret (2009), Vermeulen and Smit (2013) and Montgomery (2015) yet it has been proven that a firm's dividend policy could be related to aspects such as liquidity and gearing.

This study, therefore investigates four different aspects of financial performance that could possibly be signalled when firms change dividends in post–apartheid South Africa from 1995 to 2016. These various measures of financial performance are changes in a firm's profitability, liquidity and gearing.

In order to achieve the above mentioned general objective, the research had the following specific objectives as follows:

a) To investigate the relationship between changes in dividends and changes in future earnings.
b) To investigate the relationship between changes in dividends and changes in future ROA.
c) To investigate the relationship between dividends and changes in future liquidity as is measured by the current ratio.
d) To investigate the relationship between changes in dividends and changes gearing as is measured by the debt to equity ratio.

The author differentiated between the signalling of earnings and ROA as is shown by objectives *a* and *b* above following the argument by Lintner (1956) that managers would only increase dividends when they were certain that earnings had increased permanently. Furthermore, ROA was also used as another profitability measure based on Pandey (2015)'s assertion that although earnings are a measure of how profitable the whole business unit was, they do not necessarily reflect the operational efficiency of a firm as is reflected by ROA. The study also used the Current ratio (CR) and the debt to equity ratio (DER) as liquidity and gearing ratios respectively following methodology by Vieira (2005).

To achieve the above objectives, hypothesis (a) to (d) were developed as follows:

$H_{0(a)}$: *Increases or decreases in the current level of dividends are not associated with increases or decreases in future earnings.*

$H_{1(a)}$: *Increases or decreases in the current level of dividends are associated with increases in future earnings.*

The second hypothesis (b) was formulated based on the ability of dividends to signal future profitability as measured by ROA as follows:

$H_{0(b)}$: *Increases or decreases in the current level of dividends are not associated with increases or decreases in a firm's future ROA.*

$H_{1(b)}$: *Increases or decreases in the current level of dividends are associated with increases or decreases in a firm's future ROA.*

Furthermore, hypothesis (c) tests the relationship between changes in the dividend level and future changes in a firm's liquidity measured using CR.

$H_{0(c)}$: Increases or decreases in the current level of dividends are not associated with increases or decreases in a firm's future CR.

$H_{1(c)}$: Increases or decreases in the current level of dividends are associated with increases or decreases in a firm's future CR.

Finally, hypothesis (d) is formulated to examine the inverse signalling relationship that exists between dividends and gearing, whereby firms can only commit to a dividend increase if they believe that there will be a lower gearing level as is reflected by a lower DER.

$H_{0(d)}$: Increases or decreases in the current level of dividends are not associated with decreases or increases in a firm's future DER.

$H_{1(d)}$: Increases or decreases in the current level of dividends are associated with decreases or increases in a firm's future DER.

The structure of the paper takes the form of five detailed sections, including this introductory section. The literature review section looks at both theoretical and empirical issues surrounding dividends and dividend signalling, while the methodology section outlines the steps followed in conducting the research. Section four explains the data and findings while the final section provides a conclusion to the study.

LITERATURE REVIEW

Theoretical Literature Review

Lintner (1956) conducted interviews for well established firms to determine factors which managers actively considered the most when making dividend decisions. The author found that in almost all instances there was a general reluctance to adjust dividend if earnings had not permanently increased. Similarly, dividend reductions were also less seldom (Lintner, 1956). The author concluded that the mere reluctance by managers to change dividend rates mainly emanated from the belief that dividends conveyed information regarding the prospects of a firm, thus needed to be changed with caution.

Bhattacharya (1979) proposed analysing dividend signalling theory from another angle after developing a model which proposed that dividend changes are a function of a firm's expected cash flows. Bradley, Capozza and Seguin (1998) reiterated Bhattacharya (1979)'s view by arguing that given the negative consequences associated with dividend reductions, managers rationally reduce dividends when future cash flows are uncertain. Based on this argument, when managers change their dividend payout ratios, they could be sending signals regarding expected liquidity levels, thus making the investigation of the relationship between dividends and liquidity justified.

According to Baker and Wurgler (2012), the dividend signalling hypothesis can also be explained using behavioural models which assume that changes in dividends revolve around a central point with any deviations prompting reactions from investors. The authors observed that most investors develop a dividend reference point which they compare subsequent dividends with. If subsequent dividends are more than reference-point dividends, they conclude that the firm's expected performance is positive. On the contrary, lower than reference-point dividends will send negative signals.

In a nutshell, though there are different dividend signalling theories, there is still one common concluding remark amongst the authors: dividends have an ability to carry information to less informed stakeholders. Yet, despite the overwhelming evidence that dividends indeed do carry signals, the contents embedded in those signals still is a puzzle.

Empirical Literature Review

The dividend signalling of earnings

Traditionally, financial literature has supported the theory that higher dividend payout ratios lead to lower subsequent earnings (Montgomery, 2015). Huang, You and Lin (2009) substantiated the same claim and concluded that in practice, firms that pay high cash dividends tend to have reduced future earnings while those with liberal dividends report higher subsequent earnings. Based on the foregoing discussion, the consensus view seems to be that high dividend payouts are associated with low subsequent earnings. Yet, a considerable amount of empirical studies seem to have conflicting conclusions on the issue.

Watts (1973) was one of the first authors to test the ability of dividends to signal future earnings. The author regressed future earnings against historical dividends and found a positive but weak relationship between past dividends and subsequent earnings.

Nissim and Ziv (2001) investigated the relationship between dividend changes and changes in earnings in the US market. The authors used dividend events between 1963 and 1998 with dividends per share and earnings per share being dependent and independent variables respectively. The main argument presented in the study was that studies such as Watts's (1973) study which failed to corroborate the dividend signalling hypothesis used flawed models that omitted important variables such as ROE. As a result, the authors included ROE into their model, asserting that it is an important predictor of earnings. The authors regressed changes in earnings against changes in dividends using a model that controlled for the mean reversion of earnings and concluded that dividend increases are associated with increases in future earnings and profitability for at least 4 years.

Grullon et al. (2005) challenged Nissim and Ziv's (2001) methodology by arguing that accounting for the mean reversion process as a linear process is flawed. The authors followed recommendations by Fama and French (2000) and assumed the rate of mean reversion and auto correlation of earnings to be non-linear; an assumption which seems realistic considering that earnings fluctuate in a non-linear manner. Using a non-linear model of earnings expectation, the authors concluded that dividends and future earnings are not correlated.

Arnott and Asness (2003) used the US market to investigate whether changes in future earnings are explained by changes in the dividend payout ratio. Interestingly, the authors fuelled controversy with the assertion that a firm's expected earnings are at their peak when the current payout ratios are high and dips when firms lower their payout ratios. In fact, as M'rabet and Boujjat (2016) commented, Arnott and Asness (2003)'s findings contradicted the common view that a liberal reinvestment policy of retained earnings fuels faster future earnings growth.

Zhou and Ruland (2006) asserted Arnott and Asness (2003)'s view when they conducted an investigation on a sample of Australian firms and concluded that there is a strong and positive relationship between a firm's current dividend payout and its future earnings.

Using data from the South African market, Vermeulen (2011) replicated the work of Zhou and Ruland (2006) to determine if changes in subsequent earnings could be explained by changes in past dividends. As was the case in Zhou and Ruland's (2006) study, the author found that a significant positive relationship exists between current dividend payout ratios and future earnings.

Along similar lines, Montgomery (2015) adopted the methodology used by Arnott and Asness (2003) for South African listed firms operating from 1960 to 2014 and analysed the relationship between dividend payout and earnings. This time, the results showed a negative relationship between dividend payout and subsequent earnings.

Despite the overwhelming evidence in support of the ability of dividend changes to signal changes in subsequent earnings, there have been authors whose empirical tests do not support the notion that dividend changes can send signals regarding changes in expected earnings (Farsio, Geary and Moser, 2004).

Farsio, et al. (2004) hypothesised that no significant relationship exists between dividends and earnings in the long run. The authors used quarterly data collected from 500 firms listed on the S&P index from 1988 to 2002 and employed a simple regression test and concluded that in the long run, no causal relationship exists between dividends and future earnings. In fact, the authors warned investors of the potential to be misled by the fleeting short term relationship between dividends and earnings

Asem and Kaul (2014) further reinforced the work of Farsio et al. (2004) in the US market by concluding that dividend reductions do not signal decreases in subsequent earnings and vice versa.

Mbithi (2014) used data from the Kenyan market from 1999 to 2012 to investigate whether dividend changes are related to future earnings. The fixed effect regression model was used and the evidence found failed to support dividend signalling of future earnings at 5% significance level.

The same results were reiterated by Eniola and Akinselure (2016) who examined the impact of dividend payout on earnings in Nigeria using secondary data from 2004 to 2013 and could not find sufficient evidence to support the dividend signalling hypothesis.

The dividend signalling of ROA

Studies on the hypothesis that past dividends signal an improvement in a firm's profitability as is measured by metrics such as ROA and ROE have not only been scarce but have also consistently yielded inconclusive results. The following section looks at those studies in detail.

In 2003, famous dividend signalling gurus, Grullon, Michaely, Benartzi and Thaler (2003) teamed up and made their contribution to the dividend signalling puzzle. In their well-known paper titled “*Dividend Changes Do Not Signal Changes in Future Profitability”,* the authors found that after controlling for the non-linear behavior of profitability, current year dividends were negatively correlated with future ROA.

Joos and Plesko (2004) tested the dividend signalling hypothesis by investigating the predictive power of dividend increases for loss making firms using ROA as a measure of profitability. The authors found enough evidence to support the signalling power of dividend increases.

Abrahamsen and Balchen (2010) used the Norwegian market to investigate whether changes in dividends affect a firm’s expected ROA. Using multivariate regression, the authors found that firms with dividend initiations and increases experienced an increase in future ROA.

Enekwe, Nweze and Agu (2015) investigated the effect of the dividend payout ratio on the financial performance of cement companies listed on the Nigerian Stock Exchange from 2003 to 2014. The authors used various ratios ranging from the Return on Capital Employed (ROCE), ROA and ROE to measure profitability with the dividend payout ratio as the proxy for dividend policy. Using panel analysis and OLS regression, the authors found a positive and significant relationship between dividends and subsequent profitability.

Despite the seemingly overwhelming evidence in support of the ability of dividends to signal expected changes in ROA, there have been studies which failed to find enough evidence to corroborate the hypothesis. For instance, Lee et al. (2012) used the event study methodology to investigate the relationship between past dividends and subsequent changes in ROA in Malaysia using data from 1998 to 2007. The authors found that there is a poor correlation between dividend changes and future profitability, especially in the long run.

Similarly, Velnampy, Nimalthasan and Kalaiarasi (2014) used data collected from manufacturing firms listed on the Colombo Stock Exchange from 2008 to 2012 to test if changes in ROA were explained by changes in past dividends. The authors could not find enough evidence in support of dividend signalling of ROA.

In South Africa, not many studies have been conducted specifically investigating the link between dividends and ROA. In fact, authors such as Wolff and Auret (2009), Vermeulen (2011), Vermeulen and Smit (2013) as well as Montgomery (2015) investigated the signalling of profitability but only used earnings as the metric of interest. This lack of empirical literature on the dividend-ROA relationship indicates a need to not only expand knowledge but to also understand if indeed changes in ROA could be explained by changes in the dividend payout pattern.

The dividend signalling of liquidity

Bhattacharya (1979) and John and Williams (1985)’s most important contribution to dividend signalling has been the assertion that a firm’s subsequent cash levels are related to the level of dividends paid in a given year. Indeed it has been this assertion that led to empirical studies testing the relationship between changes in dividends and future changes in liquidity. Interestingly, this relationship has not been empirically tested as extensive as the dividend–profitability hypothesis.

Kale and Noe (1990) reinforced the work of John and Williams (1985) and suggested that dividends are a signal of the stability of a firm's future cash flows. The authors further asserted that it is only firms with the confidence of an improvement in cash flows which can use increase their dividend payout. To test the ability of dividends to convey information regarding future cash flows, Thanatawee (2014) used data from 2000 to 2008 and employed the Pearson correlation matrix. The authors found that firms that expected an increase in liquidity always increased dividends in the prior year.

Kauko (2012) developed a model which showed that dividends are an important source of information regarding future liquidity in banks. Findings from this study showed a significant and positive relationship between dividends and liquidity. Kauko (2012) attributed this relationship to the need by managers to calm information sensitive investors in the banking industry.

Forti and Schiozer (2015) investigated whether Brazilian banks use dividends to signal the quality of their assets as well as expected liquidity levels. The authors' major observation, especially in the Brazilian financial market, was that banks increase dividends to signal an improvement in liquidity to information-sensitive depositors.

To date, studies exploring the ability of dividend changes to signal changes in expected liquidity levels have only limited to developed countries. This makes this study to be of utmost importance in the South African context as it goes beyond examining the ability of dividends to signal future profitability and also extends the dividend signalling concept to liquidity.

The dividend signalling of gearing

A handful of researchers investigating dividend signalling suggested extending empirical tests to the signalling of subsequent debt levels (Galai and Wiener, 2013). According to Geske and Delianedis (2001), the dividend payout policy is one of the main factors that explain a firm's future observed long term and short term credit level and spread. The authors used a sample of US-based firms from 1991 to 1998 and found that microeconomic variables such as dividends had little or no significant impact on credit levels and spread.

Aivazian, Booth and Cleary (2003) examined the relationship between dividend policy and the debt ratio. The authors used two comparative samples of firms with the first sample consisting of firms from eight emerging bank-oriented markets while the second sample was made of American-based firms. It was observed that firms which experienced high debt ratios paid low dividends in preceding years and vice versa.

Using Merton's model, Galai and Wiener (2013) showed that a firm's dividend policy impacts the value of debt and equity. In that same year, Bijia (2013) used data from Hong Kong to evaluate whether dividend increases led to changes in financial leverage. The author found that instead of leading to decreases in leverage, firms which increased dividends experienced an increase in financial leverage from 37% to 45%.

A closer look at the small number of studies carried out on dividend signalling of future gearing indicates how there still is work to be done to solve the dividend puzzle. This is especially true in the South African context considering the glaring absence of empirical evidence that test whether dividend changes could possible carry information regarding the gearing of a firm.

Signalling of various aspects of financial performance

Recently, the question of whether dividend signalling should be limited to one measure of financial performance or not has become a subject for debate in finance circles (Vieira, 2005). This emanates from Brigham and Houston (2007)'s assertive remark that the dividend policy adopted by a firm is a crucial determinant of its overall financial performance. Indeed it has been the link between dividend policy and overall financial performance that prompted authors such as Vieira (2005), Vieira and Raposo (2007), Bijia (2013) as well as Enekwe et al. (2015) to investigate the dividend signalling hypothesis using different measures of financial performance in order to decipher the exact financial performance measure signalled when managers change the dividend policy

Vieira (2005) examined the relationship between dividends and profitability measures such as earnings, ROA and ROE but also extended the same signalling hypothesis to liquidity and gearing as was measured by the current ratio and debt to equity ratios respectively. Incorporating all these various measures of financial performance enables one to determine the exact aspect(s) of financial performance signalled via dividend changes.

Bijia (2013) examined whether managers could use dividends to signal changes in future profitability, gearing as well liquidity. The author used ROA for profitability while the debt to equity and current ratios were measures of gearing and liquidity respectively. The author found that lower dividend payout were associated with lower cash levels as was evidenced via lower current ratios in years preceding dividend announcements. Moreover, decreases in dividend payout were associated with high gearing levels as was reflected by an increase in the DER while there was a decline in ROA for firms that increased their dividend levels.

Moscu, Grigorescu and Prodan (2014) extended the study of Vieira (2005) to the Bucharest market with slight variations of variables for financial performance. The author sought to determine whether there is a correlation between the dividend policy a firm adopts and future corporate performance. Data such as ROA, ROE, Tobin Q, market to book ratio and free cash flow was collected for 55 listed firms listed on from 2010 to 2013. The author found that dividends carried signals regarding a firm's profitability measured by both ROA and ROE. The author, however, could not find enough evidence to support the relationship between dividends and liquidity as well as gearing.

Based on the different results obtained from the above key studies, it becomes clear that using one measure of financial performance might not show the exact information embedded in the signals carried by changes in dividends. It seems the most objective way to try and solve the dividend signalling puzzle would be to ensure that various performance ratios are examined before making conclusions regarding the exact information embedded in dividends.

METHODOLOGY

Henning, Van Rensburg and Smit (2004) defined positivistic researchers as researchers who assume a stance of realism, whereby a certain reality is assumed to exist and can be perceived with total accuracy. Studies which adopt this line of reasoning use scientific methods and hypothesis testing to enhance precision in understanding relationships among variables (Henning, et al., 2004). Following the work of Henning et al. (2004), this study adopted a positivism paradigm since it used hypothesis testing to investigate relationships between dividends and measures of financial performance.

The study was correlational and inferential and was analysed through quantitative methods. Furthermore, the study used longitudinal or panel secondary data to achieve the set objectives. The target population of the study consisted of 44 South African non-financial firms listed on the Johannesburg Stock Exchange (JSE) operating in the post-apartheid period whose financial information was available on the INET-BFA database from 1995 to 2016 and consistently paid dividends from 1995-2016. This, therefore, meant that firms with dividend initiations and omissions were excluded from the population of the study as these extreme changes in dividend payment patterns have different effects on financial performance in comparison with consistent dividend payments (Shahwan, 2015). Excluding firms with dividend omissions also enabled the study to be consistent and comparable with studies by authors such as Nissim and Ziv (2001) and Grullon et al. (2005).

In order to ensure industrial representativeness, firms in the target population were stratified per industry and then randomly selected without replacement into the final sample. This enabled every firm in the population to have a chance of being selected as was substantiated by Barreiro and Albandoz (2001). In the end, the sample had a balanced panel comprising 35 firms across different industries thus making the number of observations in the panel to be 735 dividend observations.

Description of variables

The study used headline earnings per share as the one of the dependent variables for profitability. Using headline earnings seemed relevant since it a prerequisite for all companies listed on the JSE to calculate headline earnings for every financial year. Headline earnings were calculated as earnings excluding separately identifiable re-measurements, net of tax (Steenkamp 2013). This figure was then scaled by the number of shares issued. The change in earnings was determined as $\Delta \boldsymbol{E_{i,t}} = \frac{\boldsymbol{E_{i,t} - E_{i,t-1}}}{\boldsymbol{E_{i,t} - 1}}$ following methodology by Nissim and Ziv (2001), where $\boldsymbol{E_{i,t}}$ represents earnings for firm *i* in year *t* while $E_{i,t\ -1}$ are earnings in for firm *i* in the previous year, *t-1.*

Furthermore, ROA was used as a preferred additional measure of profitability, apart from headline earnings since it is not sensitive to changes in capital structure compared to its common counterpart, ROE (Nissim and Ziv, 2001). ROA was calculated as total profit before interest and tax scaled by the book value of assets (Gitman and Zutter, 2011). Changes in ROA were determined as $\Delta \boldsymbol{ROA_{i,t}} = \frac{\boldsymbol{ROA_{i,t} - ROA_{i,t-1}}}{\boldsymbol{ROA_{i,t} - 1}}$ with $\boldsymbol{ROA_{i,t}}$ representing ROA in year *t* for firm *i* while $\boldsymbol{ROA_{i,t-1}}$ shows ROA for firm *i* in year *t-1.* Additionally, the current ratio was used as a measure of firm liquidity, using the ratio between current assets and current liabilities while the debt to equity ratio as is measured by total debts divided by total equity was used as a gearing measure. Changes in the current ratio and the debt to equity ratio were calculated using a formula similar to the one used for headline earnings and ROA.

The dividend payout ratio was used as a proxy for dividend policy following a convincing argument by Thomas (2010) that a firm's dividend payout ratio tends to follow the life cycle of a firm, starting extremely low when the firm is in a high growth phase, gradually increasing as the firm reaches its maturity phase and its growth prospects decrease. The dividend payout ratio was calculated for all firms as the dividend per share scaled by earnings per share (Kapoor, 2009). Using the payout ratio enabled this study to be comparable in methodology with studies by authors such as Arnott and Asness (2003), Murekefu and Ouma (2012), Njonge (2014) and Montgomery (2015). Changes in the payout ratio were calculated as $\Delta \boldsymbol{DPR_{i,t}} = \frac{\boldsymbol{DPR_{i,t}} - \boldsymbol{DPR_{i_{t-1}}}}{\boldsymbol{DPR_{i_{t-1}}}}$ with $\boldsymbol{DPR_{i,t}}$ showing the payout ratio for firm *i* in year *t* while $\boldsymbol{DPR_{i,t-1}}$ reflects the payout ratio followed in the previous year, *t-1.*

The author controlled for factors such as firm size and level of growth as they have an influence on financial performance (Manneh, 2014). Following recommendations by Chipeta (2012), the natural logarithm of total assets was used as a proxy for firm size while growth was controlled for using the ratio of market to book value of equity.

Model of estimation

Taking into account the work of Vieira (2005), the author used dynamic panel models, which had lagged dependent variables. Lagged dependant variables were included following Fama and French's (2000) assertion that firm's past performance influences its future performance.

According to Chipeta (2012), panel data can be estimated using either a fixed effects model (FEM), a random effects model (REM) or pooled ordinary least squares (OLS). However, according to the authors, it is of utmost importance to ensure that the correct model is used as it has a bearing on the outcome of the study.

According to Asteriou and Hall (2007), a fixed effects model can be used in the presence of firm specific factors such as geographic location which have an effect on financial performance yet remain fixed over time. On the other hand, the random effects can be used if there are no omitted variables in the model or if there are omitted variables which are uncorrelated with the explanatory variables that are in the model (Chipeta, 2012). Finally, Chipeta (2012) noted that pooled OLS can be used if there is no distinction between firms, an assumption which may be difficult to maintain especially in this case where firms were chosen from various industries.

Estimation technique for the dividend signalling of earnings

The estimation technique for the ability of dividends to signal changes in earnings was based on the mean reversion model by Fama and French (2000) and methodology by Nissim and Ziv (2001), Grullon et al. (2005) and Vieira (2005). According to the authors, financial performance, especially profitability is mean reverting due to factors such as market forces, competition and new entrants. Moreover, the authors asserted that models designed to determine financial performance must account for the relationship between past and expected performance as past performance influences future performance. As a result, this study controlled for the mean reversion of earnings by adding a dummy variable which takes the value of 1 when earnings revert from positive values and included a lagged performance variable to account for the influence of past performance on future performance.

Based on the preceding discussion, equation **(3)** below was modelled to determine if changes in earnings can be explained by changes in the dividend payout ratio controlling for frim size and growth.

$$\Delta \boldsymbol{E_{i,t}} = \boldsymbol{\alpha} + \boldsymbol{\beta_1}\, \Delta \boldsymbol{DPR_{i,t-1}} + \boldsymbol{\beta_2}\, \boldsymbol{E_{i,t-1}} + \boldsymbol{\beta_3}\, \boldsymbol{PDFED_{i,t-1}} + \boldsymbol{\beta_4}\, \boldsymbol{SIZE_{i,t-1}} + \boldsymbol{\beta_5}\, \boldsymbol{GROWTH_{i,t-1}} + \boldsymbol{u_{i,t-1}} \quad \textbf{(3)}$$

where $PDFED_{i,t}$ is a dummy variable which takes the value of 1 when earnings are reverting from a value which is positive otherwise it is 0 and $u_{i,t}$ is the composite error term made up of $u_i + v_{i,t}$ with u_i representing unobserved, time invariant and firm specific effects (fixed effects) while $v_{i,t}$ is a stochastic term.

Estimation technique for the dividend signalling of ROA

Using an estimation equation similar to equation **(3)**, equation (**4)** was constructed as follows:

$$\Delta \boldsymbol{ROA_{i,t}} = \boldsymbol{\alpha} + \boldsymbol{\beta_1}\, \Delta \boldsymbol{DPR_{i,t-1}} + \boldsymbol{\beta_2}\, \boldsymbol{ROA_{i,t-1}} + \boldsymbol{B_3} \boldsymbol{PDFED_{i,t-1}} + \boldsymbol{\beta_4}\, \boldsymbol{SIZE_{i,t-1}} + \boldsymbol{\beta_5}\, \boldsymbol{GROWTH_{i,t-1}} + \boldsymbol{u_{i,t-1}} \quad \textbf{(4)}$$

Estimation technique for the signalling of liquidity

The following equation was used to estimate the relationship between changes in dividends and future changes in liquidity:

$$\Delta \boldsymbol{CR_{i,t}} = \boldsymbol{a} + \boldsymbol{\beta_1}\, \Delta \boldsymbol{DPR_{i,t-1}} + \boldsymbol{\beta_2}\, \boldsymbol{CR_{i,t-1}} + \boldsymbol{\beta_3}\, \boldsymbol{PCR_{i,t-1}} + \boldsymbol{\beta_4}\, \boldsymbol{SIZE_{i,t-1}} + \boldsymbol{\beta_5} \boldsymbol{GROWTH_{i,t-1}} + \boldsymbol{u_{i,t-1}}$$

(5)

Whereby $CR_{i,t}$ is a lagged liquidity variable to capture the relationship between past and future liquidity levels, PCR_i, t is a dummy variable which capture the reversion of financial performance. PCR_i, t is 1 (0) when a firm's liquidity position reverts from a positive (negative) value to the industry mean and $\boldsymbol{u_{i,t-1}}$ is the error term.

Estimation technique for the signalling of gearing

To investigate whether changes in dividends are related to changes in future debt levels, equation **(6)** was modelled similar to equation, **(3), (4)** and **(5)** above:

$$\Delta \boldsymbol{DER_{i,t}} = \boldsymbol{a} + \boldsymbol{\beta_1}\, \Delta \boldsymbol{DPR_{i,t-1}} + \boldsymbol{\beta_2}\, \boldsymbol{DER_{i,t-1}} + \boldsymbol{\beta_3}\, \boldsymbol{PDER_{i,t-1}} + \boldsymbol{\beta_4}\, \boldsymbol{SIZE_{i,t-1}} + \boldsymbol{\beta_5} \boldsymbol{GROWTH_{i,t-1}} + \boldsymbol{u_{i,t-1}} \quad \textbf{(6)}$$

$\boldsymbol{PDER_{i,t-1}}$ is a dummy variable takes the value 1 in the event that the firm was reverting from a low debt position, otherwise it is 0.

Specification and diagnostic tests

In order to choose between FEM and REM, the author ran a Hausman (1978) test which followed a chi-squared test with degrees of freedom equal to the number of regressors and a null hypothesis that the random effects model was suitable. In the event that the Hausman (1978) test supported the use of the fixed effects model, Greene (2003) recommended further running a fixed effects test to determine whether including period fixed effects would be relevant or not with the null hypothesis that all the firms in the sample are the same, hence allowing for the use of pooled OLS. To determine whether fixed effects were relevant, the F-Chow test was used.

The author also tested for the undesirable correlation of residuals across entities using the Pesaran CD test with the null hypothesis that residuals across firms are not correlated (Chipeta, 2012). Moreover, heteroskedasticity and serial correlation tests were conducted using the Breusch-Pagan and the Breusch-Godfrey tests as since heteroskedastic and serial correlated error terms could lead to incorrect inference especially in hypothesis testing. In the event of heteroskedasticity and serial correlation, the researcher used Newey and West's HAC Consistent Covariance or White's estimators which are consistent in the presence of both heteroskedasticity and autocorrelation and are built into Eviews.

Running the above tests ensured the validity of data hence making the findings of this study to be generalisable to the population.

RESULTS INTERPRETATION AND DISCUSSION

The section shows results of tests conducted with tables *1* and *2* showing Descriptive Statistics and the Hausman test results respectively. Regression results are presented in tables *3* to *6*. Furthermore, Tables 1 to 2 show the Hausman (1978) test and descriptive statistics respectively.

Descriptive Statistics

Table 1 below shows the descriptive statistics of the variables used in the analysis. The dividend payout ratio seems to be widely spread with a standard deviation of 2.304359. In fact, firms with the most liberal dividend policy paid 136.6772 % of their earnings as dividends while on average, firms paid only 3.6993 % of earnings as dividends since 1995. This spread of dividends compares similarly to Benartzi et al.'s (1997) sample. Benartzi et al. (1997) attributed this discrepancy with differences in firm size and industry dynamics, especially considering that firms were selected from different industries across South Africa. The same could be said about earnings which have a mean of 0.23 per share yet some firms reported a maximum of R79.31 per share whilst others only had a meagre -16.63 earnings per share.

The current ratio, Debt to equity and size seem to be less widely spread compared to the other variables with a standard deviation of 0.438537, 0.835773 and 0.655182 respectively. However, size and industrial differences still could have contributed to the huge variance between the maximum and minimum reported figures.

Table 1: Descriptive Statistics

Variable	Mean	Median	St. Dev	Min	Max

Dividend Payout	0.036993	-0.002288	2.304359	-38.50000	13.66772
Earnings	0.229671	0.134539	3.081515	-16.62500	79.30667
ROA	0.010825	-0.000332	2.022804	-44.52850	14.29752
Current Ratio	0.069610	0.010327	0.438537	-0.774390	4.998592
Debt to Equity	0.094036	-0.022642	0.835773	-0.777778	15.25000
Size	0.149904	0.122436	0.655182	-0.971995	11.61709
Growth	0.246034	0.022599	2.081188	-0.989839	46.69231

Since panel data can be estimated using FEM, REM or OLS, a Hausman test was conducted to determine the appropriate model amongst the three. Table 2 below shows the Hausman (1978) test results.

Table 2: Hausman test results

Regression model	**P-value**
Signalling of earnings	0.0000
Signalling of ROA	0.0000
Signalling of liquidity	0.0000
Signalling of gearing	0.0000

Since the null hypothesis was that the REM was appropriate, a p-value of 0.0000 for all models meant that the FEM yielded consistent results. The F-Chow test also revealed results in favour of FEM.

In order to determine whether dividend changes could send signals about changes in expected earnings, ROA, liquidity and gearing, the author carried out regression tests using the FEM with results presented in *Table 3* below.

Table 3: Dividend signalling of earnings

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.544319	1.219756	-0.446253	0.6556
DPR_(-1)	0.172225	0.113089	1.522917	0.1283
E_(-1)	-0.064962	0.055402	-1.172559	0.0240
GROWTH_(-1)	-0.013226	0.010022	-1.319653	0.1874
SIZE_(-1)	0.075844	0.081770	-0.927535	0.0355
PDFED(-1)	-2.916322	1.265385	0.645082	0.0011

The results show a positive relationship between dividends and earnings, an outcome which is in line with not only the dividend signalling hypothesis but also with Arnott and Asness' (2003) results that firms which pay liberal dividends experience increases in earnings. However, these results are not significant to warrant such a conclusion, thus reinforcing findings by Benartzi et al (1997) and Grullon et al. (2005) that, after controlling for mean reversion and auto correlation of earnings, changes in earnings cannot be explained by changes in dividends.

As expected, *PDFED*, which is a dummy which captures the mean reversion process, reveals that firms which had positive earnings in the previous year suffer a decrease in earnings in preceding years as shown by a negative coefficient of -2.916322. PDEF also shows a significant p-value of 0.0011 proving Fama and French's (2000) mean reversion theory.

Moreover, firm size was positively and significantly related to earnings echoing Pervan and Visic's (2012) assertion that the larger a firm is, the more economies of scale in enjoys, hence increasing its profitability. These findings are consistent with findings by Thanatawee (2014) in Thailand and Mui and Mustapha (2016) using evidence from Malaysia.

The variable *GROWTH* showed a negative relationship with earnings, an expected outcome since firms with high growth prospects invest funds which they would otherwise have used to generate profit (Mui and Mustapha, 2016).

Table 4: Dividend signaling of ROA

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-3.492102	3.397421	-1.027868	0.3044
DPR_	0.013101	0.064231	0.203962	0.8384
ROA_(-1)	0.141662...	0.053555	-2.645162	0.0084
SIZE_	0.157066	0.103139	1.522855	0.1283
GROWTH_	0.002812	0.014694	0.191340	0.8483
PDFED	-3.53384...	3.459592	1.021462	0.3074

The results above show a positive relationship between dividend payout ratio and ROA. Like the dividend-earnings test results above, the relationship is also not significant with a *p-value* of 0.8384. Interestingly, size is still positively related to ROA but this time the relationship is not significant. This justifies why one needs to use different measures of financial performance when examining relationships. In the case of this study, if the study only used earnings as a measure of profitability, one would have concluded that size is positively and significantly related to profitability while this study showed that size is only related to earnings per share and not necessarily significantly related to ROA. This distinction would assist with making decisions that influence size as one would know the profitability metric is impacted. However, further research may need to be done whereby the effects of size are determined for a number of profitability measures.

In the second model, growth is positively related to ROA, a finding consistent with Mui and Mustapha (2016). However, this relationship is not significant, thus indicating that changes in ROA cannot really be explained by changes in growth prospects.

It is interesting to note how both lagged earnings and lagged ROA are positively related to earnings and ROA in preceding years respectively. This could be explained by Fama and French's (2000) argument that the performance of a firm highly influences its expected performance. However, the relationship is only significant for between lagged and expected ROA showing a *p-value* of 0.0084.

Table 5: Dividend signalling of liquidity

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.076813	0.003330	23.06426	0.0000
DPR_(-1)	0.000778	0.003264	0.238467	0.0811
GROWTH_(-1)	-0.006825	0.003586	-1.903132	0.0575
SIZE_(-1)	0.004783	0.011012	-0.434446	0.6641
CR_(-1)	-0.096758	0.034942	-2.769141	0.0058

Table 6: Dividend signalling of gearing

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.117480	0.004958	23.69609	0.0000
DPR_(-1)	-0.00379...	0.012545	0.302342	0.0762
GROWTH_(-1)	-0.014545	0.004152	-3.502775	0.0004
SIZE_(-1)	-0.031265	0.023797	-1.313822	0.1894
DER_(-1)	-0.074290	0.036043	-2.061162	0.0397

The results in *tables 5* and *6* respectively indicate that past liquidity levels and debt levels are negatively and significantly related to future liquidity and debt levels as is shown by negative coefficients of -0.096758 and -0.074290 and *p-values* of 0.0058 and 0.0397. These results indicate that firms with high liquidity levels would experience a decline in liquidity levels if their preceding years. This outcome could be due to the fact that most firms would find it unbeneficial to maintain current ratios way over the standard 2:1, thus prompting them to use excess funds for investments, thus causing the high liquidity levels to deplete (Gitman and Zutter, 2011). Similarly, firms with high debt levels may end up using alternative sources of capital to fund projects instead of piling on debt, thus causing a decline in the debt to equity ratio (Gitman and Zutter, 2011).

Both tests for the signalling of liquidity and gearing revealed that changes in dividend payout ratios can explain future changes in liquidity and gearing levels. Precisely, DPR show a positive coefficient of 0.000778 showing a positive relationship between prior year dividend levels and expected liquidity levels, with the relationship being significant at 10% level of significant. Moreover, DPR is negative and significantly related to future debt levels indicating that firms will pay less debts when expecting the debt level to go up, with the relationship significant at 10%.

These findings support Bhattacharya's (1979) hypothesis that the dividend policy adopted by a firm may potentially send signals regarding expected cash flows especially from assets. The dividend-gearing test also support Mworia (2016)'s argument that firms can only increase their dividends when they expect their liabilities to go down and vice versa. Results from the last two tests are important as they justify the need to not limit the dividend signalling hypothesis to profitability measures only.

Table 7: Diagnostics tests

Name of test	Null hypothesis	Results
Breusch-Pagan LM test for heteroskedasticity	Homoskedasticity LM < Obs. Value	LM =0.281436 Chi Square observed value = 9.487729
Pesaran CD cross dependence test	No cross dependence	p-value = 0.6630
Breusch Godfrey test	No Serial Correlation	p-value= 0.000

Based on the Breusch-Pagan test for heteroskedasticity, the LM < Chi Squared value thus causing the researcher to fail to reject the null hypothesis of homoscedasticity. Results from the Pesaran CD also revealed the absence of cross dependence, thus making the results from hypothesis testing to be valid. On the other hand, the Breusch- Godfrey test revealed the presence of correlation. The author used Newey and West (1987)'s HAC Consistent Covariance estimator to ensure that the effect of serial correlation was countered.

CONCLUSION AND AREAS FOR FURTHER RESEARCH

This objective of the study was to determine which aspect of financial performance is signalled when firms change dividends. Drawing on recommendations by Vieira (2005), different hypothesis were modelled to estimate if changes in earnings and ROA are explained by changes in prior dividend patterns. The split between earnings and ROA was due to the fact that some authors argue that firms only increase dividends when earnings have increased while other argue that ROA captures the true operational efficiency of a firm.

Unlike most dividend signalling studies which limit the dividend signalling hypothesis to earnings, the study included the signalling of liquidity and gearing in order to capture the essence that dividends can reflect the overall performance of a firm. Interestingly, the results showed that changes in earnings and ROA are not explained by changes in dividends, a finding consistent with studies by Benartzi et al. (1997), Grullon et al. (2005) and Vieira (2005).

This study filled in a vital research gap, especially in South Africa where other dividend signalling hypothesis has not been explored. The positive and significant relationship between dividends and the current ratio echoes Bhattacharya's (1978) theory that firms increase dividends when there is a permanent shift in liquidity.

The results also substantiate the dividend-debt test which showed negative yet significant relationship between dividends and subsequent debt. This showed evidence of the ability of dividends to signal changes in expected debt.

Based on the results from the study it seems that carrying out the study with various financial performance ratios can enable one to understand the financial performance measures affected by dividends. Limiting the dividend signalling hypothesis to profitability would be folly as this study proved that in instances when managers are not sending signals regarding profitability, they could be sending information about an improvement in liquidity and gearing. The author, therefore, recommends for dividend signalling studies to not only test whether dividends are related to earnings, ROA or ROA but extend the test to various measures of liquidity and gearing.

Findings from this study could help investors who are interested in investing in certain firms to gauge the financial health of a firm especially in instances where dividends signal improvements in liquidity or liabilities. Credit providers can also benefit as they can use signals sent via dividend changes to determine whether or not to approve or extend loans for certain firms.

The author only used data from INET BFA to get data for South African listed companies as data was not consistently available for unlisted firms. Moreover, only firms who operate in South Africa where considered for the study as it was impractical to extend this study to all firms in the world. Finally, a discussion of whether dividends carry short term or long term signals was beyond the scope of this study. The study only sought to decipher the exact signals embedded in dividends.

Other authors can use this study as a foundation and carry out further research to see if managers can also use dividends to send signals regarding other aspects of financial performance other than the ones used in this study. Moreover further research can be carried out to determine whether these signals are long term or short term in nature.

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TAX006 **Is sugar tax likely to succeed in its objective of curbing obesity in South Africa?**

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ABSTRACT:

Obesity is on the increase in South Africa; resulting in burgeoning public health care costs. This is because obesity is a contributing factor to many diseases including diabetes mellitus, ischaemic heart disease and hypertension. The consumption of sugar-sweetened beverages has been linked to such weight gain and obesity. Consequently, a sugar tax on sugar-sweetened beverages has been proposed to curb obesity in South Africa. This was due to come into effect on 1 April 2017. It has been postponed from 1 April 2017 due to delays in the parliamentary process.

A literature review was performed to determine whether, based on international experience and findings, sugar tax is likely to curb obesity in South Africa. Various electronic articles as well as published local and international journal articles were consulted to provide evidence in this regard.

From the literature review performed it appears that the mere implementation of sugar tax is not likely to curb obesity in South Africa; yet coupled with other methods, sugar intake and obesity may be reduced.

Key words: Sugar tax, obesity, sugar-sweetened beverages, diabetes mellitus, and fat tax

INTRODUCTION

Background

Sugar addicts will be required to spend more on their sugar-sweetened drinks from April 2017 (Mapumolo, 2016:1). The South African Minister of Finance, Pravin Gordhan, announced in his Budget Speech that government would be implementing sugar tax on all sugar-sweetened beverages (Chinyanga, 2016:1). This is said to be in a bid to curb obesity in South Africa as part of the South African Department of Health's intention to reduce obesity by 10% by 2020 (Chinyanga, The New Age, 2016:1).

Obesity is a contributing factor to many diseases including diabetes mellitus, ischaemic heart disease and hypertension that place significant pressure on the country's health care system (Mapumolo, 2016:1). The South African economy lost approximately R29 billion between 2009 and 2015 due to these diseases with obese workers requiring 49% more paid time off than those who are not obese (Mapumolo, 2016:1).

The Treasury's deputy-director general for Tax and Financial Sector Policy, Ismail Momoniat, stated that the aim with implementing sugar tax is to reduce the consumption of sugar-sweetened beverages by making the beverages more expensive; not to raise additional tax revenue (Kahn, 2016:1). There is, however, no doubt that the additional tax revenue created will be an added benefit to Treasury; given the burgeoning budget deficit (Chinyanga, 2016:1).

Karen Hofman, professor in Public Health at the University of the Witwatersrand, is of the opinion that if this tax is not implemented, 250 000 more South Africans will become obese within the next three years. Obesity in an additional 250 000 people may thus be prevented, if implemented (Mapumolo, 2016:1).

Research problem and questions

The objective of this research report is to address the following research problem:

Is sugar tax likely to succeed in its objective of curbing obesity in South Africa?

To achieve this objective, the following research questions have been formulated

- What is the relationship between sugar intake and obesity?
- Which other countries implemented Sugar Tax regulations and why were these countries relevant for inclusion in the research study?
- What do the sugar tax regulations of these other countries entail?
- What were the recommendations for and the criticisms against the regulations of these respective countries?
- Based on available research, did the implementation of sugar tax in these countries curb obesity in their citizens?
- What do the proposed sugar tax regulations in South Africa entail?

Considering the success or failure of sugar tax in other countries in curbing obesity, is sugar tax likely to succeed in its objective of curbing obesity in South Africa?

Which alternative methods should rather be considered to curb obesity in South Africa?

Importance and relevance of the research

The proposal for the implementation of sugar tax by the South African Minister of Finance, Pravin Gordhan, brought about much criticism; with many purporting it will not be effective in curbing obesity. The Beverage Association of South Africa indicated that its goal of curbing 'excessive sugar intake' had failed overseas (Isaacs, 2016:1). Another criticism was that the tax would be slightly regressive with low-income consumers paying more tax than high-income consumers as lower-income earners tend to consume sugar-loaded products (Chinyanga, 2016). Others have stated that South Africa was becoming a "Nanny State" with the introduction of yet another sin tax (Chinyanga, 2016:1). The Beverage Association of South Africa stated that sugar-sweetened beverages accounted for less than 10% of daily caloric intake and therefore the tax would not be effective in reducing sugar intake (Appasamy, 2016).

Joe Maila, spokesman to the South African Minister of Health, Aaron Motsoaledi, stated that sound evidence exists demonstrating that price significant influences consumers' demand for products. Research completed by the South African Department of Health and the Centre for Diabetes demonstrated that sugar tax is the most effective method to combat obesity (Appasamy, 2016).

Karen Hofman, professor in Public Health at the University of Witwatersrand stated that, not only had research proven that sugar tax will curb obesity in South Africa, but that the tax will also encourage South African citizens to reconsider their sugar intake and will cause them to make healthier food choices (Mapumolo, 2016:1).

Research methodology

A literature review was performed to ascertain whether, based on international experience and findings, sugar tax was likely to curb obesity in South Africa. Various electronic articles as well as published local and international journal articles were used to provide evidence in this regard.

Scope and Limitations

Scope of research report

The scope of the research report was limited to analyses of the following countries i.e. United Kingdom, Mexico, United States of America, Denmark and South Africa. The aforementioned countries were selected for inclusion in the research report for the following reasons:

Firstly, sugar tax is considered to be most effective in countries with a high prevalence of obesity and high soft drink consumption by the general population (Jou & Techakehakij, 2012).

The United States of America, United Kingdom, Mexico and South Africa have amongst the highest rates of obesity in the world. This is evident from the following:

In the United States 40.4% of women are obese, with Mexico at 37.5% of and the United Kingdom at 26.8%. This is comparable with the 39.2% of South African women who are obese (World Obesity Federation, 2012).

Significant soft drink consumption is further noted in the United States of America, United Kingdom, Mexico and South Africa (Jou & Techakehakij, 2012; National Treasury, 2016:7). In the United States, citizens consume approximately 203 000 calories per day attributable to soft drinks. In Mexico, an average of 120 000 calories attributable to soft drinks are consumed daily. In the United Kingdom women consume 63 grams of sugar per day; men consume 22 grams of sugar daily. This is only in respect of sugar-sweetened beverage (Jou & Techakehakij, 2012). South Africans consume approximately 184 millilitres of sugar-sweetened beverages per day (Manyema *et al*., 2014: 4). On average, 35 grams of sugar are contained in a 330 millilitre can of coke (National Treasury, 2016:3). According to the World Health Organisation the daily normal intake of sugar should be 25 grams (Jaslow, 2014).

Secondly, the per capita consumption of sugar-sweetened soft drinks in South Africa has increased from 39 litres per annum in 2011 to 48 litres per annum in 2016 and it is expected to continue to grow (Business Monitor International, 2012).

South Africa should thus study countries with similar obesity and soft drink consumption trends to identify the most effective methods to curb obesity; albeit it is sugar tax.

Finally, Denmark implemented a tax on soft drinks during the 1930's, but it was abolished in 2014 (EU Food Law, 2013). The reasons as to why this long standing tax law was abolished is considered to be relevant to the research and will be considered in determining the efficacy of sugar tax in curbing obesity in citizens. Denmark is thus included in the research report; albeit the country does not have a high obesity rate or a rate of soft drink consumption.

Limitations of the research report

The scope of the research was limited to the following countries i.e. United States of America, United Kingdom, Denmark, Mexico and South Africa.

Sugar tax has not yet become effective in South Africa; it is thus difficult to estimate the true impact and outcome of the tax. Further, no clinical research regarding the impact of sugar tax on obesity in South Africa is available at present.

THE RELATIONSHIP BETWEEN SUGAR TAX AND OBESITY

Introduction

Sugar is not only present in its natural form in many food stuffs; many soft drinks, juices, canned foods, sauces, cereals and others contain added sugar (Khanna, 2016:1). Such added sugar is typically refined sugar i.e. natural cane sugar of which the fibre is removed (Chinyanga, 2016). Many of these foods also contain added sugar in the form of fructose corn syrup that is considered to be more harmful than refined sugar (Khanna, 2016:1).

The consumption of soft drinks accounts for approximately 10.3% of the daily caloric intake (Teagle, 2016). The World Health Organization recommended that added sugar should not exceed 5% of the daily calorie intake (Teagle, 2016).

According to the Harvard School of Public Health every can of soft drink contains approximately 10 teaspoons of sugar (Chinyanga, 2016). Modern lifestyle has caused a shift to fast food consumption with increased portion sizes and an unprecedented increase in the consumption of soft drinks. South Africa ranks within the top 10 consumers of sugar-sweetened beverages worldwide (Child, 2014).

The correlation between sugar intake and obesity

Sugar-sweetened beverages do not provide the feeling of 'fullness' associated with food and are typically consumed as an addition to a meal; resulting in the consumption of more calories than had one just consumed the food alone (National Treasury, 2016:6).

Sugar, not utilised for energy, is converted in the liver into fatty acids that are stored as excess fat. The body also produces an insulin hormone in order to lower blood glucose levels; yet when the blood glucose level drops significantly, one craves and consume sugar again to compensate for it (Hand, 2009). Furthermore, according to a registered dietician, Judith Johnson, where the cells of the body become resistant to the insulin, any sugar intake may be harmful (Health24, 2016).

The harmful effects of increased sugar intake and obesity

The harmful effects of sugar have been the subject of much scrutiny in the last few years. It has been established that sugar is not merely empty calories; it has harmful effects much worse than initially thought (Khanna, 2016:2).

As indicated above, a diet high in sugar contributes to obesity. Obesity is a cause of many lifestyle diseases including hypertension, ischaemic heart disease, cerebrovascular events and diabetes mellitus (Manyema *et al*., 2014:1). Diabetes mellitus may lead to amputations, blindness and kidney failure (Mapumolo, 2016). The risk of disease increases directly with an increase in weight (Mapumolo, 2016). According to the World Health Organisation these diseases account for 2.8 million deaths annually (Manyema *et al*., 2014:1). In South Africa, approximately 2 million South Africans have been diagnosed with types 1 and 2 diabetes mellitus (Mapumolo, 2016). Type 2 diabetes is linked directly to obesity (Mapumolo, 2016). It is estimated that 5 million more people in South Africa are living with the disease without diagnosis (Mapumolo, 2016).

Obesity increases health care costs, mortality rates and sick days in South Africa (Chinyanga, 2016). It reduces productivity and lessens a quality of life (Chinyanga, 2016). Many obese children are tormented about their weight resulting increased absenteeism from school, low self-esteem, depression and social isolation (Telegraph, 2016).

Obesity rates in South Africa

Various studies have been performed in respect of obesity rates in South Africa. In a study published by Lancet, South Africa was identified as the country with the highest overweight rate in sub-Saharan Africa. It was found that 7 out of 10 women and 4 out of 10 men were overweight (Chinyanga, 2016). Similar statistics were demonstrated in a study by the University of Washington's Institute for Health Metrics and Evaluation (Health24, 2016).

A study performed by the pharmaceutical company GlaxoSmithKline, indicated that South Africa was the third most obese nation worldwide.

It was found that 61% of South Africans were overweight or obese; the global rate was just under 30% (Chinyanga, 2016). The shift towards fast food consumption has caused South Africans to not only be obese but malnourished as well (Teagle, 2016).

Research by Karen Hofman, professor in Public Health at the University of the Witwatersrand revealed that the South African economy lost R29 billion between 2009 and 2015 due to diseases caused by obesity. Obese workers cost their employers 49% more than non-obese workers in the form of paid leave (Mapumolo, 2016). Obesity caused an increase in health care costs in South Africa, of between 11% and 23%, depending on the severity of the obesity or comorbid disease. (Manyema *et al*., 2014: 1-2)

Conclusion

Excessive sugar intake has been proven to cause obesity. Following an increase in the consumption of fast foods and soft drinks by its citizens, South Africa has become one of the most obese countries worldwide. Consequently, an increase in lifestyle diseases as well as an increase in public health costs were noted.

INTERNATIONAL FINDINGS IN RESPECT OF SUGAR TAX

Introduction

Many countries have already implemented a sugar tax and many more are considering its implementation (World Cancer Research Fund International, 2016:1-6).

The following countries have already implemented a form of a sugar tax:

Barbados implemented a 10% sugar tax from 1 August 2015 on sugary drinks. The revenue realised from this tax will be utilised within the health care sector (World Cancer Research Fund International, 2016:1). Belgium increased its health tax by €0.03; resulting in a tax of €0.068 per litre of soft drinks from 1 January 2016. This tax applies to all sugar-sweetened beverages. Furthermore, any substance utilised in the soft drink manufacturing process is also taxed at €0.41 per litre if liquid and €0.68 per 100 kilograms if powder (World Cancer Research Fund International, 2016:1). Chile increased its tax on sugar drinks, with a sugar content greater than 6.25 grams of sugar per 100 millilitres, from 13% to 18%; effective from January 2015. Soft drinks with a sugar content less than 6.25 grams per 100 millilitres are taxed at 10% (World Cancer Research Fund International, 2016:2). The Dominican Republic implemented 10% sugar tax on all food and drinks with a high sugar content from 1 September 2015. Foods with a high sugar content include *inter alia* chocolate and sweets (World Cancer Research Fund International, 2016:2). Finland had a tax on candy and non-alcoholic beverages. This tax will be scrapped with effect from 1 January 2017 (World Cancer Research Fund International, 2016:2). It was implemented in 2011. The reason for its removal is that not all sugary products fell within the tax net and thus some products became more expensive to produce (Hofverberg, 2015).

France implemented a soda tax from January 2013 at €0.11 per 1.5 litre of soda (World Cancer Research Fund International, 2016:2). French Polynesia implemented a tax on sugary foods and drinks in 2003 (World Cancer Research Fund International, 2016:2). Hungary has a health tax on food and drink high in salt, sugar and caffeine content at varying rates. Soft drinks are taxed at $0.24 per litre. Other drinks that contain sugar are taxed at $0.47 per litre (World Cancer Research Fund International, 2016:3). Mauritius implemented a sugar tax on soft drinks in January 2013. It is MUR 0.3 per gram of sugar content (World Cancer Research Fund International, 2016:3). Samoa implemented a tax on soft drinks in 1984. The rate is 0.4 Samoan Tala per litre (World Cancer Research Fund International, 2016:3). St Helena introduced a tax on soft drinks on 27 May 2014. The rate is at £0.75 per litre (World Cancer Research Fund International, 2016:3) and Tonga implemented a tax on soft drinks at 1 Tonga Pa'anga per litre (World Cancer Research Fund International, 2016:4).

Countries included in research report for further study

Only the following countries will be analysed in this research report in respect of sugar tax i.e. United Kingdom, Mexico, United States of America, Denmark and South Africa.

United Kingdom

In the 2016 budget speech Chancellor George Osborne announced that the United Kingdom would levy a sugar tax on sugary drink manufacturers (Fisher, 2016). This comes in response to concerns regarding the increasing rate of obesity amongst children in the United Kingdom (Triggle, 2016). The tax amount levied will depend on the sugar content in the sugar-sweetened beverage (Triggle, 2016). The tax will only come into effect during 2018, thus providing soft drink manufacturers with an opportunity to reformulate their product recipes and sugar content (Fisher, 2016).

Beverages with a sugar content exceeding 5 grams per 100 millilitres will be taxed at a rate of £0.18 per litre (Triggle, 2016). Beverages with a sugar content exceeding 8 grams per 100 millilitres will carry a tax of £0.24 per litre. Examples of beverages with high sugar content include Coke® and Pepsi® whilst those with lower sugar content include Fanta® and Sprite®. Pure fruit juices and milk-based beverages will be exempt from sugar tax (Triggle, 2016).

According to Chancellor George Osborne this tax will raise an income of approximately £520 million per year. It will be utilised to fund sport in primary schools in England. Tax revenue raised in the rest of the United Kingdom will be spent according to the discretion of the 'devolved administrations' of Scotland, Wales and Northern Ireland (Triggle, 2016).

Arguments in favour of sugar tax in the United Kingdom

Those in support of the sugar tax have lauded the tiered system of levying the tax. Drinks with a sugar content of less than 5 grams per 100 millilitres will be exempt from sugar tax (Triggle, 2016). Those with a medium sugar content of between 5-8 grams per 100 millilitres will be charged £0.18 per litre and drinks with a sugar content exceeding 8 grams per 100 millilitres will be charged £0.24 (Triggle, 2016). This is believed to encourage consumers to select drinks with lower sugar content (Marron, 2016).

Manufacturers may opt to lower the sugar content of beverages and increase marketing of beverages with low sugar content (Marron, 2016).

Another favourable aspect of the sugar tax is that small producers will be exempt from this tax (Triggle, 2016).

Criticism against sugar tax in the United Kingdom

There has been much opposition to this tax with the following reasons being cited:

- Firstly, despite the tax being imposed on soft drink manufacturers, consumers will ultimately bear the burden as increased costs will be transferred onto them directly. The sugar tax will affect poor citizens most as a larger percentage of their earnings are spent on paying taxes (Quince, 2016);
- Secondly, the sugar tax will increase inflation. The British Government will have to pay £1 billion upfront in 2018 and 2019 due to the increased costs of borrowing as a result of inflation increases (Quince, 2016);
- Thirdly, milk-based drinks that will be exempt from sugar tax may contain more sugar than soft drinks. Other foods including *inter alia* sweets, chocolate and cereal that may have a high sugar content will not be taxed (Quince, 2016); and
- Finally, some people believe even more tiers are required for the tax to be effective in curbing sugar intake (Marron, 2016).

Mexico

Mexico implemented a sugar tax on sugar-sweetened beverages in response to the increased obesity rates (Guthrie & Esterl, 2016). Mexico has the highest per capita soda consumption worldwide (Guthrie & Esterl, 2016). During 2012, the average Mexican citizen consumed 163 litres of sugar-sweetened beverages (Pineda, 2016).

One 330 millilitres can of Coke® alone represents 7% of daily caloric intake (Coca-Cola). This is well in excess of the recommendation made by the World Health Organization namely that added sugar be limited to 5% of the daily calorie intake (Teagle, 2016). The aim of the sugar tax was to reduce soda consumption and lower burgeoning obesity rates (Guthrie & Esterl, 2016).

Mexico implemented the sugar tax in January 2014. The tax was imposed on all sugar-sweetened drinks; whether in the form of powder, syrup, flavour extract or actual sugar. This includes *inter alia* soda drinks, fruit juices, energy drinks and milk products. The tax is levied at a rate of 1 Mexican Peso per litre of sugar-sweetened beverage (Pineda, 2016).

The estimated revenue from the sugar tax was expected to equate £ 693 million (Pineda, 2016). The revenue, however, raised was a third more than estimated (Guthrie & Esterl, 2016). Regrettably, the revenue raised was not utilised to combat obesity. (Pineda, 2016)

Arguments in favour of sugar tax in Mexico

According to research published in the British Medical Journal the tax on sugar-sweetened beverages cut the sales of soft drinks by 12% in the first year (Colchero *et al*., 2016: 352). In poorer households the drop was even more significant with a drop in sales of 17% noted (Telegraph, 2016). Research performed across 53 cities in Mexico (including more than 6 200 households) demonstrated that the average person purchased 4.2 litres less sugar-sweetened beverages (Telegraph, 2016). Non-sugar sweetened beverages and bottled water gained popularity with an increase in sales of 4% during 2014 (Pineda, 2016). According to Tom Sanders, professor of Nutrition and Dietetics at King's College in London, Mexico is a poor country and therefore a sugar tax would have greater impact upon sugar-sweetened soft drink sales (Telegraph, 2016). It was estimated that the reduction in consumption would reduce obesity by 1%.

Dr Juan Rivera Dommarco, director of the Mexican Research Centre in Nutrition, noted that more than 400 000 cases of diabetes would be prevented by 2050 if the tax remained (World Health Organisation, 2016: 240).

Research demonstrated that consumers consumed less soda drinks following an educational campaign that linked diabetes mellitus to sugar-sweetened beverages (Guthrie & Esterl, 2016).

Criticism against sugar tax in Mexico

Soft drink manufacturers in Mexico claim that sugar-sweetened beverages form less than 10% of daily caloric intake and therefore the tax cannot be effective in curbing obesity (Guthrie & Esterl, 2016).

According to a study performed by the Beverage Marketing Corporation, the implementation of the sugar tax system resulted in the loss of 3 000 jobs in Mexico in the first quarter of 2014 (Guthrie & Esterl, 2016). It also demonstrated that the average daily caloric intake decreased by just 0.2% in Mexico (Guthrie & Esterl, 2016).

The National Institute of Public Health in Mexico is of the opinion that a higher levy is needed for the tax to be effective. Mexican Senator, Armando Rios Piter, considered doubling the tax rate to decrease the burgeoning health costs associated with increased morbidity due to soft drink consumption (Guthrie & Esterl, 2016).

United States of America

A tax on sugar-sweetened beverages was only implemented in two cities in the United States i.e. Berkeley and Philadelphia (Sanger-Katz, 2015, The Guardian, 2016).

Sugar tax in Berkeley came into effect in March 2015 at a rate of $0.01 per ounce of sugar-sweetened beverage (Sanger-Katz, 2015; Krugel *et al*., 2016: 4). The rate for syrups (used to sweeten drinks) was calculated taking into account the volume produced by the syrup (Ecology Center, 2016). The tax was imposed on drinks high in sugar content and low in nutrient content i.e. soda drinks, energy drinks, sugar-sweetened juices and syrups used to sweeten drinks. Pure fruit juices and drinks with milk as primary ingredient were exempt from the tax (Ecology Center, 2016). In contrast to taxing the beverage manufacturers, the tax was imposed on the companies distributing these beverages throughout Berkeley and was added to their license fee (Ecology Center, 2016).

Sugar tax on sugar-sweetened beverages became effective in Philadelphia on 16 June 2016. The tax was levied at a rate of $0.015 per ounce of sugar-sweetened beverage. The tax was estimated to raise revenue of $90 million in its first year.

Funds were to be utilised to fund pre-kindergarten facilities, community schools and recreation centres (The Guardian, 2016).

Arguments in favour of sugar tax in the United States

Berkeley community leaders advocated for a sugar tax, to combat the rise in diabetes mellitus amongst its citizens; particularly its children (Ecology Center, 2016; World Health Organisation, 2016). It was found that 40% of grade 9 students in Berkeley were overweight (Ecology Center, 2016). It was estimated that 2 in 3 Californian teenagers consumed a sugary drink each day (Ecology Center, 2016). These drinks were considered to be the primary source of sugar in American diets (Ecology Center, 2016). It was noted that the sugar contained in soft drinks increased the risk of developing type 2 diabetes mellitus more than the sugar present in food (Ecology Center, 2016).

A panel of health experts were established to advice the Berkeley City Council how to best apply the tax revenue raised in order to promote a healthy lifestyle amongst children and reduce sugar intake (Ecology Center, 2016). As at March 2016, $1.5 million was raised from the sugar tax (Ecology Center, 2016). It was utilised to establish school gardening programmes (Ecology Center, 2016).

It was agreed that the objective of the sugar tax i.e. to promote the health of Berkeley citizens was achieved. Implementation of the tax further raised awareness about the direct relationship between sugar intake, obesity, diabetes mellitus and other comorbid diseases. Tax revenue raised will continue to be utilised in programmes to promote health and reduce the consumption of sugar-sweetened beverages (Ecology Center, 2016).

Research performed by the Public Health Institute in Oakland and the University of North Carolina demonstrated that the tax was passed onto consumers by supermarkets and small businesses. This was a significant step in reducing consumption that could lead to a reduction in obesity and related comorbid diseases such as diabetes mellitus. (Lochner, 2015)

The improvement of public health in Philadelphia where more than 68% of adults were overweight was regarded as an added benefit of the tax (The Guardian, 2016).

Arguments against sugar tax in the United States

Many reports have demonstrated that this tax has in fact failed to reduce consumption. People in Berkeley already travel extensively to purchase groceries; thus the risk of cross-border shopping (and seemingly reduced local consumption) is high (Sanger-Katz, 2015; Krugel *et al*., 2016:4).

The prices of sugar-sweetened beverages did not increase as significantly as those in other countries; therefore, there would not be as high a reduction in consumption rates nor as large an improvement in health (Sanger-Katz, 2015; Krugel et al., 2016:4). Less than half of the tax was passed onto consumers (Crawley & Frisvold, 2015). It was estimated that only 22% of the tax was passed onto consumers of Pepsi® and Coke® (Boscia, 2015).

Denmark

Denmark abolished its sugar-sweetened beverage tax on 1 January 2014; a tax that had been effective since the 1930's (UNESDA, 2013). It was a gradual abolishment: First a 50% reduction in July 2013 and then a complete abolishment from January 2014 (UNESDA, 2013). This was in a bid to increase employment and growth within Denmark (UNESDA, 2013). In 2013, the tax was imposed at a rate of €0.22 per litre (The Spectator, 2016). Despite it grossing €60 million in tax revenue each year, €38.9 million in VAT was conceded due to the purchase of illegal soft drinks (The Spectator, 2016).

Arguments in favour of sugar tax in Denmark

The sugar tax raised tax revenue of €60 million per year. The tax was implemented with the objective of reducing sugar intake. At the time of abolishment, 7% of Danes had reduced their sugar intake (The Spectator, 2016).

Criticism against sugar tax in Denmark

There were several reasons for the abolishment of the tax. It was purported that the negative consequences outweighed the benefits. One reason was the regressive nature of the tax. Another was the impact of cross-border shopping on employment in the regions near borders. It was estimated that 5 000 jobs were lost due to it. Cross-border shopping also affected the environment adversely (UNESDA, 2013).
Denmark also scrapped a fat tax that was in place for a year. The tax was initially implemented in a bid to improve the health of Danish citizens (EU Food law, 2013). This tax was levied at a rate of £1.78 on any food containing more than 2.3% saturated fat (Snowdon, 2015; The Spectator, 2016).

The criticism against it was the same as for sugar-sweetened beverage tax i.e. cross-border shopping adversely affecting employment (Snowdon, 2015). It inflated food prices, raising the cost of living (Snowdon, 2015; EU Food law, 2013). Some citizens merely continued to purchase fatty food opting for cheaper brands; defeating the purpose of improving health (Snowdon, 2015). A minimal decrease in obesity was noted (Snowdon, 2015). Only 7% of Danes reduced their intake of fatty foods (The Spectator, 2016).

Conclusion

A sugar tax was implemented in many countries in a bid to curb obesity. Research has shown that the effect of a sugar tax on obesity rates has been minimal and will need to be coupled with alternative methods to be effective.

The implementation of sugar tax has further brought many negative consequences: increased unemployment, rates of inflation and cross-border shopping.

SUGAR TAX IN SOUTH AFRICA

Background

On 8 July 2016, the South African National Treasury released a policy paper regarding the taxation of sugar-sweetened beverages in South Africa. This followed the announcement by Minister of Finance, Pravin Gordhan, that a tax on sugar-sweetened beverages would come into effect from 1 April 2017 in order to curb growing obesity rates due to excess sugar intake. (National Treasury, 2016:1-2)

Obesity is the primary cause of various non-communicable diseases including *inter alia* diabetes mellitus and cardiovascular disease. As part of the

Strategic Plan for the Prevention and Control of Non-communicable Diseases (2013 – 2017) and the National Strategy for the Prevention and Control of Obesity (2015- 2020), the Department of Health undertook to reduce obesity by 10% by 2020. The imposition of a sugar tax was to facilitate the realisation of this objective. (National Treasury, 2016:2)

The sugar-sweetened beverage market in South Africa has grown rapidly in the last 20 years (National Treasury, 2016:7). This has been due to an increase in the 'affordability, availability and acceptability' of sugar-sweetened beverages (National Treasury, 2016:7). Soft drinks are regarded as the most popular drink consumed by children in urban areas (National Treasury, 2016:7). As this may become a habit, many children may continue to consume soft drinks regularly as they grow older (National Treasury, 2016:7).

Statistics provided by Coca-Cola South Africa indicated that the average person consumed 67 litres of Coke® in one year (Manyema *et al*., 2015). A further study demonstrated that South Africans consume approximately 184 millilitres of sugar-sweetened beverages each day (Manyema *et al*., 2015.

This may lead to obesity later in life; potentially causing diabetes mellitus and other non-communicable diseases (National Treasury, 2016:7). More citizens will thus be dependent on the public health care system. This is a cost that can easily be prevented (National Treasury, 2016:7).

In addition to the non-communicable diseases caused by obesity, tooth decay was another primary concern due to the consumption of sugar-sweetened beverages. According to a report from a National Children's Oral Health Survey the prevalence of dental caries for children aged 4-6 years old was between 50% – 60% (National Treasury, 2016:5).

Sugar tax was perceived to be the most cost effective means in achieving the goal of curbing obesity. The expected *per person* cost of imposing a sugar tax was R0.20. This was the cheapest option compared to the cost of implementing the following strategies: food advertising regulation (R0.90 per person), food labelling (R2.50 per person), worksite interventions (R4.50 per person), and mass media campaigns (R7.50 per person), school-based interventions (R11.10 per person) and physician counselling (R11.80 per person) (National Treasury, 2016: 8).

The World Health Organisation encouraged its members to implement taxes in order to reduce sugar consumption and encourage citizens to make healthier food choices. This was part of its 2013 Global Action Plan. The World Health Organisation requested that Member States develop policies to encourage the reduction of sugars added to food and beverages. (National Treasury, 2016:5)

Target

Soft drinks are being targeted (not sugar-sweetened foods) due to the low nutritional value. Sugar sweetened beverages do not provide the feeling of 'fullness' that food does and are generally an addition to a meal, resulting in the consumption of extra calories than had one had just consumed the food alone. These extra calories, if not converted to energy, will be stored as fatty tissue, contributing to rising obesity rates (National Treasury, 2016:6).

The sugar sweetened beverages to be taxed are any beverages that contain 'added caloric sweeteners'. Examples of these include soft drinks, energy drinks, ice tea, vitamin water and lemonade. Beverages such as pure fruit juices and unsweetened milk products that have no added sugar will be exempt from the tax. (National Treasury, 2016:16)

Rate

The rate of tax that was proposed was R0.0229 per gram of sugar in sugar-sweetened beverages (National Treasury, 2016:3). This proposed rate was based on a 20% tax on South Africa's most popular soft drink, Coca-Cola® (National Treasury, 2016:3). Coca-Cola® has an average of 35 grams of sugar in a 330 millilitre can (National Treasury, 2016:3). Studies demonstrated that a rate of 20% would be most effective in curbing obesity (Manyema *et al*., 2015: 1; National Treasury, 2016). The grams of sugar would be based on the 'current product labelling framework' (National Treasury, 2016:3). If a sugar-sweetened beverage does not have a nutritional label, the assumed volume of sugar is 50 grams per 330 millilitres (National Treasury, 2016:3). This is a bid to encourage nutritional labelling. A legislative framework for nutritional labelling is expected to be introduced in the near future (National Treasury, 2016:3).

A specific rate (cents per gram) has been chosen for the sugar tax rather than an *ad valorem* rate (percentage of volume). This means that the rate that has been selected will need to be regularly adjusted in order to take into account inflation (National Treasury, 2016:14)

A study demonstrated that 20% tax on sugar-sweetened beverages would reduce obesity in adults by 2.4% potentially. This was based on a mathematical model comparable with international studies. It was estimated that a 20% tax in India would reduce obesity by 3% whilst a 20% tax rate in the United Kingdom was expected to reduce obesity by 1.3% (Manyema *et al*., 2014:5).

An adjustment to the proposal was released in 2017. A threshold was created of 4 grams per 100 millilitres of sugar sweetened beverages (National Treasury, 2017: 1). Therefore, only sugar sweetened beverages in excess of that amount of sugar will be subject to sugar tax (National Treasury, 2017: 1). The proposed rate will also decrease to R0.0221 per gram of sugar in sugar-sweetened beverages (National Treasury, 2017: 1). This proposed decrease is said to reduce the negative impact on jobs (National Treasury, 2017: 2). In addition, milk products will also be fully exempt from sugar tax (National Treasury, 2017: 1)

Implementation of sugar tax

The proposed sugar tax will be put into legislation through the Customs and Excise Duty Act No. 91 of 1964 (National Treasury, 2016:20). For purposes of simplicity and to minimize costs, the general excise administration principle (duty-at-source) will be applied in respect of the sugar tax (National Treasury, 2016:3). Therefore, producers and importers of the sugar-sweetened beverages will be required pay over the sugar tax to the South African Revenue Service (National Treasury, 2016:15). This will be 'collected at the factory gates or at the ports of entry' (National Treasury, 2016:20). If producers thus decide to reformulate products in order to reduce their tax liability, the goal of the sugar tax, i.e. to reduce sugar consumption, will be met (National Treasury, 2016:15-16).

Arguments in favour of sugar tax in South Africa

The use of sugar tax to curb obesity and promote a healthy lifestyle is based on 'standard economic theory' (National Treasury, 2016:9). This theory states that a change in price affects the demand for a product (National Treasury, 2016:9). If healthier food and beverage options are cheaper than their unhealthier counterparts, demand for the healthier option will rise (National Treasury, 2016:9). The amount by which demand is affected depends on the price elasticity of demand. The price elasticity of sugar-sweetened beverages in South Africa is estimated to be – 1.299 (National Treasury, 2016:10). This means that a tax rate of between 10% and 20% may result in a change in demand from sugar-sweetened beverages to healthier alternatives and thereby curbing obesity (National Treasury, 2016:10). Subsidising fruit and vegetables in addition to raising taxes may further assist in promoting healthier food options and curbing obesity (National Treasury, 2016:9).

National Treasury addressed the criticism of the tax being one that is regressive in nature (affecting the poor more than the rich) by stating that the benefits of a reduction in consumption of sugar-sweetened beverages will minimize this negative aspect. Poorer communities are more affected by obesity and thus will benefit most. Poorer communities are more dependent on the public health care system and it is hoped that this tax will reduce health care costs in the future (National Treasury, 2016:10). South Africa already spends more on health care than recommended by the World Health Organisation (Appasamy, 2016). The World Health Organisation recommends that 5% of GDP be spent on health care whilst South Africa at present spends 8.9% (Appasamy, 2016). This is bound to increase should South African citizens' sugar intake not be kept under control.

Criticism against sugar tax in South Africa

The Beverage Association of South Africa stated that sugar-sweetened beverages accounted for less than 10% of daily caloric intake and therefore the tax would not be effective in reducing sugar intake (Appasamy, 2016). They have also stated that the goal of curbing 'excessive sugar intake' had failed overseas (Isaacs, 2016:1). In a submission to Treasury, the Beverage Association of South Africa claimed that between 62 000 and 72 000 jobs would be lost due to the implementation of a sugar tax in South Africa (Check, 2016).

Conclusion

National Treasury proposed the implementation of a sugar tax on sugar-sweetened beverages in a bid to curb obesity and decrease public health care costs (tax effective from 1 April 2017). The rate of tax being proposed was R0.0229 per gram of sugar in sugar-sweetened beverages. Producers and importers would be required to pay the tax over to the South African Revenue Service but as this cost will be transferred onto consumers, the consumer will bear the ultimate burden. There has been widespread criticism of the tax citing a potential increase in unemployment rates and the proven ineffectiveness of curbing obesity abroad.

CONCLUSION AND RECOMMENDATIONS

Evidence from various countries proves that sugar tax, on its own, is ineffective in curbing obesity:

Firstly, in the United Kingdom it is was decided that a multi-tier tax was required (not merely a single rate sugar tax) for the tax to be effective in curbing sugar intake and obesity (Triggle, 2016);

Secondly, in Mexico it was evident that only a small portion of daily caloric intake was attributable to sugar-sweetened beverages; thus the mere implementation of a sugar tax may be ineffective in decreasing sugar intake and obesity at large as only a small proportion of daily caloric intake is attributable to sugar-sweetened beverages (Guthrie & Esterl, 2016);

Thirdly, in Berkeley and Philadelphia it was noted that consumers were not affected by price increases due to sugar tax due to the option of cross-border shopping (Sanger-Katz, 2015). Sugar tax without action to prevent the illegal sale of sugar-sweetened soft drinks is ineffective (Sanger-Katz, 2015); and

Finally, in Denmark is was noted that the fat tax was ineffective in curbing obesity with only a minimal rate reduction noted; nor was there any indication that the sugar-sweetened soft drink tax in place since the 1930s effectively kept obesity at bay (Snowdon, 2015).

From the above it is evident that sugar tax on its own in many countries failed to curb obesity rates. It thus appears unlikely that the implementation of sugar tax on its own in South Africa will have a different outcome.

Another concern regarding sugar tax is the consequent loss of jobs. This is especially a problem in South Africa where unemployment rates are significant. 3 000 jobs were lost in Mexico in the first quarter in 2014 (Guthrie & Esterl, 2016). 5 000 jobs were lost in Denmark during the period in which sugar tax was effective (UNESDA, 2013). The main reason stated for its scrapping in Denmark was to create employment and promote economic growth (UNESDA, 2013).

There is also a risk that cheaper sugar-sweetened soft drink alternatives would be manufactured; meaning that soft drink consumption would not decrease and obesity rates would continue to increase.

The South African National Treasury failed to address these issues. National Treasury also did not indicate how the tax revenue generated from the sugar tax would be used.

Recommendations to support sugar tax in reaching its objective of curbing obesity include the following:

Firstly, educating communities on the adverse effects of obesity and the manner in which healthier lifestyles may be obtained. Education material i.e. 'The Sugar Film' demonstrating the harmful effects of sugar should be screened on various television channels in the country (Health24, 2016a);

Secondly, the broadcast of thought-provoking campaigns (advertisements) demonstrating the negative effects of obesity and excessive sugar consumption;

Thirdly, labels on soft drinks that indicate that the beverage is more expensive due to sugar tax. Manufacturers should further be required to indicate the adverse effects of sugar on label with the sugar content in bold print;

Fourth, regulating sugar-sweetened soft drink marketing as is done with alcoholic beverages;

Fifth, drinking of water as a healthier alternative should be encouraged through education as well as by ensuring that all South Africans have access to clean water;

Sixth, healthier food options including fruit and vegetables should be subsidised in order to encourage healthy eating patterns. Vegetable gardens should be cultivated in the poorer communities in South Africa

Finally, exercise programmes should be promoted and school sport funded. Sporting facilities, infrastructure and teams should be developed.

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TAX008 **The challenges faced by developing countries regarding transfer pricing**

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ABSTRACT:

This research report aims to highlight the challenges which developing countries face regarding transfer pricing as well as the steps that these developing countries can take in order to address these challenges.

The growth of multinational enterprises has led to much-needed economic growth in developing countries, resulting in job creation, reduction of poverty and a decline in government expenditure and therefore a decline in government debt resulting in much more wealthier countries. The growth of multinational enterprises has also resulted in the growth of intercompany transactions as well as cross border transactions. The growth of cross border transactions has led to an erosion of the tax base from the countries which need the taxes revenues the most, such as developing countries. The erosion of the tax base in developing countries has led to increasing regulations regarding transfer pricing. The regulation of transfer prices may lead to a loss of foreign direct investment which developing countries need, therefore resulting in a trade-off for these developing countries.

The research method adopted for this research report is of a qualitative, interpretive nature and is based on a detailed interpretation and analysis of various sources including an extensive literature review.

This research report finds that even though developing countries face numerous challenges with regards to transfer pricing, these countries have progressed in terms of their transfer pricing legislation and regulations as these regulations are in line with OECD recommendations.

Key words: Transfer pricing, developing countries, multinational enterprises (MNEs), foreign direct investment (FDI), BRICS

INTRODUCTION

Globalisation has contributed significantly to the increase in foreign direct investment into developing countries (Worasinchai and Bechina 2010:171). Multinational enterprises (MNEs) have contributed to economic growth and welfare in developing countries through job creation and increased buying power by local citizens, leading to increased tax revenue, increased exports, improved infrastructure and significant technological advancements (Worasinchai and Bechina 2010:172).

Transfer pricing is part of MNE operations and it cannot be said that all transfer pricing activities are tax avoidance activities. In this research report 'transfer price' is used to mean:

> a price adopted for bookkeeping purposes which is used to value transactions between affiliated enterprises integrated under the same management at artificially high or low levels in order to effect an unspecified income payment or capital transfer (OECD 2007:801).

A closer evaluation of transfer pricing still needs to be made, regardless of the fact that transfer pricing is incidental to MNEs operations, because of the abuse of transfer pricing over the past number of years. MNEs can distort transfer prices in order to ensure that profits are reflected in specific jurisdictions resulting in the erosion of the tax base of the countries from which the profit has been shifted. Transfer mispricing reduces a country's tax revenue resulting in a decline of much-needed economic growth for developing countries (Jantjies 2015:20).

Ideally, developing countries would like to protect their tax bases while still ensuring that foreign direct investments into these countries are not adversely affected (Silberztein 2010). The increased popularity of the use of complex structures by MNEs to avoid tax in certain jurisdictions by using transfer pricing has led to losses in tax revenues of those under-resourced countries and that has resulted in economic challenges for resource-constrained developing countries.

Research Problem

The aim of this research report is to address the following research problem:

What steps can developing countries take in order to address the challenges of transfer pricing without impeding foreign direct investments and how is South Africa addressing transfer pricing?

In addressing the above-mentioned problem the report will address the following sub-problems:

- What are the difficulties faced by developing countries when designing tax policies that take into account global trade and the growth of MNEs?
- What structures are used by MNEs to shift profits into low or no tax jurisdictions?
- How can developing countries address their unique transfer pricing difficulties?
- What steps have developing countries taken in addressing base erosion and profit shifting and are these in line with the recommendations made by the Organisation for Economic Co-operation and Development (OECD) and/or the United Nations (UN)?
- Is South Africa's transfer pricing regime adequate?

Importance

Transfer pricing by MNEs in developing countries presents itself with challenges for the country. The developing country needs to strike a balance between maintaining its competitive advantage as well as ensuring wealth remains within the country to generate the tax revenue needed for further economic growth. (Jantjies 2015: 18)

Developing countries face administrative challenges when mitigating tax avoidance schemes that MNEs may be entering into. Another administrative burden is the difficulty faced by some governments in obtaining relevant information from MNEs due to the inability to determine what information is relevant. (Lohse, Riedel and Spengel 2012:6)

The Organisation for Economic Co-operation and Development (OECD) provides guidelines on how countries should deal with transfer pricing and the type of tax laws that should be in place to regulate transfer pricing (Baxter 2015). The OECD guidelines only apply to OECD member countries, which are mostly developed countries. However, other developing countries have adopted the application of these guidelines such as the BRICS countries (Silberztein 2010). The United Nations has developed a manual for transfer pricing for developing countries (Baxter 2015).

South Africa has developed extensive legislation to address transfer mispricing and tax abuse behaviour. However, limited resources of the South African Revenue Service's transfer pricing department may limit the effectiveness of the legislation (Hattingh 2015:9).

Research Methodology

The research method adopted is of a qualitative, interpretive nature, based on an extensive literature review and an analysis will be undertaken in order to determine the challenges that developing countries face as well as the advancements they have made with regards to transfer pricing legislation and regulation in comparison to OECD and UN recommendations on transfer pricing.

Scope and Limitations

The research report will focus specifically on transfer pricing in developing countries from an income tax point of view. The developing countries that will be considered are the BRICS countries (with particular focus on South Africa) due to the similar economic challenges they face such as unemployment, lack of skills and other resources as well as the common economic objectives they share (Vijaykumar, Sridharan and Rao 2010:2). Russia, India, China and South Africa have adopted some of the OECD guidelines on transfer pricing and base erosion and profit shifting (OECD 2014).

THE IMPORTANCE FOR DEVELOPING COUNTRIES TO REGULATE TRANSFER PRICING

Transfer pricing is inherently subjective because of the reliance on facts and circumstances, a focus on substance over form and the use of price ranges. The subjective nature of transfer pricing requires transfer pricing to be regulated. Transfer pricing is one of the most complex and technical topics in taxation. Transfer pricing requires both technical skills and sectoral expertise both of which require training and resources in developing countries. A benefit to the implementation of transfer pricing regulations is a strengthening of the way in which revenue administration treats large taxpayers. (Stern 2013:4)

The impact of growth in the number of MNEs on transfer pricing

Intercompany transactions may allow MNEs to shift income from one jurisdiction to another; usually from a high tax jurisdiction to a low tax jurisdiction. The shifting of income by MNEs between jurisdictions may result in lost tax revenues for some governments. Governments are introducing and extending transfer pricing regulations in order to reduce profit shifting through intercompany transactions (Lohse, Riedel and Spengel 2012:1). The growth of related party transactions has led to the development and expansion of transfer pricing regimes in developing countries becoming a priority (Curtis and Todorova 2012:5). Developing economies are increasingly becoming aware of the importance of introducing "robust" legislative and administrative framework to deal with transfer pricing issues (Curtis and Todorova 2012:5).

An unregulated transfer pricing regime could enable companies to transfer funds between jurisdictions and misprice these transfers in order to obtain a tax benefit. (Baxter 2015)

This section will explore the need and benefits for developing countries to regulate transfer pricing.

Transfer pricing was previously seen as an issue for developed countries but it has recently arisen as a concern for an increasing number of developing countries. The 2008 financial crisis forced ministers of finance and revenue authorities to rethink where their sources of tax revenue came from. (Stern 2013:1)

The importance of regulating transfer pricing

According to tax authorities across the world, not having a transfer pricing framework leads to an ad hoc treatment of multinational cross border transactions where tax revenue is foregone. Similarly, for MNEs the uncertainty with regards to the treatment of multinational cross border transactions could be seen as a barrier to investment into a country. For developing countries in particular, transfer pricing in is not only an instrument for the generation of revenue but it is also a pillar for the investment climate. Globalisation and rapid growth of cross border investments have forced developing countries to protect domestic tax revenues and to provide certainty by implementing transfer pricing frameworks even though these developing countries have little resources or capacity to implement the transfer pricing frameworks. (Stern 2013:1, 2)

MNEs manipulate prices of intercompany transactions resulting in profits being shifted to other tax jurisdictions resulting in tax revenue losses for one country. The primary objective for developing countries should be to adopt transfer pricing policies that will better enable them to prevent potential losses in tax revenue as a result of transfer pricing manipulation by MNEs. The prevention of tax losses by developing countries is of significant importance as the OECD estimates that between 30 percent and 60 percent of global trade is within MNE groups. (Stern 2013:3)

Many developing countries do not have large treaty networks because they have not implemented administrative procedures for taxpayers to access treaty protections leaving investors to bear the risk of potential double tax. The risk of double taxation decreases the attractiveness of the developing country as an investment location. A transfer pricing framework is important to ensure current and potential investors have clear and certain rules on compliance requirements, interest penalties and transfer pricing methodologies that are considered acceptable according to international standards. A clear transfer pricing framework is needed to allow businesses to properly assess the accounting and tax risk associated with actual and potential investments. In developing transfer pricing frameworks, developing countries need to ensure that the costs of compliance are kept at an appropriate level. Developing countries should have a clearly defined transfer pricing framework that matches the level of sophistication of their commercial activities to ensure that scarce resources are put to proper use. (Stern 2013:3)

Transfer pricing enforcement benefits from bilateral tax information exchanges but developing countries are still lagging behind most developed countries on the exchange of information. Regulating transfer pricing can assist developing countries in accessing information on taxpayers such as MNEs. (Stern 2013:4)

Transfer pricing compliance requirements represents a large portion of overall tax compliance costs. To minimise unnecessary compliance costs, documentation requirements should be appropriately tailored to suit the capacity and level of the assessed transfer pricing risk and should not differ from common practices. Minimising compliance costs is critical for developing countries as it will minimise deterrents to much needed foreign investment. (Stern 2013:5)

Transfer pricing legislation may assist in dealing with transfer pricing risks, but many developing countries do not have specific transfer pricing rules and those that do may need to strengthen their transfer pricing rules (OECD 2012:70). An adequate legal framework does not necessarily mean the legislation will be applied effectively and correctly (Stern 2013:3). It is critical for developing countries to be able to effectively identify high risk cases of transfer pricing to ensure that their limited resources are used effectively (OECD 2012:71). Many developing countries have inadequate or no transfer pricing enforcements and therefore these countries are probably not collecting their side of tax revenue from related party transactions (Stern 2013:3). Greater transfer pricing enforcements by developing countries is likely to result in a gradual increase in tax revenue collected by these developing countries (Stern 2013:3).

THE CHALLENGES FACED BY DEVELOPING COUNTRIES

MNEs contribute to the economic growth of countries through infrastructure development, innovation and job creation. In contrast to the contribution that MNEs make with respect to economic growth, some MNEs are responsible for shifting tax revenues from countries which need these revenues the most for further economic growth and poverty eradication (Mc Nair, Dotley and Cobham 2010:1-2). For this reason, developing countries need to develop effective transfer pricing legislation and regulation, however, developing countries face a number of challenges that they must overcome in order to do so.

This section will consider the challenges faced by developing countries in general regarding transfer pricing and a brief analysis will be made with regards to transfer pricing challenges faced by the BRICS countries. Some of the challenges that will be discussed in this section are:

- The resources and capacity which developing countries have to effectively administer transfer pricing. (Lohse, Riedel and Spengel 2012:6).
- The access or availability of comparable data that developing countries can use to regulate transfer pricing schemes which constitute tax avoidance schemes. (Deloitte 2015:198)

- The power imbalances between MNEs and developing countries in which they operate.

The lack of resources and capacity to regulate transfer pricing in developing countries

Revenue authorities in developing countries have a lack of capacity, expertise and bargaining power to effectively monitor transfer pricing transactions therefore the complexity of transfer pricing and MNE transactions presents a challenge for these revenue authorities. The lack of capacity by revenue authorities of developing countries to monitor transfer pricing transactions entered into by MNEs offers MNEs an opportunity to shift profits from these developing countries to other countries which are also known as 'tax havens'.. (Mc Nair, Dotley and Cobham 2010:1-2)

There is a general consensus that the main challenge facing developing countries that are implementing the arm's length principle is the lack of resources. (Curtis and Todorova 2012:9)

Power imbalances between MNE's and developing countries

A power imbalance is created when two revenue authorities have different transfer pricing expertise and have different capacity to administer transfer pricing transactions. Companies may have an incentive to apportion a greater portion of their profits on international transactions where the revenue authority has the greater capacity to administer transfer pricing in order to avoid disputes with a strong revenue authority which usually exists in a developed country. The impact of power imbalances between countries is likely to be a substantial factor in the challenges faced by developing countries regarding transfer pricing as it may result in a loss of tax revenue for developing countries. (Mc Nair, Dotley and Cobham 2010:2-10)

There are a lack of forums in developing countries to engage with about international tax and more specifically forums dealing with transfer pricing. The UN Committee of Experts on International Tax Matters (the UN Committee) is the only truly multilateral forum which developing countries can engage with on international tax. The challenges faced by developing countries regarding transfer pricing are broadly defined by the UN Committee as the lack of capacity to implement transfer pricing legislation and monitor any misuse of transfer pricing by MNEs whereas MNEs have the resources to enter into complex international transactions. (McNair, Dotley and Cobham 2010:8-9)

The lack of comparable data

The OECD (2010:18) recommends that the arm's length principle be used in assessing transfer pricing transactions. The arm's length principle is widely used internationally by both OECD and non-OECD countries. Developing countries have limited access to comparable data and therefore it is difficult for these countries to apply the arm's length principle. Some developing countries use data extracted from databases such as the European and United States databases as the comparable data in order to determine the appropriate transfer prices for certain transactions. The use of developed countries' databases by developing countries as a source for comparable data may be problematic because of the differences between developed and developing countries such as geographical locations and market conditions (Mc Nair, Dotley and Cobham 2010:10).

Identifying comparable transactions is often time consuming and sometimes impossible. It is difficult for developing countries to obtain comparable information for the following reasons:

- The number of companies in different sectors is few. (Curtis and Todorova 2012:8)
- Developing countries lack the resources to allow for proper analysis of transfer pricing activities therefore the comparable information may be incomplete. (OECD 2014:2)
- Existing databases on transfer pricing analysis usually contain data about developed countries which makes it difficult for developing countries to perform benchmark studies. (Curtis and Todorova 2012:8)
- The economies of developing countries have only started to open up very recently therefore there is limited information and comparable transactions. (Curtis and Todorova 2012:8)

The allocation of profits on international transactions between the entities and countries that participated in the transactions is the biggest challenge when it comes to transfer pricing. (Mc Nair, Dotley and Cobham 2010:3-8)

The arm's length principle

The assumptions behind the arm's length principle are that the tax of MNEs should be evaluated as though they are separate independent and unrelated entities. The assumptions behind the arm's length principle may be problematic because MNEs are frequently created in order to enter into transactions which may not be economically feasible between unrelated parties. The arm's length principle treats transactions between related parties as though they were entered into by unrelated parties. (Mc Nair, Dotley and Cobham 2010:8)

Another downside or challenge of the arm's length principle is that it does not always take into account economies of scale or other privileges that prevail for associated entities. (Lohse, Riedel and Spengel 2012:6).

To address the challenge of profit allocation, the arm's length principle will assist in determining the appropriate price that should have been paid or charged on the international transaction. The arm's length principle simply states that transactions between associated enterprises should not be distorted by the special relationship that exists between the parties. (OECD 2011:2). The arm's length principle ensures that profits made on international transactions by MNEs are properly allocated among the countries in which these MNEs operate while also avoiding double taxation. The implementation of the arm's length principle presents significant challenges not only for resource deprived developing countries but also for developed countries (Mc Nair, Dotley and Cobham 2010:3-8).

Intercompany transactions can be classified into four main categories namely; tangibles, intangibles, services and financing or cost sharing. Important factors influencing the determination of arm's-length price include the type of transaction under review as well as the economic circumstances surrounding the transaction. In addition to influencing the amount of the compensation, these factors may also influence the form of the payment. (PwC 2013:18)

Other challenges of determining the transfer price of intangibles is the fact that they are difficult to detect and are often transferred bundled along with tangible items (United Nations 2012:6).

The arm's length principle has given rise to different methods of determining transfer prices each of which is complex (Lohse, Riedel and Spengel 2012:9). The different methods of transfer pricing will be discussed below together with the limitation of each method which pose additional risks and challenges for the countries adopting the arm's length principle.

Comparable Uncontrolled Price Method (CUP)

The CUP method compares the price of an uncontrolled transaction with the price of a controlled transaction. An uncontrolled transaction is where the parties involved in the transaction are not affiliated and are themselves not part of the same group of companies. In order to use the CUP method, there must be comparable transactions and from these comparable transactions, the OECD outlines the characteristics which need to be considered for comparability. The comparable characteristics include, but are not limited to; product types, quality, availability, assets used and risks assumed contractual terms and economic circumstances. The limitation to the CUP method is the fact that it is not applicable to transactions involving intangible assets as intangibles are unique and thus it is difficult to find a comparable transaction in the market (Lohse, Riedel and Spengel 2012:9).

The growth of the intangible economy has opened new challenges for the arm's length principle (United Nations 2012:6) The challenges with transfer pricing of intangibles lies in the questions such as (Mc Nair, Dotley and Cobham 2010:3-8):

- How can intangibles such as brand recognition be valued within a particular market?
- How a comparable product can be identified against which the intangible can be valued given the unique nature of intangibles?
- How should the potential future value and risk be reflected if the intangibles are transferred between jurisdictions?

Resale Price Method (RPM)

Obtaining the transfer price using the RPM requires that the resale price of the good or service is obtained from a distributor. The resale price obtained from a distributer needs to be reduced by an appropriate gross margin. The RPM implies that the gross margins for all goods and services are comparable, which may not be a realistic conclusion (Lohse, Riedel and Spengel 2012:10). For this reason the RPM method is most suitable to sales and marketing operations such as those typically carried out by a distributor (OECD 2010:4).

Cost Plus Method

The cost plus method is similar to the RPM but instead of obtaining the resale price from a distributor, the cost plus method takes the perspective of a manufacturer. A mark up to the cost of goods sold is added in order to determine the arm's length price. The same limitations apply for the cost plus method as for the RPM. The critique which applies for the cost plus method is whether costs and mark ups are similar over different products and whether costs are even an appropriate starting point. (Lohse, Riedel and Spengel 2012:10)

Profit Split Method

Total profits accruing from controlled transactions are identified and split between associated companies forming part of the transaction using ratios that would have been used in an uncontrolled transaction. A limitation of the profit split method is that measuring the total profit may be a difficult task. Another limitation of the profit split method is that it is questionable whether profit allocation of independent companies provides appropriate ratios (Lohse, Riedel and Spengel 2012:11).

Transactional Net Margin Method (TNMM) and Comparable Profits Method (CPM)

In order to determine the transfer price of a transaction entered into by a taxpayer, both the TNMM and the CPM require a comparison of the taxpayer with a group of similar stand-alone companies. The stand-alone companies selected need to operate in the same field, perform similar functions and distribute comparable products. A challenge faced when applying either the TNMM or the CPM is that it is difficult to identify and quantify operating profits of transactions as these can be affected by many factors. (Lohse, Riedel and Spengel 2012:11)

Transfer pricing challenges in BRICS countries

The general challenges discussed above apply to all BRICS countries as they are developing countries. The challenges specific to the OECD guidelines on transfer pricing apply specifically to Russia, India, China and South Africa as these countries are the ones who apply the OECD guidelines to their own transfer pricing legislations whereas Brazil does not apply OECD guidelines in its transfer pricing legislation.

All BRICS countries, excluding Brazil, use the OECD guidelines on transfer pricing as a starting point in developing their own transfer pricing legislation. The Brazilian transfer pricing system is absolutely unique and differs from the rules found in the OECD guidelines on transfer pricing (Hattingh 2015:12).

Brazil's transfer pricing rules took effect on 1 January 1997, have been very controversial. Contrary to the OECD guidelines, Brazil's transfer pricing rules do not adopt the internationally accepted arm's-length principle. Instead, Brazil's transfer pricing rules define maximum price ceilings for deductible expenses on inter-company import transactions and minimum gross income floors for inter-company export transactions (PwC 2013:284).

Through the provision of safe harbours and exemptions, the transfer pricing rules in Brazil were designed to facilitate the monitoring of inter-company transactions by the Brazilian tax authorities while they develop more profound technical skills and experience in the domain, indicating that the Brazilian tax authorities may lack the necessary skills to regulate transfer pricing.While incorporating these transaction-based methods, the drafters of the Brazilian transfer pricing rules excluded profit-based methods, such as the TNMM and this is contrary to the OECD Guidelines (PwC 2013:284).

Brazil's complex tax structure, large tax burdens and high government spending have resulted in the increase in institutional risk and a decline in foreign direct investment. The unique transfer pricing rules in Brazil may increase a company's tax burden due to exposure to higher taxes and potentially a double taxation (Tinoco and Ayub 2014).

Russia's transfer pricing legislation and policies are influenced by the OECD guidelines on transfer pricing. The tax law in Russia and the interpretation of the tax laws by the Russian tax authorities is inconsistent. Due to the problems identified with the Russian tax laws, there is a reliance on the courts to develop tax law, however case law on transfer pricing does not exist in Russia (PwC 2013:5-9).

The Indian transfer pricing regulations are based on the arm's length principle. The Indian tax authority has experienced administrative challenges in respect of transfer pricing legislation. India relies on comparable data in the determination of an arm's length price; however, market price and commodity volatility in India and the rest of the world has resulted in comparability analysis being a challenge for the tax authorities.

The quantification of the incremental profits from location specific advantages (LSA) among associated enterprises is a challenge in transfer pricing as India believes that it provides certain LSAs which are not take into account in the determination of the arm's length price. The LSAs that India provides are; skilled labour, access to a growing market, a large customer base and a developed distribution networ. (PwC 2013:494).

Tax authorities in countries with low labour costs such as India and China often claim that some of the excess profits resulting from outsourcing should be taxable within their respective countries which are currently not being taken into account in the arm's length principle (Curtis and Todorova 2012:10).

MNEs want to improve efficiencies within their groups therefore this has resulted in MNE groups sharing resources internally and therefore increasing the number of intercompany transactions. The sharing of resources between MNE groups has resulted in an increase in intercompany service transactions. The determination of the arm's length remuneration on the intercompany service transactions has proved to be one of the main challenges for the Indian transfer pricing administration (United Nations 2012:11).

Cross border financing within MNE groups has increased therefore increasing the number of intercompany loans and guarantees. Transfer pricing of intercompany loans is considered to be one of the most complex transfer pricing issue in India. The main transfer pricing issue with intercompany loans is the benchmarking of these loans in order to arrive at an arm's length interest rate applicable to these loans (United Nations 2012:11).

Like many other African countries, South Africa is a resource rich country. South Africa has expressed concerns regarding the application of the arm's length principle as this principle attributes significant value to intellectual property (Curtis and Todorova 2012:10). The significant value placed by the arm's length principle on intellectual property may be unfair for a resource rich country in determining the tax base of a transaction attributable to that country. There has been significant debate over the past few years regarding the share of revenue between MNEs and African governments (Curtis and Todorova 2012:10). In attempting to address the challenge, the allocation of the tax base between intellectual property and physical resources, South Africa has recently passed amendments to its transfer pricing legislation to protect the country's natural resources (Curtis and Todorova 2012:10). The amendments to the South African legislation on transfer pricing will be explored in greater detail in Section Four.

Comparable data to be used when determining transfer prices is generally not available for South African companies. South Africa only has limited requirements for filing statutory accounts and these requirements are restricted to publicly listed entities which explain why there is little comparable data available (Deloitte 2015:198).

SARS still needs to receive additional human resource support to audit compliance with established transfer pricing legislation and guidelines (Hattingh 2015:16).

SOUTH AFRICA'S RESPONSE TO TRANSFER PRICING, PROFIT SHIFTING AND BASE EROSION

The development of transfer pricing legislation in South Africa

South Africa is one of the first countries in Africa to adopt specific transfer pricing rules that originated in 1995 (Deloitte 2015:7). The earlier rules of transfer pricing in South Africa provided SARS with the discretion to adjust the consideration paid or received if a transaction was not at arm's length (Deloitte 2015:7). Although South Africa first implemented transfer pricing regulation in 1995, SARS has only recently began to focus on transfer pricing (Curtis and Todorova 2012:22). The more outdated the 1995 transfer pricing rules in South Africa became, the more the South African government recognised the importance for updating the transfer pricing rules to be more in line with international standards (Deloitte 2015:7). South Africa began to incorporate into its transfer pricing legislation some transfer pricing rules followed in New Zealand and Australia which are both OECD member countries (Deloitte 2015:7).

The pronouncements made by the then Minister of Finance, Pravin Gordhan, in the 2012 Budget Speech with regards to transfer pricing led to amendments in South Africa's transfer pricing regulations which are contained in section 31 of the Income Tax Act 58 of 1962 (ITA) (Sweidan 2015).

Prior to the revised section 31 of the Income Tax Act 58 of 1962 (ITA), as amended, which took effect from 19 July 1995, transfer pricing was regulated by the compliance with article 9 of the OECD Model Tax Convention Treaty or its equivalent. Profits were either adjusted in terms of the general deduction formula if expenditure was grossly excessive, or in terms of the old section 103(1) of the ITA for general anti-avoidance.

Where property was disposed of for a consideration not constituting an arm's length amount, the Commissioner could deem it to be a donation in terms of section 58 of the ITA, resulting in the deemed donation being subject to donations tax at a rate of 20%.

Prior to the amendments made to section 31 of the ITA, SARS issued a Practice Note 7 (PN7) in 1999 which provides taxpayers with guidelines regarding transfer pricing. The documentation guidelines in PN7 reflect the OECD guidelines on documentation (Curtis and Todorova 2012:22). The guidelines in the PN7 are not legally binding which is considered to be one of the weaknesses in the transfer pricing regime of South Africa (Jantjies 2015:24).

In general, section 31 of the ITA, after the amendments, stated that all transactions should be concluded at arm's length and that any benefits received by the parties forming part of an intercompany transaction or a related party transaction should be treated as a dividend and taxed at a rate of fifteen per cent (Jantjies 2015:22). The transfer pricing section of the ITR14 corporate income tax return should be completed if any scheme, transaction, operation or agreement set out in section 31(1)(a) of the ITA has been entered into. The requirement to completing the transfer pricing section of the ITR14 removes the requirement that transactions must not have been at arm's length in order to fill out the transfer pricing section (Daya and Salusbury 2016).

The new transfer pricing legislation is more aligned to global standards and has extended SARSs' power to adjust not just the consideration but also the terms and conditions of non-arm's length transactions. The amendment of section 31 has resulted in the onus being placed on the taxpayer to prepare the taxpayers tax return on an arm's length basis here as under the previous legislation, the Commissioner or SARS had the discretion to adjust the consideration. The key issue is that the burden of proof has shifted from SARS to the taxpayer (Deloitte 2015:8,198).

Transfer pricing in South Africa has been through a series of incremental changes since the amendment of section 31 of the ITA in 2012. In 2014 South Africa saw draft legislation that sought to change the rules on benefits gained from related party transactions as a dividend which was enacted in early 2015 (Deloitte 2015:8,198).

South Africa also has legislative remedies supporting transfer pricing and combatting base erosion and profit shifting through the:

- Introduction of interest limitation rules and anti-avoidance rules for hybrid instruments;
- Introduction of broader withholding tax rules;
- Restrictions on deductions for certain intellectual property transactions;
- Exchange control restrictions impacting the ability to pay certain fees;
- Self-assessment provisions and inherent requirements for transfer pricing documentation;
- ITR14 and International Financial Reporting Standards (IFRS) disclosure requirements for cross border transactions;
- Stringent controlled foreign company rules;
- Davis Committee recommendations. (Deloitte 2015:10)

The above legislative remedies show the progress South Africa has made with regards to combatting profit shifting and base erosion.

On December 23, 2016, South Africa issued its regulations implementing the country-by-country reporting (CbCR) standards for MNEs. These regulations entrench CbCR requirements in SA's transfer pricing regime, and follow legislative changes in SA related to the OECD's Base Erosion and Profit Shifting (BEPS) initiative, specifically Action 13. The regulations are effective for tax years beginning on or after January 1, 2016. (PwC 2017:1) It is clear from the above that South Africa has made a lot of progress with regards to transfer pricing. On the other hand a lot more still needs to be done regarding transfer pricing legislation and regulation such as; addressing the skill challenges faced by SARS in order to be able to be effectively regulating transfer pricing as well as appropriately determining the arm's length price.

South Africa has also appointed a committee to consider the 15 action plans recommended by the OECD BEPS program from a South African perspective which has led to the publication of a series of reports by SARS and the Davis Tax Committee (Deloitte 2015:198). In the past few years, the challenges faced by both developed and developing countries regarding transfer pricing has been rigorously addressed by the UN and OECD (Baxter 2015). The recommendations made by the UN and the OECD regarding transfer pricing will be explored in greater detail in section 5. South Africa only has observer status at the OECD however some South African officials were involved in the work of the party that developed the OECD guidelines on transfer pricing and BEPS as well as the development of the UN work on transfer pricing (Baxter 2015).

On 15 December 2015, following the OECD's final report on the 15 Action Plan to Base Erosion and Profit Shifting, SARS issued a draft notice relating to transfer pricing documentation requirements to align the requirements to that of the recommendations in *Action 13 Report- Transfer Pricing and Country by Country Reporting* of the OECD's 15 Action Plan report. On 11 April 2016 SARS issued draft regulations which entrench country-by-country reporting in the domestic legislation. SARS also updated the ITR14 corporate income tax return which includes significant transfer pricing disclosure requirements such as a breakdown of intragroup interest royalties and service fees by jurisdiction (Daya and Salusbury 2016).

South Africa has already implemented and adopted many legislative remedies to counter base erosion and profit shifting and is advanced with disclosure requirements (Deloitte 2015:12). On 24 February 2016 the Minister of Finance, Pravin Gordhan, announced the introduction of a voluntary disclosure program. The voluntary disclosure program allows taxpayers with offshore assets and income to regularise their tax defaults and/or exchange control contraventions (SARS 2016). On 20 July 2016 legislation regarding the voluntary disclosure program was released by Treasury (KPMG 2016:1).

SARS (2016) has information exchange agreements which can be divided into four categories as follows:

- USA FATCA Intergovernmental Agreement: this is an agreement between the tax administrators of the United States of America and South Africa to exchange tax information automatically under the double taxation agreements between the two countries.
- Standard for Automatic Exchange of Financial Accounting Information: this is also referred to as common reporting standards. It is a global model for automatic exchange of information under the Model Competent Authority Agreement to which South Africa is a signatory.
- Multilateral Mutual Assistance Agreements: these are agreements between countries to exchange tax information and also assist in the collection of taxes.
- Bilateral Tax Information Exchange Agreements: these are agreements between the tax administrators of two or more countries to enable them to exchange tax information upon request.

South Africa has recruited and developed a dedicated transfer pricing audit team at SARS to audit potential transfer mispricing. The team at SARS focuses on auditing transactions and entities that are suspected of engaging in profit shifting activities (Hattingh 2015:23). The results from thirty audits conducted by the transfer pricing audit team at SARS has been a recovery of tax revenue of approximately R5.8 billion from the years 2012 to 2014 (Deloitte 2015:5). The transfer pricing audit team has also worked on double tax agreements or tax treaties and other international agreements with other countries (Hattingh 2015:23).

South Africa has robust measures through its controlled foreign company rules and exchange controls to compliment the already robust transfer pricing legislation (Deloitte 2015:12). South Africa’s robust transfer pricing regime is not without weaknesses and difficulties some of which have already been discussed in the previous section.

Weaknesses in the South African transfer pricing legislation

Even though transfer pricing legislation has been updated, there are still some weaknesses in the legislation such as the lack of focus on non-residents (Hattingh 2015:24). Some of the weaknesses and areas for development in South Africa’s transfer pricing regime are the following (Hattingh 2015:24):

- SARS has limited resources and capacity to implement the audit plan to audit transfer prices.

- There is a strong reliance on the use of alternative dispute resolution to resolve transfer pricing disputes as opposed to litigation, which gives a greater degree of certainty.
- There is no APA (Advance Pricing Agreement) programme in South Africa which encourages greater compliance and eases international trade and foreign direct investment.
- There is limited guidance on interactions with double tax agreements.
- There is still a lack of clarity as to whether transfer pricing documentation should be mandatorily or voluntarily be disclosed.

In the 2016 Budget Speech, it was noted that areas that would receive specific attention would be: unacceptable transfer pricing practices, treaty shopping and highly geared financing structures. The areas highlighted in the Budget speech to receive specific attention echoes the increased international focus on transfer pricing.

In the past few years, the transfer pricing challenges which face many countries have been “rigorously” addressed by the UN and OECD. South Africa has in place robust and comprehensive transfer pricing rules in accordance with best practice. However, as mentioned above South Africa’s transfer pricing regime still has its own challenges that still need to be dealt with.

RECOMMENDATIONS BY THE OECD AND UN ON HOW DEVELOPING COUNTIRES CAN ADDRESS THEIR TRANSFER PRICING DIFFICULTIES

This section will consider different recommendations made by different bodies such as the OECD and the UN, applying them for developing countries. The OECD guidelines on transfer pricing are however only applied by certain countries, most of which are developed countries. More and more developing countries such as South Africa are starting to implement the OECD guidelines in their tax legislation (United Nations 2013:22).

The first section will explore the recommendations made by the UN regarding transfer pricing challenges for developing countries. The second section will consider, in brief, the latest recommendations made by the OECD regarding transfer pricing which can be applied for developing countries.

Section one: UN Manual on transfer pricing for developing countries

Safe harbour rules limit or prevent the application of certain tax rules to certain taxpayers. Introduction of safe harbour rules may result in an increase in taxpayer certainty and a reduction in tax compliance and administration costs. The reduction in tax administration costs due to the safe harbour rules will allow the excess resources to be used to focus on non-compliance cases where higher tax revenue may be generated (United Nations 2013:22).

Many companies’ capital is made up of a much greater contribution of debt than of equity. It is usually more beneficial from a taxation viewpoint to hold more debt than equity due to the tax deduction the firm will get on the interest paid on the loan, whereas there is no deduction for dividends paid in many jurisdictions. Limitation rules can be introduced by countries which limit the amount of interest deduction in the determination of a taxpayer’s taxable income. The limitation of the interest deduction may limit the shifting of profits into different jurisdictions through excessive debts by way of intercompany loans (United Nations 2013:23-24).

A country can introduce controlled foreign corporation (CFC) rules in order to prevent taxpayers from shifting income into foreign companies incorporated in low tax jurisdictions. CFC rules will treat income from foreign corporations as taxable income in the taxpayer's resident company. CFC rules should only be applied on retained earnings of foreign subsidiaries (United Nations 2013:24).

An important element to the implementation of transfer pricing legislation is the documentation requirements. When countries decide on the documentation requirements, they should take into account the compliance costs which they are imposing onto the taxpayers which are required to produce the documentation. Another issue that countries need to consider is whether any benefits arise as a result of the documentation requirements and whether this benefit can be justified by the documentation burden placed on taxpayers.(United Nations 2013:24).

Advance pricing agreements or arrangements (APAs) are becoming popular with MNEs as these MNEs have often recently depended on APAs. APAs are pricing methodologies which countries can set in advance in relation to a certain type of transaction. APAs are considered by taxpayers to be one of the safest way to avoid double taxation. For developing countries, there are some advantages and disadvantages of introducing APAs as well as some implementation issues (United Nations 2013:24-25). The advantages, disadvantages and implementation issues of APAs will not be explored in this report.

An important part of transfer pricing legislation is the time which the law allows for transfer pricing audits and assessments. Countries should ensure that they do not set too long of a period which adjustments are possible because it may lead to taxpayers facing very large financial risks. Countries should ensure that the timing set for audits is in line with international standards in order to minimise the risk of double taxation. All countries, whether developing or developed, should have domestic transfer pricing regulation in order to eliminate or minimise double taxation (United Nations 2013:25).

Transfer pricing rules need to be enforced to ensure that all parties affected by the measures comply. Countries that do not effectively implement transfer pricing rules, may lose out tax revenues to countries which enforce their transfer pricing rules. (United Nations 2013:26)

The above-mentioned recommendations are not an exhaustive list of the recommendations made by the UN regarding transfer pricing for developing countries.

The principles of the OECD guidelines on transfer pricing have been largely adopted into the amended section 31 of the Income Tax Act.
SARS controls transfer pricing through section 31 by adjusting the price charged between multinational entities (where one of those entities is a tax resident) which are different to what would have been concluded at an arm's length basis between unrelated persons and to tax the entity concerned according to the adjustment, as well as raise penalties and interest.

In order to do this an international model of the arm's length principle, as set out in the OECD guidelines, has been adopted. SARS promotes the use of the OECD guidelines for such a purpose and prescribes that these guidelines are to be used in interpreting what an arm's length transfer price is in South Africa (Adams & Adams 2016:1).

South Africa also has regulation over CFC's in s9D of the Income Tax Act which addresses profit shifting risks by South African residents into lower tax jurisdictions.

Section two: OECD guidelines on transfer pricing.

This section will consider the latest recommendations made by the OECD with regards to transfer pricing.

The OECD action plan to transfer pricing and base erosion specifically addresses the transfer pricing documentation as well as transfer pricing of intangibles. In action 8, the OECD raises the importance of the arm's length principle and describes it as the cornerstone of transfer pricing rules. The arm's length principle provides a standard for tax administrators as well as taxpayers to evaluate transfer prices (OECD 2015:9).

In order to assess a transaction between associated enterprises, consideration should be made by analysing the contractual relations of the parties to the transaction as well as analysing the conduct of the parties (OECD 2015:10).

CONCLUSION

Transfer pricing is a complex issue not just for resource restricted developing countries but also for developed countries. Developing countries need to ensure that they regulate transfer pricing in order to protect their tax base while also ensuring that they do not impede foreign direct investment which they need for economic growth. The regulation of transfer pricing is essential for a developing economy, however regulating transfer pricing is not an easy task for developing countries as already addressed in this report. A balance needs to be found between regulating and protecting a country's tax base and allowing for greater economic growth.

The arm's length principle is a widely accepted tool for determining transfer prices. It is important that developing countries incorporate an element of the arm's length principle into their transfer pricing legislation to ensure the country maintains its global competitive advantage. The implementation of the arm's length principle is not an easy task for tax authorities in developing countries due to the lack of comparable information, the lack of skills and other resources to be able to effectively implement transfer pricing regulation.

South Africa also faces the transfer pricing challenges like any other developing countries; however South Africa is ahead of many developing nations when it comes to transfer pricing regulation. South Africa now has in place comprehensive transfer pricing regulations. A lot still needs to be done in South Africa with regards to transfer pricing despite the comprehensive rules currently in place such as developing skills within the transfer pricing division at SARS to be able to effectively collect tax due to it and investigate any transfer mispricing.

The OECD and the UN have played a major role in addressing the challenges faced by developing countries. Both the OECD as well as the UN echo the importance for a country's transfer pricing regulation to be in line with international standards through the application of the arm's length principle while also ensuring that the country's specific needs and challenges are addressed by the transfer pricing regulation.

It is important to note that there is no model or template transfer pricing legislation that works in every situation. Transfer pricing legislation should address the needs of a particular country. (United Nations 2013:60)

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TAX016 A comparative analysis of the respective tax dispute resolution platforms available in South Africa and Australia to conclude on the adequacy of the South African tax dispute resolution platforms

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ABSTRACT:

Internationally, tax disputes between taxpayers and tax authorities have increased in recent times (Watkin, 2013:38). 'The importance of the ability of taxpayers to challenge the legality of actions and decisions within the tax system is internationally recognised' (South African Revenue Service, 2014a:14). As a result, countries like South Africa and Australia have established platforms to deal with tax disputes.

From a South African perspective, the abovementioned tax disputes may be addressed by utilising the dispute resolution process ('DRP') set out in the Tax Administration Act of 2011 ('the TAA'). The TAA provides for the rights and obligations of taxpayers and the South African Revenue Service ('SARS'). Where tax disputes are concerned, the TAA stipulates the procedures to be followed and the platforms available to resolve these disputes.

DRP, being an important aspect of the tax legislation in countries, needs to be adequate and effective in achieving its objective. As a result, this research report aims to ascertain the adequacy of the platforms available in South Africa in addressing tax disputes. A comparative analysis of the dispute resolution platforms available in South Africa and in Australia was therefore performed to achieve the objective of this report.

Key words:
comparative analysis, dispute resolution platforms, South African Revenue Service, Tax Administration Act, tax disputes

Abbreviations

AAT	The Administrative Appeals Tribunal
ADR	Alternative Dispute Resolution
ATO	Australian Taxation Office
Days	Business days
DRP	Dispute Resolution Process
SARS	The South African Revenue Service
TAA	Tax Administration Act 28 of 2011
The Notice	Rules promulgated under section 103 of TAA

INTRODUCTION

Background

Tax disputes between a taxpayer and a tax authority regarding an amount of tax owed or timing of the payment of tax is a frequent occurrence amongst tax administrations across the world (HM Revenue Customs, 2014:4). Tax law or the manner in which it is to be applied to a specific set of circumstances may be intricate, which may result in the legal cases (HM Revenue Customs, 2014:4). An effective tax system should, however, have processes in place for resolving such tax disputes (Johannes, 2014:1). The tax system should preserve the revenue authority's responsibility to collect taxes whilst protecting the taxpayer's rights (Johannes, 2014:1).

Tax dispute resolution in South Africa

The TAA consolidates the administrative legislation that was previously scattered across the various acts administered by the South African Revenue Service ('SARS') (Johannes, 2014:5). This Act came into effect from 1 October 2012 and essentially establishes the rights and obligations of both the taxpayer and SARS (Kotze, 2014:240).The TAA further introduced section 9 (sections 101 to 150 of the TAA) which establishes the rules relating to dispute resolution. Section 9 is further broken down into the following categories:

- General rules, including burden of proof (Part A);
- Objection and appeal, including Alternative Dispute Resolution ('ADR') (Part B);
- Tax Board (Part C);
- Tax Court (Part D);
- Appeals against Tax Court decisions (Part E); and
- Settlement of dispute (Part F).

As indicated by the categories above, the DRP provides various platforms of addressing disputes between SARS and the taxpayer (South African Revenue Service, 2014b:58). These platforms are necessary when a taxpayer is not satisfied with the outcome and the reasons associated with an assessment or certain decisions by SARS and the taxpayer has decided to object to this (Kotze, 2014:241).

Tax dispute resolution in Australia

A federal system of government was established by the Australian Constitution (Australian Government, n.d.). Powers are divided between a central (federal) and several regional (state) governments under a federal system (Australian Government, n.d.). The federal and state governments separately impose and administer of their own taxes (Frost &

Hanson, 2015:19). The federal government imposes income tax, value-added tax, petroleum resource rent tax and import duties and excises taxes (Frost & Hanson, 2015:19). The state governments, in turn, impose land tax, payroll tax and stamp duty on certain transactions (Frost & Hanson, 2015:19).

Disputes often arise between taxpayers and the federal or state tax authorities in Australia (Frost & Hanson, 2015:19). The Tax Administration Act of 1953 contains provisions in Part IVC relating to tax objections, reviews and appeals. Law Administration Practice Statements address settlements as well ADR. Furthermore, the Australian Taxation Office ('ATO') has implemented strategies and techniques to address tax disputes (Australian Taxation Office, 2015).

Reasons for comparing DRP's in South Africa with those in Australia

Australia was selected for the comparative analysis of this report. The reasons for selecting Australia are as follows:

- Both countries are members of the Commonwealth Group (Commonwealth Network, 2015). The Commonwealth Group is a group of nations that support and work with one another in meeting international objectives (Commonwealth Network, 2015). Member countries have 'common heritage in language, culture, law, education and democratic traditions' (Commonwealth Network, 2015).
- The ATO aims to resolve tax disputes efficiently and effectively (Australian Taxation Office, 2015a).
- The ATO is subject to scrutiny. Government-appointed entities complete the scrutiny by way of examining various features that relate to the administration of Australian tax. This aims to continuously improve the administration of taxes by the ATO (Australian Taxation Office, 2013).
- 'The drafting of the Tax Administration Bill was informed by international best practice and a comparative evaluation with tax administration laws over long periods, such as Australia' (Memorandum on the Objects of the Tax Administration Bill, 2011:179).

From the above it appears appropriate to compare the dispute resolution platforms in South Africa to the platforms in Australia.

Purpose of Research

DRP, being an important aspect of the tax legislation in countries, needs to be adequate and effective in achieving its objective. In South Africa, new/amended DRP rules were introduced in the TAA in 2012. The purpose of this research report is therefore to examine whether these rules, as contained in section 9 of the TAA, are adequate in providing platforms that address objections and appeals, lodged by either the taxpayer or SARS.

Research problem

The main research problem is the adequacy of the tax dispute resolution platforms available in South Africa, as contained in section 9 of the TAA. This is assessed through a comparative analysis of the platforms available in South Africa with those in Australia.

Sub-problems:

- What dispute resolution platforms are available to the South African taxpayer and SARS (Section 2)?

- What dispute resolution platforms are available to the Australian taxpayer and the ATO (Section 3)?
- Are the dispute resolution platforms available in South Africa adequate in comparison to the dispute resolution platforms in Australia (Section 4)?

Methodology

A literature review was performed to determine the dispute resolution platforms in South Africa and Australia respectively using, amongst others, statutes, government publications, books, e-journals, electronic resources and a thesis. A comparative analysis was thereafter performed in respect of the provisions in the TAA and the dispute resolution platforms in South Africa to that in Australia. Findings from the comparison were analysed to determine whether the DRP in South Africa is aligned with that of Australia and therefore adequate.

Scope and Limitations

This report addresses section 9 of the TAA only. Other provisions of the TAA, except for section 269 of the TAA (which relates to continuation of authority, rights and obligations found in the section 20, the Transitional Provisions, of the TAA), are not dealt with in this report; the exclusion applies to the Tax Ombudsman which is addressed in section 2 of the TAA. Provisions contained in any other piece of legislation, whether tax-specific or not, are also excluded from the scope of this report.

In terms of foreign jurisdictions, only provisions in respect of the tax dispute resolution platforms in Australia will be considered.

THE DISPUTE RESOLUTION PLATFORMS PROCESS IN SOUTH AFRICA

Introduction

Section 3 of the South African Revenue Service Act 34 of 1997 provides that ‘SARS’s objective is the efficient and effective collection of revenue’. A ‘natural tension’, however, exists between the taxpayer and SARS (Johannes, 2014:1). This tension is due to the taxpayer aiming to minimise the amount of taxes that should be paid to SARS whereas SARS aims to maximise the amount to be collected from the taxpayer on behalf of the State (Johannes, 2014:1). This ‘natural tension’, which includes processing and human errors, often gives rise to disputes between taxpayers and SARS (Johannes, 2014:1).

As evident from section 1 of this report, taxpayers have a right to dispute an assessment or a decision by SARS when they are in disagreement with such assessment or the decision (South African Revenue Service, 2014a:16). As previously stated, the TAA provides for administrative-type matters relating to tax and contains provisions on the rights and obligations of both the taxpayer and SARS. Section 9 of the TAA specifically addresses tax disputes and the related resolution process. Section 9, read together with any rules published by the Minister of Finance in terms of sections 103 and 269 of the TAA, makes available a legal structure for tax disputes across all tax categories found in the Acts administered by SARS (refer to annexure 1), excluding the Customs and Excise Act 91 of 1964 (SARS, 2015).

Section 9 of the TAA accordingly stipulates the platforms and procedures to be followed when a taxpayer is aggrieved by an assessment or specific decision formulated by SARS. Section 103 of the TAA allows for additional or more detailed rules regarding dispute resolution and the objection and appeal process to be published by the Minister of Finance. A set of rules, as referred to in section 103 of the TAA, has been published by notice in Government Gazette 37819, Notice 550; effective from 11 July 2014 (referred to hereafter as 'the Notice').

In publishing the rules, SARS' objective was to align them with the dispute resolution framework of the TAA (South African Revenue Service, 2014a:16). These rules administer the following:

- The processes to be followed when lodging an objection and appeal against an assessment or decision that is subject to section 104(2) (section 104(2) is explained further below);
- ADR processes, in accordance with part C of the Notice, to be applied where SARS or the person, aggrieved by an assessment or decision, may use in resolving a tax dispute; and
- The conduct and hearing that is specific to an appeal presented before a Tax Board or Tax Court (Government Gazette 37819, Government notice 550).

Section 269 provides that 'rules, notices and regulations issued under the provisions of a tax Act repealed by this Act that are in force immediately before the commencement date of this Act, remain in force as if they were issued under the equivalent provisions of this Act, until new rules, notices and regulations are issued under such provisions' (Tax Administration Act, section 269(1)).

Section 9 comprises of sections 101 to 150 inclusive and is categorised into various parts, as listed in section 1 of this report, each dealing with different rules and platforms available to taxpayers. Matters that can be disputed by a taxpayer may be objected to and appealed against through the objection and appeal process, the rules for which are contained in Part B of section 9 of the TAA. Depending on the outcome of this objection and appeal, taxpayers may take further steps through the remaining platforms available to them like ADR, settlement or tribunal and court hearings. Rules relating to these further steps are contained in Parts B to F of section 9 of the TAA. These are all discussed in more detail below, together with general rules on assessments and burden of proof.

Assessments and burden of proof

An assessment is defined in section 1 of the TAA as: 'the determination of the amount of a tax liability or refund by way of self-assessment by the taxpayer or assessment by SARS.' For the purposes s103 of the TAA, an assessment includes 'a decision referred to in section 104(2)' of the TAA (Government Gazette 37819, rule 1). These decisions are as follows:

- A decision not to prolong, by a senior SARS official, the time frame for lodging an objection;
- A decision not to prolong, by a senior SARS official, the time frame for lodging an appeal; and
- 'Any other decision that may be objected to or appealed against under a tax Act' (Tax Administration Act, section 104(2)).

A taxpayer who seeks to object to the aforementioned assessment has the burden to prove that the assessment is incorrect (Tax Administration Act, section 102(2)). Section 102(1) imposes the burden on the taxpayer to prove whether an amount is not taxable, whether or not an amount is deductible, whether valuation is correct, whether an amount qualifies as a deduction or the tax rate applicable to a transaction or a taxpayer (Tax Administration Act, section 102(1)). Furthermore, the onus is on the taxpayer to prove, in Court, that the tax treatment is incorrect should the taxpayer appeal against the disallowance of his objection (Tax Administration Act, section 102(1)). The burden of proof only falls on SARS in instances when SARS is unsuccessful in respect of a court case and decides to appeal the decision of a Tax Court to a Higher Court (Haupt, 2015:1012).

Objections and appeals

Should a taxpayer be aggrieved by an assessment, the taxpayer should be permitted by SARS to understand the reason for the assessment (Government Gazette 37819, rule 6(1)). The request for reasons must be provided, within 30 business days ('days') from the date of assessment, to SARS (Government Gazette 37819, rule 1 and rule 6(2)(*c*)). Where reasons, in the opinion of SARS, have been provided, SARS must, within 30 days after delivery of the request, inform the taxpayer as to where the taxpayer may locate the reasons that were provided (Government Gazette 37819, rule 6(4)). Where reasons, in the opinion of SARS, have not been provided SARS is required to provide reasons to the taxpayer within 45 days after the receipt of the request for the reasons from the taxpayer (Government Gazette 37819, rule 6(5)). These reasons may be used to formulate an objection, in terms of rule 7, relating to the assessment that the taxpayer is aggrieved by (Government Gazette 37819, rule 6(1)).

Rule 7(1) of the Notice provides that a taxpayer should lodge an objection within 30 days of receipt of the reasons for the assessment as requested in terms of rule 6 of the Notice (Government Gazette 37819, rule 7(1)). SARS may then allow, partly allow or disallow an objection (Tax Administration Act, section 106(2)).

A taxpayer may respond to such disallowance of an objection through the additional available platforms, as discussed below.

ADR

The ADR process affords a taxpayer the opportunity to resolve a tax dispute without the use of litigation (South African Revenue Service, 2014a:46). Compared to the Courts, the ADR process is less formal, less costly and allows for disputes to be resolved within a reduced time frame (South African Revenue Service, 2014a:46).

The ADR process, as contained in Part B of section 9 of the TAA, provides SARS and the taxpayer with a platform to reach a mutual agreement (Tax Administration Act, section 107(5)). This agreement is reached by considering the counterparty's analysis of the facts, the counterparty's application of tax law to the facts or both (South African Revenue Service, 2014a:46). The parties subject to the ADR process may elect to have a facilitator (who is a SARS official that is in good standing in the arbitration, mediation, legal, tax or accounting profession, has experience in the aforementioned fields and complies with the duties as per rule 17 of the Notice) facilitate the process (Government Gazette 37819, rule 16(1) and (2)). The facilitator may provide a written recommendation to the disputed parties, if an agreement is not reached between the disputed parties, at the conclusion of the ADR process (Government Gazette 37819, rule 21(1)).

Within 90 days, after the commencement date provided for in rule 15(1), rule 15(3) of the Notice provides that the taxpayer and SARS should finalise the ADR procedures (Government Gazette 37819, 15(3)). Should an agreement between the taxpayer and SARS be concluded, an assessment that gives effect to the agreement should be issued to the taxpayer within 45 days after the last signing of the agreement (Government Gazette 37819, rule 23(3)). Unresolved issues may be appealed, by the taxpayer or SARS, to the Tax Board or the Tax Court within 15 days of the date of the agreement (Government Gazette 37819, rule 23(4)).

Where SARS and the taxpayer are unable to reach an agreement, the parties may opt to settle the dispute instead, as described below (Government Gazette 37819, rule 24(1)).

Settlements

Section 143 of the TAA stipulates that it is the duty of SARS to assess and collect tax in accordance with laws legislated by Parliament and not to forfeit a tax that a taxpayer is legally entitled to pay (Tax Administration Act, section 143(1)). Part F of section 9 of the TAA, however, affords SARS and taxpayers an opportunity to resolve a tax dispute by way of a settlement (Government Gazette 37819, rule 24(1)). A settlement entails the resolution of a tax dispute by way of a compromise, either by SARS or the taxpayer, of a disputed liability (Tax Administration Act, section 142). This process should result in an agreement relating to the tax liability (Haupt, 2015:1016). Section 146 of the TAA provides the circumstances under which a settlement would be appropriate whereas, section 145 of the TAA provides the circumstances under which a settlement would be inappropriate (Tax Administration Act, section 145 and section 146).

Section 150 provides that once a dispute is settled, SARS may alter the taxpayer's assessment to provide for the settlement (Tax Administration Act, section 150(1)). SARS should within 45 days, after the date of the last signing of the settlement, issue the taxpayer with the altered assessment (Government Gazette 37819, rule 24(3)). This altered assessment may not be subject to objection and appeal (Tax Administration Act, section 150(2)).

A tax matter that remains unresolved, after the consideration of both ADR and settlement, may be subject to an appeal to the Tax Board or the Tax Court. The taxpayer should process the notice of appeal within 15 days of the date of the agreement or settlement (Government Gazette 37819, rule 23(4) and 24(4)).

Hearing of objections and appeals by administrative tribunals and the Courts

A tax matter that remains unresolved, after the consideration of both ADR and settlement, may be subject to an appeal to the Tax Board (Part C of section 9) or Tax Court (Part D of section 9). The taxpayer and SARS have the right to appeal to a High Court (Part E of section 9) if either party is dissatisfied with the decision of the Tax Court. A decision of the High Court may be appealed to the Supreme Court of Appeal and the Constitutional Court is able to overturn a decision of the Supreme Court of Appeal, if the decision pertains to a constitutional matter.

Tax Board

The Tax Board is an administrative tribunal created by the TAA (SARS, 2015). Both the taxpayer and SARS must consent for a matter to be heard by Tax Board (Tax

Administration Act, section 109(1)(*b*)). The Tax Board may currently only hear appeals involving disputes up to the value of R500,000 (Tax Administration Act, section 109(1)(*a*) and section 269(1) and Government Gazette 29742).

The Tax Board's decision must be provided within 60 days after the conclusion of the hearing (Tax Administration Act, section 114(2)). This decision is submitted by notice to both the taxpayer and SARS (Tax Administration Act, section 114(3)). Decisions of the Tax Board, which do not have precedent value, are binding on both the taxpayer and SARS (SARS, 2015). The party, however, who is unsatisfied with the outcome of the Tax Board hearing, has the option to have the matter be heard 'de novo' by the Tax Court (Tax Administration Act, section 115(1) and (2)). Such a hearing does not amount to an appeal but rather a new trial (SARS, 2015). The party who is not satisfied with the decision of the Tax Board may within 21 days, after the date of notice of the Tax Board's decision, request the appeal to be referred to the Tax Court (Tax Administration Act, section 115(1)). The appeal period is subject to extension, based on whether good cause exists, at the discretion of the Chairperson of the Tax Board (Government Gazette 37819, rule 29(5)).

Tax Court

The Tax Court is an administrative tribunal created under the TAA (SARS, 2015). The Tax Court has the authority to interpret and apply the law with regards to tax appeals lodged under section 107 of the TAA (Tax Administration Act, section 117(1)). Furthermore, the Tax Court may hear and decide 'an interlocutory application or an application in a procedural matter relating to a dispute' that falls under section 9 of the TAA, as provided for in the rules contained in the Notice (Tax Administration Act, section 117(3)).

The court's written decision should, within 21 days, be provided to both the taxpayer and SARS (Tax Administration Act, section 131). The decisions of the Tax Court are binding only between parties involved in the dispute (SARS, 2015). The Tax Court, however, does have 'persuasive value' in other Tax Courts, the High Courts and the Supreme Court of Appeal (SARS, 2015). A decision of the Tax Court is absolute; however, the taxpayer and SARS have the right to appeal to a High Court (de Swardt, 2015:1166).

High Court

Should either the taxpayer or SARS not be satisfied with the decision of the Tax Court, they may appeal the decision of the Tax Court (Tax Administration Act, section 133). An appeal, by the taxpayer or SARS, should be lodged with a High Court within 21 business days after the date of notice of the Tax Court's decision (Tax Administration Act, section 134(1)). The appeal may, on good cause, be extended at the discretion of the president of the Tax Court (Tax Administration Act, section 134(1)).

The decision of the High Court is binding on all lower courts and tribunals (SARS, 2015). Furthermore, the decision of the High Court is of 'persuasive value' in other High Courts, the Supreme Court of Appeal and the Constitutional Court (SARS, 2015).

Supreme Court of Appeal

The Supreme Court of Appeal deals with cases in which the High Court ruling was appealed (SARS, 2015). Section 133(2)(*b*) of the TAA, however, permits direct access to the Supreme Court of Appeal from the Tax Court (Tax Administration Act, section 133(2)(*b*)). The direct access from the Tax Court to the Supreme Court of Appeal is only permitted if permission is granted by the president of the Tax Court or the appeal was heard by the Tax

Court referred to in section 118(5) of the TAA (section 118(5) applies *inter alia* in instances where the disputed amount exceeds R50 million) (Tax Administration Act, section 133(2)(*b*)*(i)* and(*ii*)).

The decision of the Supreme Court of Appeal is binding on all lower courts and tribunals (Kotze, 2014:242). The Constitutional Court is, however, able to overturn a decision of the Supreme Court of Appeal if the decision pertains to a constitutional matter (Kotze, 2014:242).

Constitutional Court

An appeal against the decision of the Supreme Court of Appeal, pertaining to disputes of a constitutional matter, may be lodged with the Constitutional Court (Johannes, 2014:7). The Constitutional Court is the highest Court for all constitutional matters; however, in terms of dealing with tax appeals the Constitutional Court has limited jurisdiction to review judgement issued by the Supreme Court of Appeal (SARS, 2015).

Conclusion

Both the taxpayer and SARS are afforded several platforms to address tax disputes in terms of section 9 of the TAA. Should a taxpayer be aggrieved by an assessment, the taxpayer should be permitted by SARS to understand the reason for the assessment (Government Gazette 37819, rule 6(1)). These reasons may be used to formulate an objection, in terms of rule 7, relating to the assessment that the taxpayer is aggrieved by (Government Gazette 37819, rule 6(1)). SARS then is entitled to allow or disallow an objection (Tax Administration Act, section 106(2)). A taxpayer may respond to the disallowance of an objection through the ADR process, settlement, Tax Board or Tax Court (Haupt, 2015:1015). The ADR process provides SARS and the taxpayer with a platform to reach a mutual agreement (Tax Administration Act, section 107(5)). Where SARS and the taxpayer are unable to reach an agreement, the parties may opt to settle the dispute instead (Government Gazette 37819, rule 24(1)).

If still in disagreement, both the taxpayer and SARS should consent for the matter to be heard by the Tax Board (Tax Administration Act, section 109(1)(*b*)). If either party is not satisfied with the decision of the Tax Board, that person may request the matter to be referred to the Tax Court (Tax Administration Act, section 115(1)). A decision of the Tax Court is absolute; however, the taxpayer and SARS have the right to appeal to the High Court (de Swardt, 2015: 1166). The Supreme Court of Appeal deals with cases in which the High Court ruling was appealed (SARS, 2015). Section 133(2)(*b*) of the TAA also allow direct access to the Supreme Court of Appeal from the Tax Court (Tax Administration Act, section 133(2)(*b*)). An appeal may be lodged with the Constitutional Court regarding disputes of a constitutional matter (Johannes, 2014:7).

THE TAX DISPUTE RESOLUTION PLATFORMS IN AUSTRALIA

Introduction

As noted in section 1 of this report, a federal system of government was established by the Australian Constitution (Australian Government, n.d.). This system has two levels of government, the federal and state government, of which each level separately levies and governs their own taxes (Frost &Hanson, 2015:19).

A dispute between the taxpayer and federal or state government is a regular occurrence in Australia (Frost & Hanson 2015:19). One of the objectives of ATO is to preclude disputes from occurring (Australian Taxation Office, 2015a). Should these tax disputes, however, occur the objective of the ATO is to resolve them efficiently and effectively (Australian Taxation Office, 2015a). To support the aforementioned objective 'the ATO has introduced or improved a number of dispute management principles, strategies and techniques to avoid, minimise and resolve disputes as early, cooperatively and collaboratively as possible' (Australian Taxation Office, 2015a).

The Tax Administration Act of 1953 contains provisions in Part IVC relating to tax objections, reviews and appeals. Matters that can be disputed by a taxpayer may be objected to and appealed against through the objection and appeal process. Depending on the outcome of this objection and appeal, taxpayers may take further steps through the remaining platforms available to them like ADR, settlement or tribunal and court hearings. These are all discussed in more detail below, together with general rules on assessments and burden of proof.
Since the federal government levies and administers what is considered to be the main taxes (i.e. income tax, value-added tax, Petroleum Resource Rent tax and import duties and excises taxes), this section will focus on the dispute resolution platforms available within the federal system.

Assessments and burden of proof
The tax system in Australia is subject to a self-assessment model (Australian Taxation Office, 2015b). This model requires the taxpayer to submit an annual tax return, which should reflect the taxpayer's assessable income and the deductions and other credits that the taxpayer is entitled to (Australian Taxation Office, 2015b). The ATO may review the taxpayer's annual tax return (Australian Taxation Office, 2015b). This may result in the decrease or increase in the tax payable by the taxpayer (Australian Taxation Office, 2015b).

A taxpayer who is not satisfied with an assessment, decision, determination or notice of the ATO or with the inability to process a private ruling may officially process a 'tax objection' by way of the method established in Part IVC of the Tax Administration Act of 1953 (Tax Administration Act, section 14ZL(1) and (2)). The burden, however, to prove that an assessment is inaccurate or excessive as well as what the correct assessment should be is that of the taxpayer (Tax Administration Act, section 14 ZZO and section 14 ZZK). Furthermore, the appellant has the burden to prove that a taxation decision is inappropriate and what the appropriate decision should be (Tax Administration Act, section 14 ZZO and section 14 ZZK).

Objections and appeals
The objection to the ATO subject to section 175A of the Income Tax Assessment Act, which relates to an assessment, should be within:

- Two years: This is applicable to objections to assessments by individuals and small businesses about income tax matters;
- Four years: This is applicable to companies and individuals with more complex matters than the above mentioned; or
- Sixty days: This is applicable to all other matters (Tax Administration Act, section 14ZW and Income Tax Assessment Act section 170(1) and section 175A).

The Commissioner of the ATO is required to make a decision regarding an objection lodged by the taxpayer (Jone & Maples, 2012:539). The Commissioner of the ATO may allow, partly allow or disallow the objection (Jone & Maples, 2012:539). The decision by the Commissioner of the ATO is not required, by statute, to be provided within a specific time limit (Jone & Maples, 2012:539). If the Commissioner of the ATO disallows the objection, the resulting tax dispute between taxpayer and the ATO may be resolved through the use of several mechanisms (Jone & Maples, 2012: 539 and Tran-nam & Walpole, 2012:479). These mechanisms include ADR process, the ATO's independent review, the Administrative Appeals Tribunal as well as Courts (Frost & Hanson, 2015: 20 and Tran-nam & Walpole, 2012:479). Emphasis has been placed on ADR in Australia as it is platform provided to taxpayers and the ATO to prevent the expense associated with tax litigation (Tran-nam & Walpole, 2012:479).

ADR

ADR is the process in which a 'fair-minded person', also known as an ADR practitioner, assists disputing parties to resolve or reduce the extent of issues between them (Practice Statement Law Administration 2013/3, paragraph 4). ADR may be achieved through the following forms:

- Facilitative processes: An ADR practitioner aids the aggrieved parties in identifying the disputed issues, developing solutions, considering other alternatives and attempting to reach an agreement about the dispute in its entirety or in part (Practice Statement Law Administration 2013/3, paragraph 23).
- Advisory processes: An ADR practitioner provides advice on part or all of the facts associated with the dispute, the law applicable to the disputed assessment and potential outcomes (Practice Statement Law Administration 2013/3, paragraph 23).
- Determination processes: An ADR practitioner assesses the dispute and makes a decision regarding the dispute (Practice Statement Law Administration 2013/3, paragraph 23).

In pursuing ADR there is no optimal time frame (Practice Statement Law Administration 2013/3, paragraph 17). It is, however, ideal to initiate ADR procedures during the review performed in the objection stage (before the conclusion of the final decision by the ATO), after the issue of a position paper by the ATO during an audit or during the litigation phase of a dispute (Practice Statement Law Administration 2013/3, paragraph 17). The initiation of the ADR process is often triggered by an agreement between the ATO and the taxpayer (Practice Statement Law Administration 2013/3, paragraph 19). Any agreement that is reached in the ADR process must be made in terms the Code of Settlements, which provides the procedures associated with the settlement of tax disputes (Practice Statement Law Administration 2013/3, paragraph 45). The Code of Settlements is discussed below.

Settlements

A settlement is an agreement between parties to resolve a matter in dispute. The parties involved in the dispute compromise on what they consider to the 'legally correct position' (Practice Statement Law Administration 2015/1, paragraph 2). The ATO policy regarding settlement of tax disputes is stipulated in the Code of Settlements provided for in Practice Statement Law Administration 2015/1.

The commencement of procedures regarding settlements may be initiated by any party subject to the dispute (Practice Statement Law Administration 2015/1, paragraph 4). The settlement procedures may ensue at any stage of the dispute, including the period prior to the raising of an assessment (Practice Statement Law Administration 2015/1, paragraph 4).

Where a settlement agreement is reached, the settlement agreement should be finalised in writing and signed by both parties (Practice Statement Law Administration 2015/1, paragraph 8). The settlement agreement provides for the agreed position between the ATO and the taxpayer (Practice Statement Law Administration 2015/1, paragraph 8). This agreement may only be changed in extraordinary circumstances (Practice Statement Law Administration 2015/1, paragraph 8).

Independent Review

The independent review service came into effect from 1 July 2013 (Australian Taxation Office, 2015a). The service is only available to entities with a turnover exceeding Australian $250,000,000 (Australian Taxation Office, 2014). Furthermore, this process is only available if the entity has received a Statement of Audit Position that relates to the entity's income tax, excise, goods and service tax or other forms of tax (Australian Taxation Office, 2014).

As mentioned above, the ATO aims to avoid or resolve disputes as early as possible (Australian Taxation Office, 2015a). As a result, the independent review service is considered a vital platform to resolve, prior to an issue of an amended assessment, areas of disagreement and disputes early (Frost & Hanson, 2015:20 and Australian Taxation Office, 2015a).

In providing the service, a reviewer, who has had no prior involvement in the tax audit process, evaluates the areas of disagreements from the perspective of both the ATO and the taxpayer 'to determine a better view' (Australian Taxation Office, 2015a).

Where ADR, Independent Review or a settlement has failed to resolve the dispute between the taxpayer and the ATO, either party may appeal to the courts and administrative tribunals to attempt to resolve the tax dispute.

Courts and administrative tribunals

Australia does not have a dedicated tax court. The Administrative Appeals Tribunal ('ATT'), the Federal Court and the High Court, however, are platforms that hear disputes about federal government taxes (Frost & Hanson, 2015:22). A state administrative decisions tribunal, the District Court or Supreme Court hear disputes about state taxes (Frost & Hanson, 2015:22).

The Administrative Appeals Tribunals

While the AAT is not formally a court; the proceedings before the AAT are often conducted in a manner similar to that of a court (Frost & Hanson, 2015:22). The AAT is a judicial review body (Administrative Appeals Tribunal Act, section 2A and Tran-nam & Walpole, 2012:482). Therefore, the review of the decisions of administration agencies, which include the ATO, may be performed by the AAT (Tax Administration Act, section 14ZZA). An application to the AAT for a review of a decision should be lodged within 60 days after the receipt of notice of the decision of a review by the taxpayer making the application to the AAT (Tax Administration Act, section 14 ZZC).

The decision of the AAT may replace the decision of the ATO (Administrative Appeals Tribunal Act, section 43(1)(*c*)). The AAT may further reassess any penalty to be levied on the ATO or the taxpayer (Frost & Hanson, 2015:22).

The Federal Court provides a platform for taxpayers who are dissatisfied with the decision of the AAT to appeal its decision (Frost & Hanson, 2015:22). This appeal is restricted to only a 'question of law' (Frost & Hanson, 2015:22).

The Federal Court

Taxpayers may initiate proceedings in the Federal Court if the ATO has rejected the taxpayer's objection to the original decision. (Frost & Hanson, 2015:22.). An appeal to the Federal Court should be lodged within 60 days after the taxpayer is provided with notice of the decision (Tax Administration Act, section 14ZZN).

The Full Court of the Federal Court

Taxpayers or the ATO have a right to appeal to a Full Court of the Federal Court if they are dissatisfied with the decision of the Federal Court (Frost & Hanson, 2015:23). Taxpayers or the ATO are afforded 28 days, from the initial judgment of the Federal Court, to process an application to appeal the decision of the Federal court (Frost & Hanson, 2015:23).

The High Court

The High Court, the supreme judicial body in Australia, affords dissatisfied taxpayers with a platform to appeal the decision of the Full Court of the Federal court (Frost & Hanson, 2015:23). Within 28 days of the date of judgment of the Full Court of the Federal Court, an application to appeal its decision should be processed (Frost & Hanson, 2015:23).

The High Court, without the consideration of the lower courts, will accept a case that raises issues of constitutional legitimacy (Frost & Hanson, 2015:23).

State tax disputes

The proceedings for tax disputes that are specific to State taxes are similar to the proceedings for tax disputes at federal level (Frost & Hanson, 2015:23).

A taxpayer who is dissatisfied with their declared position may request the ATO to re-examine the taxpayers declared position (Frost & Hanson, 2015:21). The ATO may then subject the declared position to an adjustment (Frost & Hanson, 2015: 21). A taxpayer who is not satisfied with the adjustment processed by the ATO may, within 60 days after the decision was made, object to the adjustment (Frost & Hanson, 2015:21). This objection will result in an internal review by the ATO (Frost & Hanson, 2015:21).

Taxpayers who are dissatisfied with the outcome of the internal review may approach the state administration tribunal, the district court or Supreme Court to appeal against the decisions of the State government (Frost & Hanson, 2015:21 and 23).

Conclusion

In Australia, two levels of government, federal or state, each separately imposes and administers their own taxes (Frost & Hanson, 2015:19). Taxpayers who are dissatisfied with an assessment or decision of the ATO may process a 'tax objection' (Tax Administration Act, section 14ZL). The Commissioner of the ATO is then required to make a decision regarding the objection (Jone & Maples, 2012: 538). Should the ATO disallow the objection the taxpayer has the option to appeal the decision (Jone & Maples, 2012:537). The Administrative Appeals Tribunal (ATT), the Federal court and the High Court are platforms that hear appeals from taxpayers or the ATO about federal government taxes. Federal government taxed include income tax, value-added tax, petroleum resource rent tax and import duties and excises (Frost & Hanson, 2015:19). Disputes about state taxes are dealt with by the state administrative decisions tribunal, the district court or Supreme Court (Frost & Hanson, 2015:22).

COMPARATIVE ANALYSIS OF THE DISPUTE RESOLUTION PROCESS IN SOUTH AFRICA AND AUSTRALIA

Introduction

This section will provide a comparative analysis of the dispute resolution platforms available in South Africa and Australia (as discussed in detail in sections 2 and 3). This section will establish whether the DRP in South Africa and Australia are, in all material respects, similar and accordingly conclude if the DRP in South Africa is adequate, based on the presumption that the Australian DRP addresses disputes adequately.

Comparative Analysis

'The importance of the ability of taxpayers to challenge the legality of actions and decisions within the tax system is internationally recognised' (South African Revenue Service, 2014a:14). Countries like South Africa and Australia therefore have established platforms to deal with tax disputes. One method of determining the adequacy of the platforms in South Africa is by comparing the dispute resolution platforms in South Africa with the dispute resolution platforms in Australia. The findings of the comparison are analysed below. Tables 1 and 2 below summarise some of these findings.

Burden of proof and objection and appeals

In both South Africa and Australia, a taxpayer who seeks to object to an assessment has the burden to prove that an assessment is incorrect. Both SARS and the ATO are required to make a decision regarding an objection lodged by the taxpayer. SARS or the ATO may then allow, partly allow or disallow an objection. A taxpayer may respond to such disallowance of an objection through various platforms. The burden of proof and objections and appeals process in South Africa is thus similar in its intent that in Australia.

Alternative Dispute Resolution processes

ADR processes are present in South Africa and Australia. This process aims to resolve disputes through mutual agreement (Tax Administration Act, section 107(5)). These platforms provide taxpayers with the opportunity to resolve disputes without litigation as well as save the costs and time associated with litigation (South African Revenue Service, 2014a:46 and Australian Taxation Office, 2015a). The ADR process in South Africa is thus similar in its intent to the ADR process in Australia.

The ADR process in Australia provides for Facilitative processes, Advisory processes and Determination processes (Practice Statement Law Administration 2013/3, paragraph 23). South Africa, however, only provides for Facilitation (Government Gazette 37819, rule 16(2)). This difference indicates that South Africa may need to improve the ADR process.

Independent Review

Reviews aims to avoid or resolve disputes as early as possible (Australian Taxation Office, 2015a). The review platform is only available in Australia; South Africa does not have such a platform. The Australian review process is specific to entities with a turnover greater than Australian $250,000,000 (Australian Taxation Office, 2014). It is therefore directed at large corporations.

The lack of the review structure in South Africa implies that South Africa does not have adequate means to solve tax disputes without the consideration of litigation, should ADR or settlements fail.

Settlement

Settlement is an available platform to resolve disputes in South Africa and Australia. This dispute resolution platform is available to the taxpayers and tax administration authorities, prior to the consideration of litigation; appearing to facilitate timely resolution of disputes without lengthily litigation processes. The settlement platform in South Africa thus appears similar in its intent to that in Australia.

Courts and Tribunals

South African and Australian courts may differ in name but provide the similar platforms to taxpayers in terms of legal action and appeal. Both countries provide taxpayers and the tax administration authorities access to the Courts and options to object and appeal the decisions of lower courts or tribunals.

Australian taxpayers or the ATO have the option to object and appeal tax disputes to the High Court, which is the highest jurisdiction to which a tax dispute may be appealed (Frost & Hanson, 2015:23). In the South African context, tax disputes may be appealed by the taxpayer or SARS to the extent of the Supreme Court of Appeal (SARS, 2015). In addition, an appeal against the decision of the Supreme Court of Appeal, which relates to disputes of a constitutional matter, may be lodged with the Constitutional Court (Johannes, 2014:7). The Constitutional Court is the highest court for all constitutional matters (SARS, 2015).

As a result of the above mentioned, the litigation platforms available to the South African taxpayer or SARS indicate that dispute resolution process in South Africa is, in material respects, similar to that of Australia as in both countries taxpayers and tax authorities may appeal to the highest courts to resolve disputes.

Table 2 below provides the respective timeframes in which an objection or appeal is to be lodged with the respective court or tribunal. It is apparent, from the table, that South Africa has the least number of days to object or appeal to the decisions of a court. South African legislation, however, makes provision for the extension of the timeframe in which an objection or appeal may be lodged. This indicates that the intent to resolve disputes in a timely manner is present.

Table 1 below summarises the main aspects of the dispute resolution platforms available in South Africa and Australia.

Table 1: The available tax dispute resolution platforms

	South Africa	Australia
	Process available to resolve a tax dispute?	Process available to resolve a tax dispute?
Alternative Dispute Resolution	Yes	Yes
Independent Review	No	Yes
Settlement	Yes	Yes
Courts and tribunals:		
Tribunal: Tax Board (South Africa) / ATT (Australia)	Yes	Yes
Dedicated Tax Court	Yes	No
First level general court: High Court (South Africa)/ Federal Court (Australia)	Yes	Yes
Second level general court: Supreme Court of Appeal (South Africa) / Full Court of the Federal Court (Australia)	Yes	Yes
Third level general court: Constitutional Court (South Africa) / High Court (Australia)	Yes	Yes

Table 2: Time frames for lodging objections and appeals

	South Africa	Australia
Tribunal: Tax Board (South Africa) / ATT (Australia)	21 days	60 days
Dedicated Tax Court	21 days	Not applicable
First level general court: High Court (South Africa)/ Federal Court (Australia)	21 days	60 days

Conclusion

In both countries, ADR processes and settlement processes are available to taxpayers prior to the consideration of litigation. South Africa, however, trails behind Australia in the following respects:

- Specific elements of ADR processes available in Australia i.e. Determination and Advisory processes are not currently available to South African taxpayers; and
- An independent review process is also not available to South African taxpayers at present.

A tax dispute that is subject to litigation in South Africa may be appealed, by the taxpayer or SARS, to the High Court, Supreme Court of Appeal or the Constitutional Court (should the matter be of a constitutional nature). This indicates that the litigation platforms available to South African taxpayer or SARS are adequate as appeals may be heard by various levels of courts and by the highest court in the country (SARS, 2015). The period, however, in which a South African taxpayer or SARS may process an appeal is shorter than that in Australia. This may be considered a notable disadvantage to South African taxpayers. Provision is made for the extension of the appeal period, however this applies in limited circumstances. This indicates that intent to resolve tax disputes in a timely manner is present, although SARS may want to consider relaxing the time frames.

South Africa’s dispute resolution platforms per section 9 of the TAA are, in all material respects, similar to those available in Australia, with the exception of the independent review and specific elements of the ADR process. It is therefore reasonable to conclude that majority of the South African tax dispute resolution platforms are in agreement with Australian platforms and are thus adequate to resolve tax disputes.

Going forward, SARS may want to consider wider jurisdiction of Tax Board (such as increase the monetary value of appeals that the Tax Board may hear), Independent Review panel for large companies, a wider ADR scope and more relaxed time frames.

CONCLUSION

The objective of this research report is to determine whether the tax dispute resolution process as per section 9 of the TAA is adequate, in comparison to Australia, in providing platforms that address objections and appeals by way ADR processes, independent review, settlement and litigation.

South African taxpayers have the right to request reasons for an assessment and if not satisfied with these reasons, the taxpayer may object (South African Revenue Service, 2014a: 31). SARS may, in turn, allow, partly allow or disallow an objection (Tax Administration Act, section 106(2). A taxpayer who is subject to the disallowance of an objection may then appeal the assessment through the ADR process, Tax Board or Tax Court (Haupt, 2015: 1015). The High Court, Supreme Court of Appeal and the Constitutional Court are available platforms to address appeals.

Australian legislation aims to preclude tax disputes from occurring (Australian Taxation Office, 2015a). Should these tax disputes, however, occur the objective of the ATO is to resolve them efficiently and effectively (Australian Taxation Office, 2015a). ADR, independent review and settlements are techniques available to resolve tax disputes. Litigation is, however, available to the taxpayer or the ATO if the aforementioned mechanisms do not resolve the tax dispute in a satisfactory manner (Frost & Hanson, 2015: 22).

South Africa, in comparison to Australia, promotes the same platforms, with exception of an independent review process and specific elements of the ADR process. In conclusion, the DRP as per section 9 of the TAA that provides the platforms to address tax disputes in South Africa may be considered adequate as majority of the material dispute resolution platforms available to taxpayers and the tax authorities in Australia are available to South African taxpayers and SARS.

Going forward, SARS may want to consider wider jurisdiction of Tax Board (such as increase the monetary value of appeals that the Tax Board may hear), Independent Review panel for large companies, a wider ADR scope and more relaxed time frames.

Recommendations for future research:

For future research purposes, it is recommended that consideration be provided to the tax dispute resolutions platforms available in the United Kingdom.

ANNEXURE 1

Section 9 of the TAA and the rules promulgated under section 103 of the TAA provide the tax dispute resolution process for the following Acts:

- Diamond Export Levy (Administration) Act, 14 of 2007;
- Diamond Export Levy Act, 15 of 2007;
- Employment Tax Incentive Act, 26 of 2013;
- Estate Duty Act, 45 of 1955;
- Income Tax Act, 58 of 1962;
- Merchant Shipping (International Oil pollution Compensation Fund) Administration Act, 35 of 2013;
- Merchant Shipping (International Oil pollution Compensation Fund) Administration Act, 36 of 2013;
- Mineral and Petroleum Royalty Resources (Administration) Act, 29 of 2008;
- Mineral and Petroleum Royalty Resources Act, 28 of 2008;
- Skills Development Levies Act, 9 of 1999;
- Transfer Duty Act, 40 of 1949;
- Unemployment Insurance Contributions Act, 4 of 2002; and
- Value-Added Tax Act, 89 of 1991 (South African Revenue Service Act 34, section 4(1)(*a*)(*i*) and SARS, 2014a:18).

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