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Corporate governance: A well-qualified and experienced audit committee

Sethopo Mamotheti

Student number: 10646605

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Abstract

The purpose of this study was to identify collective skills and background that audit committee members must have in order to be effective. In addition, the study examined the extent of prevalence of each skill identified, which can then be deduced into model to work out the right combination of audit members according to qualifications, experience and skills that they possess. The model can thus be used in selecting candidates to serve in audit committees.

Two categories of samples selected from a list of the top 100 companies for 2008 to 2010 and a combined list of the bottom 20 companies for the 2005 to 2009 and the bottom 20 companies for 2010, compiled by Inet Bridge and published by Business Times, were used in the study. Profiles of audit committee members of companies selected in the samples, which were published in the annual reports of the respective companies in which they were serving as audit committee members were consolidated with those published on Bloomberg Business week website, <http://investing.businessweek.com/research/stocks/people/person>, and thereafter summarized. The profiles indicated qualifications, professional background, business management experience and a list of companies that each member was serving or had served as a member of board of directors.

Skills categories adopted in Audit Committee Institute (2006) were used in analysing expertise, experience and background of audit committee members, namely financial, business management, corporate director, legal and industry specific background. The variables were statistically tested using t-test and chi-square. The results of the study revealed that finance, corporate director and business management were necessary for an audit committee to function effectively. The study further found that legal and industry specific background were least considered skills in the composition of audit committees.

Keywords

Audit committee, Audit committee composition, Audit committee effectiveness, Education; skills and background of audit committee members, Collective skills and experience of audit committee, Corporate governance.

Declaration

I declare that this research project is my own work. It is submitted in partial fulfillment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

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Sethopo Mamotheti

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Date

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From the formative stages of this dissertation, to the final draft, I owe an immense debt of gratitude to my supervisor, Thea Pieterse, whose guidance and support enabled me to develop an understanding of the subject and how to conduct research thereon. This dissertation would not have been possible without her sincere and professional guidance.

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I owe my deepest gratitude to my family whose support and encouragement carried me through rough seas and weather.

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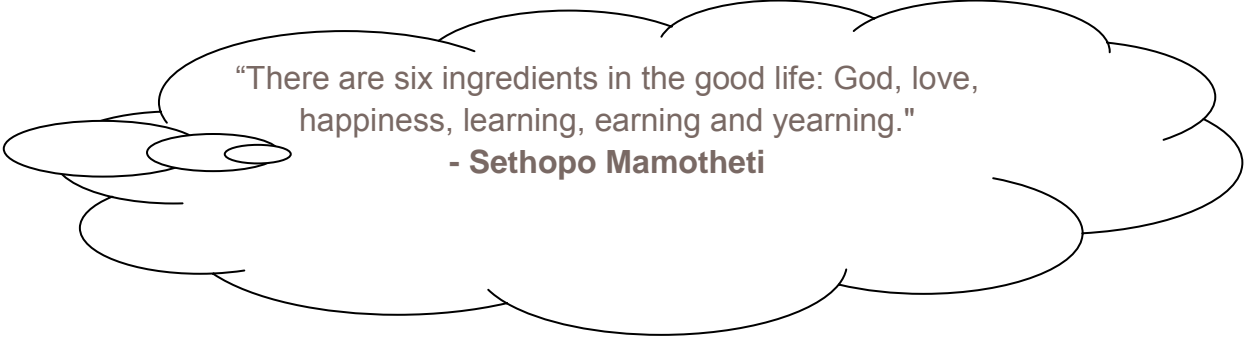
Lastly, I offer my regards and blessings to all of those who supported me in any respect during the completion of the study.

This dissertation is dedicated to:

- My late father, Mapatene Mamotheti, who always inculcated in me to stretch my abilities and aim for higher and better things in life. Lesson learnt and his memories will shape my life forever.

- My family who have never failed to give me moral support.

- God Almighty, for love, blessings and watching over me every step of the way.



"There are six ingredients in the good life: God, love, happiness, learning, earning and yearning."

- **Sethopo Mamotheti**

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1 Chapter 1: Introduction to Research Problem

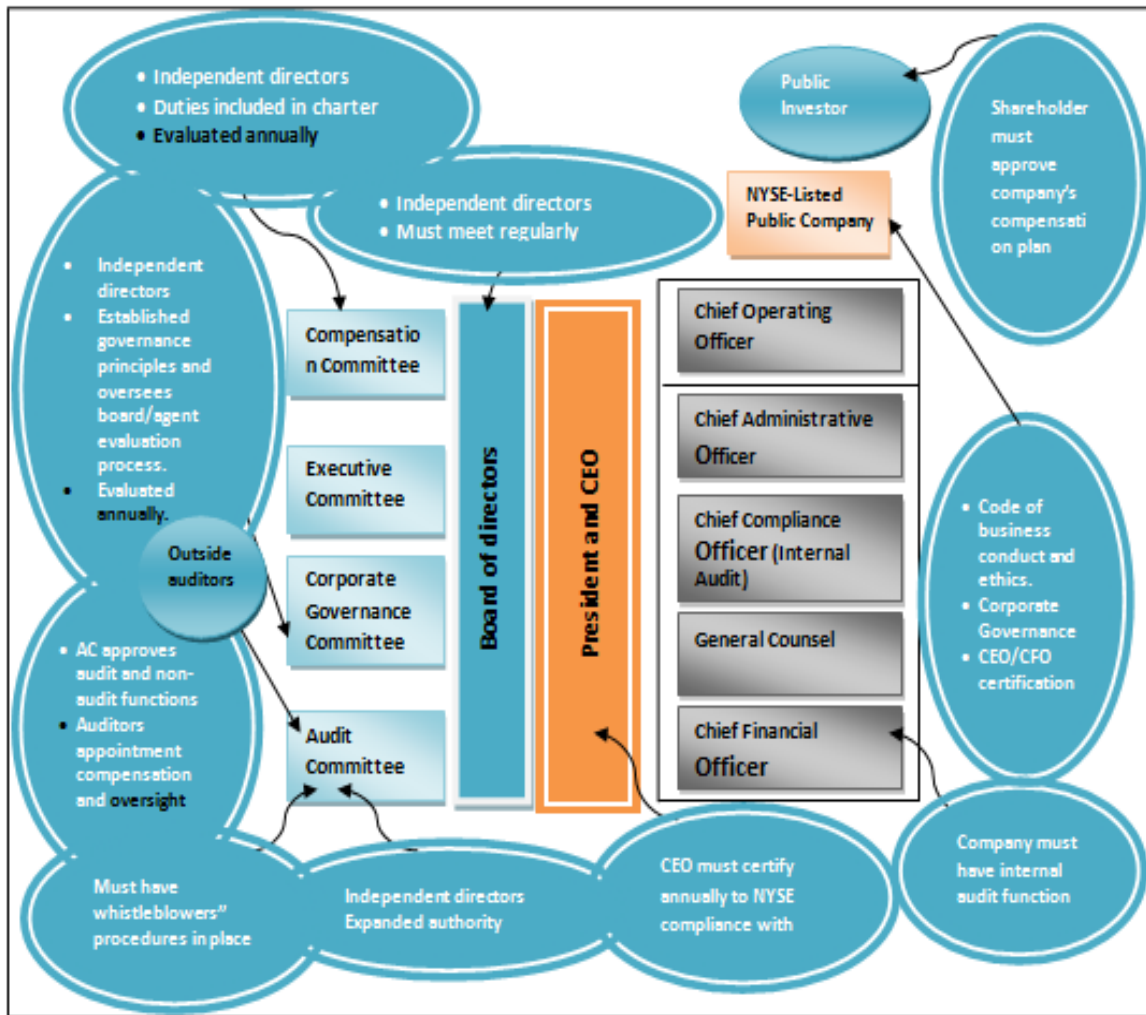
1.1 Introduction

Corporate governance is an essential part of business and is regarded as a prerequisite in various countries (King Committee, 2009). The committee pointed out that in the United States of America for example, a significant part of its governance had been codified in an act of Congress known as the Sarbanes-Oxley Act and the statutory regime was known as ‘comply or else’ with legal sanctions for non-compliance.

King Committee (2009) reported that 56 of the Commonwealth countries, including South Africa, 27 states in the European Union and United Kingdom, had opted for a code of principles and practices on a ‘comply or explain’ basis, in addition to certain governance issues that were legislated. King Committee (2009) supported the principles and practices of voluntary compliance as King Committee, 2009, p.5, cited that “There is an important argument against the ‘comply or else’ regime: a ‘one size fits all’ approach cannot logically be suitable because the types of business carried out by companies vary to such a large degree”. The same principle was adopted by the United Nations in their code (King Committee, 2009).

In South Africa, Johannesburg Stock Exchange requires all companies listed to comply with King Code of corporate governance, in line with international best practices, (Johannesburg Stock Exchange, 2011). The same approach was adopted by the United States Stock Exchanges which prescribed the establishment and operation of audit committees with at least three independent, financially-literate directors as a requirement for all United States listed companies (Vera-Munoz, 2005). Figure 1 below depicts New York Stock Exchange listing standards.

Figure 1: NYSE listing standard on corporate governance (Vera-Munoz, 2005).



1.2 Research problem

Audit committee's responsibilities are not limited to the evaluation of financial numbers but they are in addition required to specifically have oversight on financial reporting risks, internal financial controls, fraud risks as it relates to financial reporting and IT risks as it relates to financial reporting (King Committee, 2009). KPMG Audit Committee Institute (2010) survey found that 86% of South African companies surveyed, had in addition to financial reporting, given their audit committee primary oversight responsibility on financial risk, 76% legal/regulatory

compliance risks, 71% IT security and privacy risks, 57% operational risks and 81% strategic risks.

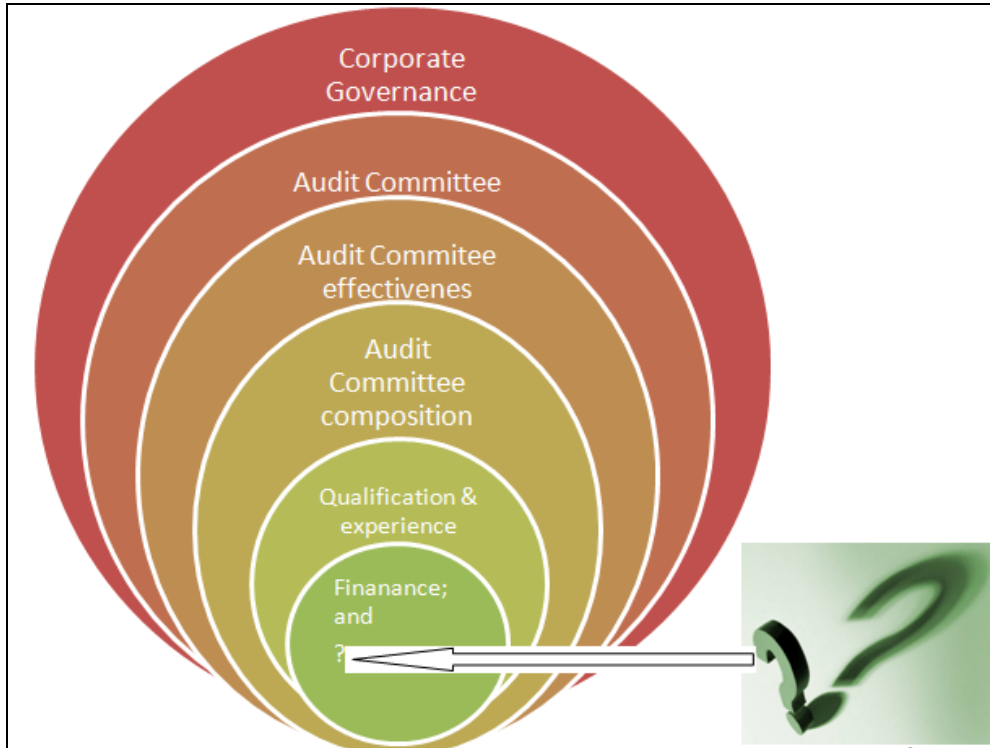
King Committee (2009) proposed that the audit committee be made up of at least three members, all of whom should be independent non-executive directors with skills and experience that collectively are sufficient to enable them to carry out their responsibility effectively and diligently. The committee did not prescribe or provide guideline on what constitutes a collectively well qualified committee. This is left to the discretion of board members to decide.

Companies Act (2008) requires that at least one-third of a company's audit committee members at any particular time must have academic qualifications or experience in economics, law, corporate governance, finance, accounting, commerce, industry, public affairs or human resource management. This however poses problems as the skills and background mentioned in Companies Act (2008) are general rather than specific as they cover almost all fields found in a business organisation.

The variety of responsibilities that audit committees are given requires that members should collectively possess a mixture of skills and competence to execute their duties effectively. Audit committees are however composed of a limited number of people and therefore companies have dilemma deciding which (mixture) of those qualifications or experiences as stated in the Companies Act (2008), are critical for effective functioning of audit committees. The situation is further made worse, in South Africa by shortage of people who have necessary skills to serve in audit committees as highlighted by Cascarino and Van Esch (2005).

The relation between corporate governance and audit committees and the dilemma faced by board of directors in choosing the right mixture of skills given limited audit members available is shown in figure 2 below.

Figure 2. Dilemma in the selection and composition of audit committee members



1.3 Research motivation

KPMG Audit Committee Institute (2010) survey concluded that audit committees around the world share a number of concerns regarding key areas of oversight as their companies work to stay on track in a volatile and uncertain economy. The survey respondents were asked to choose two out of six critical areas that needed to be addressed to improve the effectiveness of their audit committees. Better committee composition, which included the right mix of members, relevant experience and skills set was identified by 48% of the South African companies as critical issue that was lacking and required to be addressed to improve the effectiveness of their audit committees. Better committee composition and better information which was rated 43 % were the two highest rated areas that audit committee identified as matters that needed to be improved (KPMG Audit

Committee Institute, 2010). The survey did not identify the skills and experience mix needed to improve the effectiveness of the audit committee.

King Committee (2009) assigns various responsibilities to audit committees, which among others are the following:

- Oversight of financial, reporting risks; internal financial controls; fraud risks as it relates to financial reporting; and IT risks as it relates to financial reporting.
- Have regard to all factors and risks that may impact on the integrity of the integrated report.
- Review and comment on the financial statements included in the integrated report.
- Review the disclosure of sustainability issues in the integrated report to ensure that it is reliable and does not conflict with the financial information.
- Recommend to the board to engage an external assurance provider on material sustainability issues.
- Ensure that the combined assurance received is appropriate to address all the significant risks facing the company.

Numerous responsibilities, in addition to those proposed by King Committee (2009) that companies assign to their audit committees as highlighted in the KPMG Audit Committee Institute (2010), served as a motivation to conduct research that seeks to identify mixture of qualification and skills to have a collective skilled audit committee.

A survey based on respondents' opinion in assessing the significance of specific qualification and background of audit committee was conducted in 2006, in an attempt to identify required skills and qualification (Audit Committee Institute, 2006). This research endeavored to eliminate subjectivity by analysing observed data as opposed to a subjective manner of self assessment.

1.4 Research objectives

The aim of the study was to estimate the right combination of qualifications, experience and skills that an audit committee should have in order to be effective. The outcome could be used by boards of directors of companies in refining processes of choosing and appointing audit committee members. It could also be used as a yardstick to assess the efficiency and effectiveness of audit committee.

2 Chapter 2 : Literature Review

2.1 Introduction

The literature reviewed in this chapter investigated key themes related to the research problem considered in the study and thereby creating a foundation for understanding the academic motivation for the study. The literature review covered the following themes:

- *Corporate governance*
Reasons for a need to have corporate governance in an organization.
- *Link between corporate governance and audit committee*
Role of audit committee in corporate governance.
- *Link between a company and an audit committee performance*
Evaluating whether audit committee performance influences companies performance.
- *Statutory obligation imposed on audit committees*
Evaluating whether there were legal obligations that audit committee members assume by virtue of serving on audit committees.
- *Measurement of audit committee performance*
Reviewed various ways that audit committees' performances are measured.
- *Skills that have already been identified as necessary for an effective audit committee*
Reviewed skills that had already been highlighted by literature as necessary for audit committee.
- *Variables that make up skills*
Reviewed models applied to identify competencies.
- *Various ways of selecting audit committee members*
Explore various ways that organizations had adopted in selecting audit committees.

2.2 Corporate governance

Kyereboah-Coleman and Amidu (2008) noted that corporate governance had been a topical issue in developed economies and especially among very large firms. They reported that the concept had been at the height of policy dialogue on the African continent in recent times.

The Organisation of Economic Co-operation and Development described corporate governance as the structure through which shareholders, directors and managers: set the board objective of the company, the means of attaining those objectives and monitoring performance (Soederberg, 2003). Good corporate governance plays the role of protective shield for various interests at stake in the organisation setting (Brustein & Filho, 2011). Soederberg (2003) went so far as to argue that the ultimate aim of adopting good corporate governance measures was to ensure that investors (suppliers of finance, shareholders, or creditors) get a return on their money.

2.3 Audit committee as a tool of corporate governance

Campos (2005) viewed the function of audit committees as one of many gatekeepers. Audit committees improve board oversight and monitoring of management and external auditors (Rowland, 2002). Kyereboah-Coleman & Amidu (2008) acknowledged the argument that had been advanced which regarded the audit committee as the most reliable entity to safeguard public interest and the presence of audit committees enhances firms' financial performance. Vera-Munoz (2005) noted that interest in audit committee effectiveness as part of corporate governance had increased dramatically with specific emphasis on audit committee composition and duty of care (or diligence).

Sarbanes-Oxley sought to address accounting irregularities reported by the Wall Street Journal in September 1998 through different means, among other things, through strengthening board and specifically audit committee's independence (Rowland, 2002).

"The financial worlds had been buffeted by accounting scandals at several large corporations that had cost public billions of dollars in the year prior to the Chairman's speech. Even the bluest of the blue chip companies, General Electric, was allegedly manipulating its financial statements to smooth its earnings and report numbers that were either too low nor too high" (Rowland, 2002, p.171).

2.4 The link between corporate governance and law

King Committee (2009) argued that good governance should not be separated from the law and it would be inappropriate to unhinge governance from the law. The starting point of any analysis of the link between corporate governance and law was the duty of directors and officers to discharge their legal duties (King Committee, 2009). The committee highlighted the duties of directors to be of care, skill and diligence as well as fiduciary.

Campos (2005) cited the SEC v. O'Shaughnessy case wherein the Commission charged the Chairman of the Candie's shoe company's board and two other directors with securities fraud for participating in and/or ignoring red flags while the company was engaged in fraudulent accounting practices. He argued that directors must ask tough questions and get involved. Most importantly, when something that should raise an eyebrow comes to the attention of a director, that director must follow up and investigate. He emphasised that by pointing out that

"The director cannot ignore red flags or even pink ones" (Campos, 2005, p.534).

Hamdani and Kraakman (2007) highlighted the fact that directors could face a risk of personal liability under United States corporate law if the board was grossly negligent in its procedures i.e. by dealing with obviously important matters in a

cursory fashion or if the failure to question obvious wrongdoing was so blatant as to suggest intentionality and bad faith. Rowland (2002) shared the same sentiments as Hamdani and Kraakman (2007) when he concluded that unless the audit committee was reckless, no liability would occur.

Hamdani and Kraakman (2007) however conceded that it rarely happened as the vast majority of lawsuits were either dismissed or settled with the companies and their insurers picked up the tabs. Under United States law, directors enjoy protection from liability for failing to detect misconduct or for failing to attend to other aspects of company business on two levels: the level of substantive law and the level of private risk-shifting devices authorised by law (Hamdani & Kraakman, 2007). In South Africa provision exists for relieving directors of liability in certain circumstances, either by the courts or if permitted by the company memorandum of incorporation, but not in the case of gross negligence, willful misconduct or breach of trust (King Committee, 2009).

2.5 Measurement of efficiency of audit committee

Abbott, Parker, and Peters (2004) found that the likelihood of financial restatement was less for firms with higher audit committee independence and more audit committee meetings. Abbott, et al. (2004) concluded that the higher the proportion of independent non executive director, the higher efficiency of the board. The 1998 Blue Ribbon Committee report, which was issued by a committee that was sponsored by the New York Stock Exchange and NASDAQ, pointed to the studies that showed a correlation between audit committee independence and a higher degree of active oversight and lower instances of financial statement fraud (Campos, 2005). Sori (2007) concurred with Campos (2005) as he found that the number of meetings held and attended by audit committee members served as an indication of effectiveness of the committee.

2.6 Composition of an audit committee

2.6.1 Accounting skills and expertise

Sarbanes-Oxley Act requires the establishment of audit committee as one of the many means to enhance corporate governance and singled out financial literacy and expertise as the requisite skill needed by the audit committee to perform its duties effectively (Keinath and Walo, 2004). DeZoort, Hermanson, Archambeault, and Reed (2002) described an effective audit committee as a committee that has qualified members with authority and resources to protect stakeholder interest by ensuring reliable financial reporting, internal controls and risk management through its diligent oversight efforts.

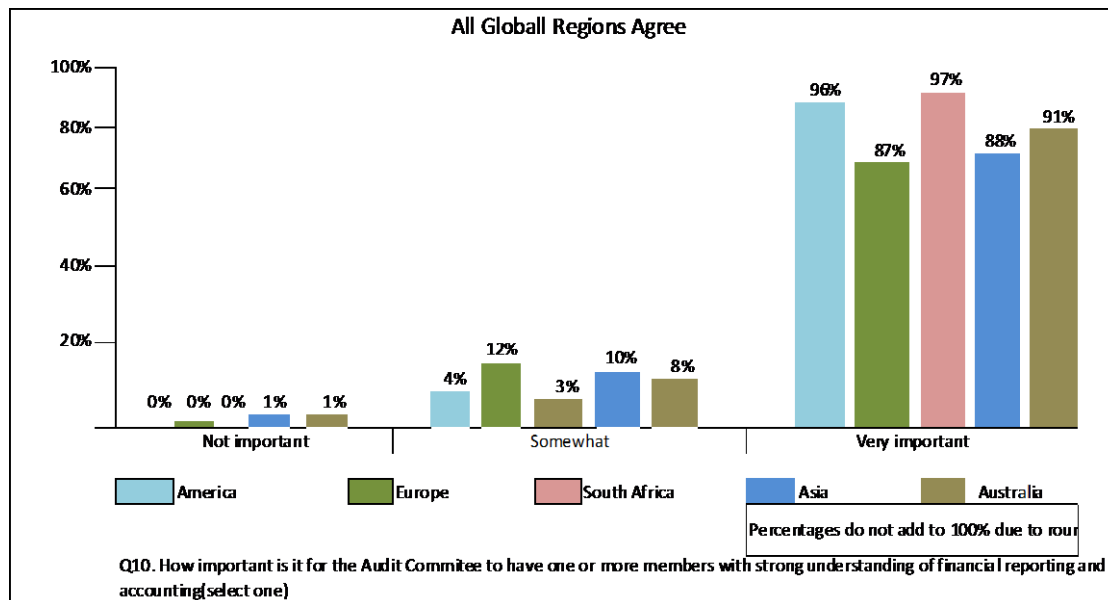
Rowland (2002) contended that to improve the audit committee's technical ability to monitor carefully the financial reporting process, all audit committee directors must be financially literate and that every audit committee must have at least one member with financial management or accounting expertise. Campos (2005) remarked that it was not an enormous stretch to say that audit committees needed to have the ability to truly understand and probe the company's numbers they are tasked to evaluate.

Rowland (2002) shared the same view as Campos (2005) when he commented that "it would be prudent for independent directors, and particularly audit committee members, to become knowledgeable about accounting shenanigans that have become pervasive in their company's industry, as highlighted through SEC enforcement actions. For example, in the software technology industry, accounting problems have been pervasive where revenues are prematurely and improperly recognized for long-term services tied to sales, in violation of SOP 97-2. In the Internet advertising industry and telecom industry, illegal "round-tripping" has been a pervasive accounting problem" (Rowland, 2002, p.538).

Rahmat, Iskandar and Saleh (2009) concluded that financial distress was significantly associated with financial literacy of audit committee members. Their results showed that companies with financially literate audit committees were able to perform better and hence were free from financial distress, compared with companies whose audit committees were less knowledgeable about accounting and finance. They argued that audit committee members with enough knowledge of accounting and finance were able to monitor and review more effectively the operational and financial reporting of the company.

Audit Committee Institute (2006) found that 92% of respondents surveyed between 1 November 2005 and 31 January 2006, regarded financial reporting/expertise to be very important for audit committee to have. The survey further found that 97% of the South African respondents rated financial reporting/expertise as very important. Figure 3 below depicts the results of the survey.

Figure 3: Survey results: Importance of financial reporting/expertise in the audit committee (Audit Committee Institute, 2006)



Audit Committee Effective Centre (2010) acknowledged the recent accounting developments whereby various accounting/financial standards adopted by various countries were gradually converging into International Financial Reporting Standards. In the United States, the Securities and Exchange Commission unanimously affirmed its belief that a single set of high-quality, global accepted accounting standards would benefit the United States investors and also reaffirmed its support for the continued convergence of accounting standards (Audit Committee Effective Centre, 2010). Subsequent to the Securities and Exchange Commission's affirmation, audit committees in the United States were tasked with the assessment of the impact of the convergence and overall oversight on the implementation thereof in their companies (BDO, 2010).

Johannesburg Stock Exchange (2011) announced on 16 February 2011 that all financial statements published on or after 1 January 2011 would be eligible for review for International Financial Reporting Standards compliance and should the review identify areas of concern, audit committees would receive and deal with the concerns relating to accounting matters.

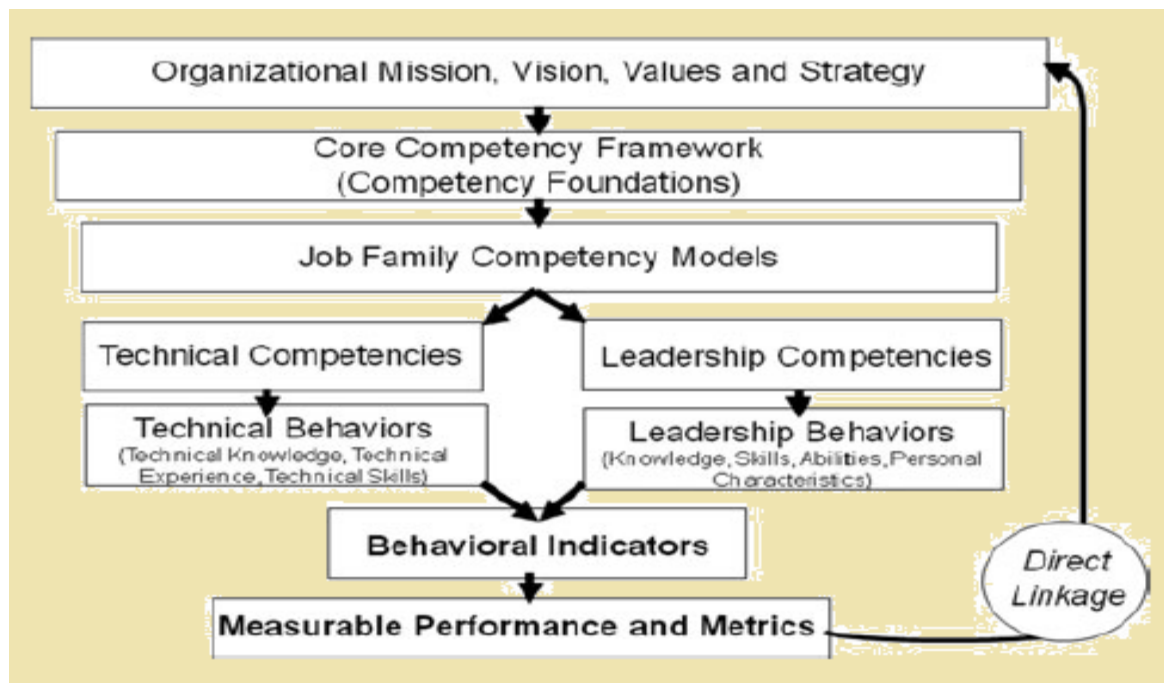
2.6.2 Other skills and expertise required

Enron provided an example which countered the proposition that financial literacy alone, among audit committee members lead to effectiveness (Turley and Zaman, 2004). Tyson (2003) put forward that diversity in the background, skills and experience of non-executive directors enhanced audit committee's effectiveness as it was likely to provide broad mix of relevant experience and foster the independence of mind as well as the probing and challenging attitude. Bennet & Robson (2004) noted that diversity of directors' composition empowered boards of directors in decision making as the greater the diversity of directors of a board, the lesser the dependency on or the need to seek advice from external sources.

2.7 Competencies

Capion et al. (2011) defined competency as a combination of knowledge, skills, abilities and other characteristics with behaviour needed for effective performance in the jobs in question. A given competency may include both a particular knowledge area and a skill or set of skills, in applying that knowledge effectively in a particular context (Capion et al., 2011). Figure 4 illustrates competencies framework.

Figure 4: Competency Framework (Campion et al., 2011).



Brustein and Filho (2011) held a view that professionals were expected to combine functional competencies, based on technical and management knowledge and political competencies that permeate the inter-relations between all interest groups.

2.5.1 Experience

Social psychology studies suggested that individuals attitudes emanates from previous experience or behaviour (Westphal and Fredrickson, 2001). Brustein and Filho (2011) suggested that working experience was one of the fundamental

elements of competency construction process. Westphal and Fredrickson (2001) identified strategic experience that matched the company's needs as the most important predictor of director effectiveness rather than independence.

Westphal and Fredrickson (2001) noted many studies which suggested that top managers who held board appointments in different industries which presumably follow different strategic practices, were more likely to initiate change at their own firm as their involvement on other boards provides an important source of good strategic practices.

2.5.2. Education

Filatotchev, Jackson, Gospel, and Allcock (2007) in their research conducted on behalf the United Kingdom's Department of Trade industry identified competence of the audit committee as one of the eighteen key drivers of good corporate governance in the United Kingdom context. Filatotchev et al. (2007) suggested that nominal independence of audit committee members was insufficient to improve audit quality without sufficient qualification.

Bennett & Robson (2004) found that there was a proven positive relation of higher levels of education among entrepreneurs and their willingness to do more detailed accounting and monitoring. They concluded that qualifications levels of boards had positive influence on board members' effectiveness. Rahmat, Iskandar and Saleh (2009) contended that educational background was an important characteristic to ensure audit committees perform their roles effectively.

2.5.3 Combination of Education and experience

A study conducted by Gault and Miller (2004) suggested that there was a positive relationship between qualifications and experience and a person's effectiveness at workplace. Schneider, Gunther, and Brandenburg (2007) highlighted formal qualification, especially higher (tertiary) education as one important component of

human capital. Schneider et al. (2007) viewed tacit knowledge matter, which developed overtime as essential and complementary to education.

Steffen and Stephan (2008) argued that qualification, even if augmented and implemented by working experience did not alone achieve higher labor productivity levels. They proposed that firms must additionally invest in training their staff to update and possibly specialise their qualifications to significantly affect efficiency and competitiveness. Morrow and Pastor (2007) indentified creation and adherence to a written charter that identifies audit committee functions, authority and responsibilities and skills and experience its members must possess for the committee to discharge its duties and function effectively, as the first of eight habits of highly effective audit committees.

2.8 Selecting audit committee members based on rules and regulations

Maharaj (2009) argued that there was compelling evidence that nominating candidates to the board based simply on formal rules and regulations had not yielded more effective governance. He highlighted that one of the problems of nominating board members based on rules and regulations was that the process neglected the affective dynamics of board behaviour and board process.

“For example, choosing board candidates who are independent (not part of a company’s management), a rule imposed by the Toronto Stock Exchange (TSX) guidelines, may ensure that an organisation remains listed on this lucrative exchange. However, it does not ensure that the candidates have the necessary knowledge or are well versed in the company’s business activities to serve on a particular board” (Maharaj, 2009, p107).

Maharaj (2009) held a view that having independent board members did not ensure that they ask tough questions of management or that they had an extensive network from which to draw for advice on strategic issues. He viewed the latter as equally important areas of board governance that could not be ignored when

choosing candidates for the board and the questions should not be suppressed in favour of concentrating solely on formal concerns such as independence.

Hansell (2003) pointed out the huge corporate scandals such as Enron that happened although the company was supervised by an all-star board, adhered to the rules and regulations, with qualifications far beyond what any regulator would ever impose. He suggested that corporate scandals had highlighted poor corporate governance that occurred despite adherence to formal regulations. Monks (2003) summarised his views on governance code as follows:

“The publication of governance codes creates an atmosphere of sensitivity, but - by itself - is not effective to transform corporate functioning”, (p120).

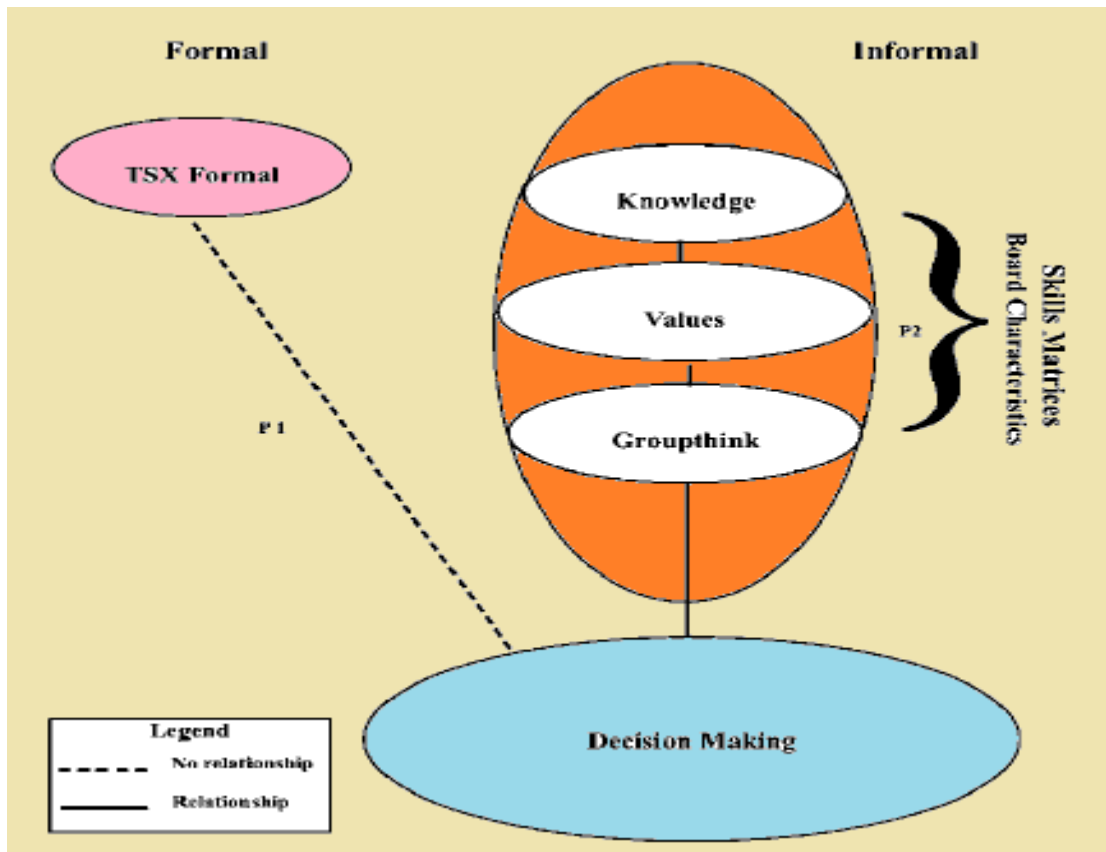
2.9 Using a matrix to outline the experience and knowledge required

Maharaj (2009) observed that many boards use a skill matrix to outline the experience and knowledge required by the board member based on industry trends and the corporation’s specific needs. He viewed the exercise as ensuring that there was congruence between the corporation’s needs and the board members’ capabilities and that it helped to ensure that board members had sufficient depth of knowledge to make an adequate contribution and served to highlight board members who had the knowledge and experience required by the board.

Maharaj (2009) proposed that the first step in selecting suitable candidates should begin with formulating a skill matrix applicable to the pertinent organisation by outlining the need of that organisation. He regarded the skills matrix as a screening process in determining whether the boards of directors, as individuals and collectively, had the appropriate competencies to fulfill their responsibilities. He considered effective corporate governance as more than the reparation of internal controls or following the checklist approach to rules and regulations. Corporate

governance decision requires formal and informal system which is illustrated in figure 5 below.

Figure 5-Corporate Governance decision making model (Maharaj, 2009)



The formal systems referred to guideline rules imposed by authorities and organisations that companies belong to such as stock exchanges. The process included identifying the principal risks of the corporation's business and ensuring the implementation of appropriate systems to manage those risks; assessing the integrity of the corporation's internal control and management information systems (Maharaj, 2009).

According to Maharaj (2009), the informal system was beyond adherence to the formal system (rules and regulations) and looked at three major characteristics:

- (1) the actual depth and breadth of knowledge of the directors; knowledgeable about finances, their industry or environmental issues affecting the corporation.
- (2) the motivation, level of engagement and questioning of board members groupthink. It referred to a deterioration of mental efficiency, reality testing and moral judgment that results from in-group pressures, which was succumbing to the persuasive power of their fellow board members peers, often called groupthink; and
- (3) the values of board members. Valued both personal (such as beliefs, education and social status) and corporate (as expressed in a corporation's code of ethics, vision and mission statements).

Maharaj (2009) regarded the three characteristics as the roadmap that provides the means for nominating the best candidates to the board.

2.10 Relationship between corporate governance and company's performance

Abdullah, Shah, and Hassan (2008) argued that investors reward companies that have superior governance with higher valuations. They pointed out a number of studies that had found a strong positive relation between corporate governance and firm's performance, for example a study of United States markets found that portfolios of companies with strong shareowner rights protections outperformed portfolios of companies with weaker protections by 8.5% per year, a similar study in Europe found annual disparities of 3.0% and another study in Germany showed that a portfolio consisting of the best governed companies outperformed a portfolio of the worst governed companies by a statistically significant average of 2.33% per month.

Abdullah, Shah, and Hassan (2008) noted that similar trend between corporate governance and company performance was also observed in emerging markets when an analyst in Malaysia found that companies with good corporate governance generated five year return well above average studies. They recognised an effective audit committee as one of the key players in good corporate governance that brought companies to a higher level of performance.

The investigation by Rahmat, Iskandar and Saleh (2009) of whether there was any difference in the characteristics of audit committee between financially distressed and non-distressed companies listed on the Bursa Malaysia found that financial distress among big companies was a sign of weak corporate governance of which the audit committee was one of the elements. They concluded that audit committee contributed to the development of the strategic plan of the company and was expected to provide input and recommendations to the board with regard to any financial or operational matters.

Craven and Wallace (2001) credited an effective audit committee with focus on improving the company's performance and competitiveness, particularly in a changing business environment which was beyond the control of the company. They implied that audit committee oversight and input brought about enhancement in an organisation's competitiveness and thereby contributing to improvement of companies' results.

An effective audit committee was expected to focus on the optimisation of shareholders' wealth and prevent the maximisation of personal interests by the top management (Wathne and Heide, 2000). The greater the percentage of affiliated directors in the audit committee, the lower the probability that financially distressed firms would receive a going concern opinion from the external auditors (Carcello and Neal, 2000).

Gompers, Ichii and Metrick (2003) found a significant association between a corporate governance index built from 24 provisions and stock returns. They reckoned that an investment strategy where investors buy firms with the highest ranks in such index would yield substantial abnormal returns of 8.5%. They also observed that firms with weaker governance measures had generally lower accounting-based performance measures.

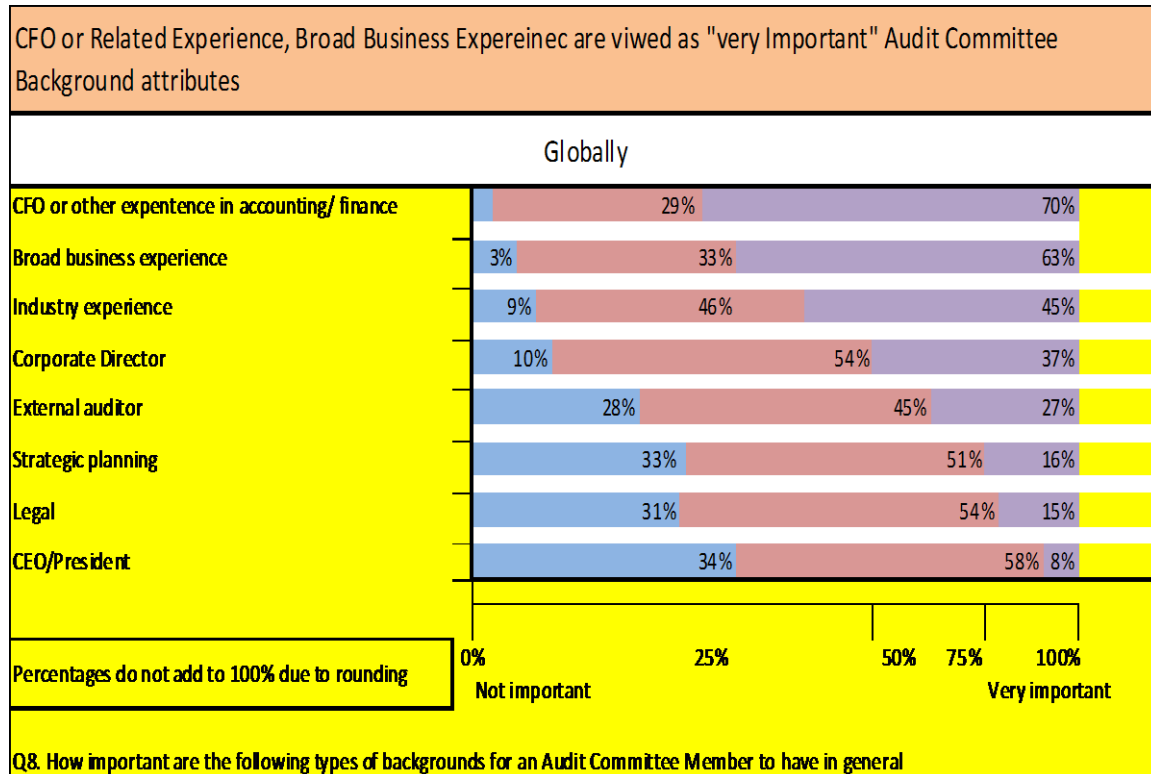
Hsu (2008) study found that post initial public offering, long term performance increased with financial experts on the audit committee and therefore the results suggested that an audit committee as a corporate mechanism was positively associated with post initial public offering performance. Kyereboah-Coleman and Amidu (2011) suggested that independence of the board and the presence of audit committees enhanced firms' financial performance.

In examining the role of corporate governance in the context of real activity-based earnings management and firms performance, Kang and Kim (2011) proposed that strong corporate governance reduced real activity based earnings, which improved an increase in firms performance.

2.11 Studies done on skills and experience of audit committee members

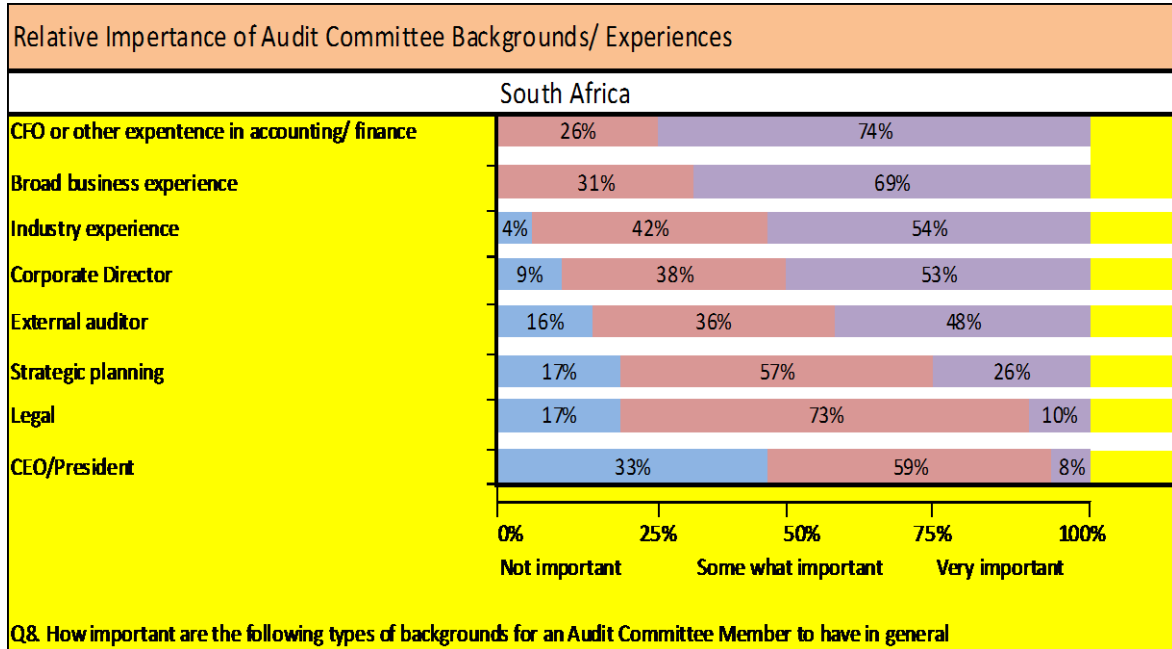
The results of a study conducted by Audit Committee Institute (2006) found that globally, majority of respondents rated Chief Financial Officers or accounting expertise as very important followed by broad business experience and corporate director respectively as shown in figure 6. Figure 6 further indicated that strategic planning skills, legal background and Chief Executive Officer/President experience were regarded by a substantial majority as not important for an audit committee member to have.

Figure 6: Survey results: Importance of different education background and experience in the audit committee-global - Audit Committee Institute (2006)



In the survey, South African respondents' opinion regarding the importance of finance, broad business experience, industry specific, corporate governance and external auditors were higher compared to the global average. The respondents' opinion on the importance of legal and CEO/President were however lower than the global average as indicated in figure 7 below.

Figure 7: Survey results: Importance of different education background and experience in the audit committee-South Africa- Audit Committee Institute (2006)



3 Chapter 3: Research Hypothesis

3.1 Introduction

This chapter details the study's research objectives with associated research hypothesis.

3.2 Research objectives

The main research objectives were:

Objective 1: to estimate a combination (of qualifications, experience and skills) that was consistent with an effective audit committee

Objective 2: to determine the recommended audit committee composition (i.e. the right combination of committee members based on their qualifications, experience and skills)

3.3 Research Hypothesis

3.3.1 Research Hypothesis 1: An audit committee should have at least one member who has qualification (or expertise) in finance in order to be effective.

3.3.2 Research Hypothesis 2: An audit committee should have at least one member who has broad business management experience in order to be effective.

3.3.3 Research Hypothesis 3: An audit committee should have at least one member who has qualifications (or expertise) in law in order to be effective.

3.3.4 Research Hypothesis 4: An audit committee should have at least one member who serves or has served on a board of directors in order to be effective

3.3.5 Research Hypothesis 5: An audit committee should have at least one member who has experience in the industry in which the company operates in order to be effective.

4 Chapter 4: Research Methodology

4.1 Introduction

This chapter details research process and methodology carried in achieving objectives mentioned in chapter 3. It describes the population, how the samples were selected from the population, data collecting tools, and data analysis tools/tests. Inherent limitations of the study is highlighted at the end of the chapter.

4.2 Population

The universe of the research was the 2008-2010 top 100, 2005-2009, and 2010 bottom 20 companies listed on Johannesburg Stock Exchange compiled by I-Net Bridge, published by Business Times and available on <http://www.timeslive.co.za/mul-timedia/archive>. The research focused on large listed organisations. The area of study was limited to the identification of skills and experience needed for an effective audit committee that is collectively well qualified and skilled.

4.3 Sample

Two categories of samples were used in the research. The first sample was made up of the top 30 companies that were consistently on the top 100 companies for the years 2008 to 2010. The second was a sample of the bottom 30 companies selected from a combined list of the bottom 20 companies for the 2005 to 2009 and the bottom 20 for 2010. Tables 1 and 2 represented the samples selected for research.

Table 1: Sample from bottom companies 2005-2010 selected from the list compiled by Inet-Bridge

Names of companies
Dialogue group
Queensgate
DRD gold
Blue financial services
Simeka
BioScience
Trans Hex
Beget
African Brick Centre
African Cell towers
BuildMax
Central Rand Gold
Kap International
Vunani
Super Group
Genrand MIB
Weane
Sappi
Rare
Sea Kay
Mustek
Sovereign foods
Jasco
RBA
Capital shopping Centres
Sentula Mining

African Dawn
Securedata
John Daniel
Dorbyl

Table 2: Sample from top 100 companies 2008-2010 selected from the list compiled by Inet-Bridge

Top 30 Companies
Capitec
Kumba
Shoprite
Assore
Famous Brand
Brimstone
Mr. Price
Basil Read
Pinnacles Holdings
Truworths
Northam
PSG
WHBO
African media
Resilient
Naspers
Aveng
Murray and Roberts
Advech
Octodec
Premium Properties

Illovo Sugar
Aspen Pharmacare
City Lodge Hotels
MTN Group
Invicta
Pangbourne Properties
Impala Platinum
Growthpoint Properties
BHP Billiton plc

4.4 Research design

This study was quantitative in nature. Secondary data on audit committee members' profile for both samples was collected from published annual reports of respective companies in which the members served. The profiles were further compared with those available on Bloomberg Business week website, [http://investing.businessweek.com/research /stocks/people/person](http://investing.businessweek.com/research/stocks/people/person), to check for completeness of information. The profiles indicated qualifications, professional background, business, management experience and a list of companies that each member was serving or had served as a member of board of directors.

Use of secondary data was preferred as the often time-consuming activities of setting up the research, approaching respondents, collecting information from respondents and recording information obtained in a way suitable for analysis was not necessary when using secondary data (Blumberg, Cooper, and Schindler, 2005). Additional reason for preferring secondary data was that shortcoming of subjectivity from respondents that at times might not reflect true picture of the subject under research, often associated with qualitative approach was minimised when using data from secondary source.

Profiles of each member were analysed and allocated a point for each skill that each member possessed. Skills were categorised into financial expertise, broad business experience, corporate directorship experience, legal background and industry specific background. The categories were adopted from the seven educational background and experience categories used in Audit Committee Institute (2006) research.

The following were the criteria used to classify skills of members:

- Finance
Member with financial and accounting expertise and chartered accountants or equivalent qualifications.

- Broad business management experience
Member who had vast business experience and/or and experience at strategic or executive management level in corporate business.

- Corporate Director
Member whose collective past or present board membership was more than three companies.

- Industry specific
Member with working and/or qualification in the field in which the company that the person is an audit member of, is trading.

- Legal
Members with legal background and/or qualifications.

Analytical tool or test

In order to determine the recommended audit committee composition (Research objective 2), an estimate of a combination of qualification, experience and skills that is consistent with an effective audit committee had to be made first. The estimate was based on the top 30 sample as their audit committee were assumed to be effective by virtue of their companies' performance. Sample mean of each of the five attributes was calculated to determine the combination. Values of sample mean were used as estimate to quantify the observed weight of each attribute.

However simply determining the combination consistent with the top 30 was not enough as it could well be possible that even bottom companies exhibit the same combination. If true, that would invalidate the claim that such combination was consistent with effective audit represented by a sample of top 30 companies in this study.

A simple comparison of the values for the top 30 and bottom 30, showed differences. However the possibility that such observed differences might had occurred merely by chance and thus might not provide basis upon which recommended combination of the attributes could be derived, was considered. In order to check whether such observations occurred by chance or not, significant tests for the differences between the sample means for attribute were conducted. Hypothesis tests concerning mean are among the common in practice (CFA Institute, 2011).

In carrying out the test, the following assumptions were made (CFA Institute, 2011):

- The samples were independent of each other;
- Population variances were unknown;
- Samples' variances were unequal, where

$$t = \frac{(\bar{X}_1 - \bar{X}_2) - (\mu_1 - \mu_2)}{\left(\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}\right)^{1/2}}$$

$$df = \frac{\left(\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}\right)^2}{\left(\frac{s_1^2}{n_1}\right) + \left(\frac{s_2^2}{n_2}\right)}$$

and \bar{X}_1 = Sample mean of a specific skill or background in the bottom 30 sample

\bar{X}_2 = Sample mean of a specific skill or background in the top 30 sample

μ_1 = Hypothesized value of the bottom 30 mean

μ_2 = Hypothesized value of the top 30 mean

s_1^2 = Sample variance of a specific skill or background in the bottom 30 sample

s_2^2 = Sample variance of a specific skill or background in the top 30 sample

n_1 = Sample size of the bottom 30 sample

n_2 = Sample size of the top 30 sample

Rejection point for hypothesis tests on population variances: Reject H_0 if the test statistics value was more extreme than the t-Critical two-tail value.

The degrees of freedom used in the above equation apply specifically to normally distributed population with assumptions that variances were unknown and unequal. The two target population fit the method as variances were unknown and there was no reason to assume that they were equal.

Furthermore, CFA Institute (2011) stated the requirements for t-test are as follows:

1. If population is normal, use the test even for sample size less than n .
2. If population is non-normal use the test provided the sample size is equal or greater than n .

Since the sizes of the two samples were 30 each, there was therefore no normality concern. Based on the above discussion, the t-test was therefore appropriate for this study.

Test of statistical significance of audit committee size

Arithmetic mean for committee size for both samples categories, namely bottom 30 and top 30, was calculated and compared. A two detailed t-test assuming unequal variances was performed on difference in mean size of committees between the sample groups to test statistical significance.

H_0 $U_1=U_2$

H_1 $U_1<U_2$ or $U_1>U_2$., where

U_1 = Sample mean of bottom 30

U_2 = Sample mean of top 30

When the above test results found that $U_1 \neq U_2$, a one tailed test was run to check which mean between U_1 and U_2 was bigger according to statistical significant. A further one tailed test was performed to verify the reliable of the second test.

Test of hypothesis-Objective 1

The test was run to check if the difference occurred by chance or was due to underlying population means. The following hypothesis tests were conducted:

1. Research Hypothesis 1: An audit committee should have at least a member who has qualification (or expertise) in finance in order to be effective.

$$H_0: U_{1\text{estimate}} < U_{\text{Mean estimate}}$$

$$H_1: U_{1\text{estimate}} \geq U_{\text{Mean estimate}}$$

2. Research Hypothesis 2: An audit committee should have at least a member who has broad business management experience in order to be effective.

$$H_0: U_{2\text{estimate}} < U_{\text{Mean estimate}}$$

$$H_1: U_{2\text{estimate}} \geq U_{\text{Mean estimate}}$$

3. Research Hypothesis 3: An audit committee should have at least a member who has qualifications (or expertise) in law in order to be effective.

$$H_0: U_{3\text{estimate}} < U_{\text{Mean estimate}}$$

$$H_1: U_{3\text{estimate}} \geq U_{\text{Mean estimate}}$$

4. Research Hypothesis 4: An audit committee should have at least a member who serves or has served on a board of directors in order to be effective.

$$H_0: U_{4\text{estimate}} < U_{\text{Mean estimate}}$$

$$H_1: U_{4\text{estimate}} \geq U_{\text{Mean estimate}}$$

5. Research Hypothesis 5: An audit committee should have at least a member who has experience in the industry in which the company operates in order to be effective.

$$H_0: U_{5\text{estimate}} < U_{\text{Mean estimate}}$$

$$H_1: U_{5\text{estimate}} \geq U_{\text{Mean estimate}}$$

In each of the above hypothesis, a one tailed t test (at level of significance $\alpha = 0.05$) was conducted and a 95% confidence interval was constructed for each of the U estimates.

The results of the hypothesis tests (1 to 5) was then be used to determine a recommended combination (of qualifications, experience and skills) that was consistent with an effective audit committee.

The following descriptive analysis of the audit committee composition, for both samples were calculated and analysed to determine which categories of committees have average skill composition which is similar or closer to the overall average skill composition of each relevant sample:

Financial experts

- Committees with no financial expert;
- Committees with one financial expert;
- Committees with two financial experts;
- Committees with three financial experts;
- Committees with four financial experts and
- Committees with five financial experts.

Broad Business

- Committees with no member with broad business experience or background;
- Committees with one member with broad business experience or background;
- Committees with two members with broad business experience or background;
- Committees with three members with broad business experience or background;

- Committees with four members with broad business experience or background and
- Committees with five members with broad business experience or background.

Corporate Director

- Committees with no member with experience as corporate director;
- Committees with one member with experience as corporate director;
- Committees with two members with experience as corporate director;
- Committees with three members with experience as corporate director;
- Committees with four members with experience as corporate director and
- Committees with five members with experience as corporate director.

The following descriptive analysis of the audit committee members for both samples were calculated and analysed to determine frequency of skills combination that members in their individual capacity possessed:

Financial experts

- Finance and broad business experience or background;
- Finance and legal experience or background;
- Finance and corporate director experience or background and
- Finance and industry specific experience or background.

Corporate director

- Corporate director and broad business experience or background;
- Corporate director and legal experience or background and
- Corporate director and Industry specific experience or background.

Broad business

- Broad business and legal experience or background and
- Broad business and Industry specific experience or background.

Finance, broad business and corporate director

Chi-Square Test

Chi-Square tests were run to test for independence of financial experts on the other four skills, namely broad business, corporate director, legal and industry specific skills or backgrounds.

Calculating the test-statistic

The value of the test-statistic was calculated as follows:

$$X^2 = \sum_{i=1}^n \frac{(O_i - E_i)^2}{E_i}$$

where

X^2 = Pearson's cumulative test statistic, which asymptotically approaches a χ^2 distribution.

O_i = an observed frequency;

E_i = an expected (theoretical) frequency, asserted by the null hypothesis;

n = the number of cells in the table.

4.5 Research Limitations

The research examined only large listed organisations, and therefore the composition of audit committees and profiles of their members in the samples might not represent complete range of characteristics of committees and their members. Inclusion of private small to large unlisted companies would enhance the results of the study. Furthermore, a selection bias might have been a factor as the samples were drawn from a list compiled by Inet bridge, and there could have been exclusion of some companies which performed well over time but did not make it to the top 100 for some reason beyond their controls such as extended general conditions of market in which they trade.

Business conditions change rapidly and therefore one background may become more or less significant overtime than before, depending on what is the pressing issue faced by businesses at that time. For example a corporate scandal may prompt certain business activities to become rigidly legislated with possible heavy fines or penalties imposed on any violation thereof, which may cause a firm to experience liquidity problems or result in the license to operate being withdrawn. In that case legal background may be a more significant variable in determining the effectiveness to the audit committee.

Only five skills and background were used in the analysis, and there could be other skills and dynamics not identified and therefore not used in the research which played a role in effective audit committee. For example a personal reputation and charismatic character might contribute to the effectiveness of the audit committee more than his educational background and skills. The presence or absence of alternative plausible explanations or causal factors outside of those considered in this study (Zikmund, 2003).

5 Chapter 5: Research Results

5.1 Introduction

This chapter details the results obtained using data analysis explained in chapter 4. Summary of data collected is first presented, then the outcome of t-test and chi-square tests are detailed and finally the analysis of descriptive statistics are shown in diagrams and tables. The results are grouped in two categories, namely inferential statistics to test the hypothesis for objective 1 and descriptive statistics for objective 2.

5.2 Summary of data

Data collected was summarised in tables 3 and 4 below.

Table 3: Summary of data collected-Top 30 companies

Audit committee		Total number of members with specific skills in the committee				
No	Size	Finance	Broad business experience	Legal	Corporate directorship	Industry specific
1	4	2	1	0	2	1
2	3	1	1	1	3	1
3	2	1	0	1	0	0
4	3	1	1	2	2	0
5	3	0	0	1	1	2
6	4	0	0	0	4	1
7	4	3	1	0	4	0
8	3	2	1	0	0	0
9	3	1	2	1	2	0
10	3	2	2	0	3	0
11	4	1	3	0	2	2
12	3	3	1	1	1	2
13	4	2	0	1	3	3
13	4	3	2	1	0	0
15	3	2	0	0	1	2
16	4	1	0	1	4	1
17	4	2	3	0	3	0
18	4	2	0	1	1	0

19	3	2	0	1	3	0
20	3	2	0	0	3	1
21	3	3	1	0	3	1
22	5	3	3	1	2	1
23	3	3	1	0	3	0
24	4	2	3	1	2	0
25	5	5	3	0	5	0
26	2	2	2	0	0	0
27	3	2	2	0	1	3
28	2	1	0	0	1	2
29	3	2	1	0	0	2
30	3	3	3	1	2	0

Table 4: Summary of data collected-Bottom 30 companies

Audit committee		Total number of members with specific skills in the committee				
No	Size	Finance	Broad business experience	Legal	Corporate directorship	Industry specific
1	4	1	3	3	2	3
2	3	2	3	0	1	0
3	3	3	2	0	1	1
4	2	2	2	0	2	1
5	3	1	2	0	1	0
6	2	2	2	0	0	0
7	3	2	0	1	3	0
8	2	0	1	1	0	0
9	2	2	1	0	1	0
10	2	2	0	0	1	0
11	3	2	2	1	3	0
12	3	0	2	2	0	1
13	5	4	4	0	1	1
13	3	2	3	1	1	0
15	4	3	4	1	3	0
16	3	3	3	0	0	0
17	2	1	2	0	1	0
18	4	3	2	0	3	0
19	2	2	1	0	1	0

20	3	1	3	1	1	0
21	4	2	4	1	2	0
22	3	2	3	0	2	0
23	2	1	2	1	0	2
24	2	0	2	1	0	0
25	3	1	2	0	3	2
26	2	1	2	0	2	1
27	2	1	1	1	0	0
28	3	1	2	0	2	0
29	3	3	3	0	1	0
30	2	0	2	0	1	0

5.3 Inferential statistics

5.3.1 Mean

Table 5: Mean of collective skill composition per audit committee

Skill	Top 30 (U2)	Bottom 30 (U1)	Difference %
Finance	2.0	1.7	18%
Broad business experience	1.2	2.2	-43%
Legal	0.5	0.5	0%
Corporate directorship	2.0	1.3	56%
Industry specific	0.8	0.4	108%

Table 6: Mean of audit committee size

Skill	Top 30 (U2)	Bottom 30 (U1)	Difference %
Mean	3.4	2.8	18%

5.3.2 T-test

5.3.2.1 Audit committee size

T-Test: Two-Sample Assuming Unequal Variances

	<i>Variable 1</i>	<i>Variable 2</i>
Mean	2.8	3.366666667
Variance	0.648275862	0.585057471
Observations	30	30
Hypothesized Mean Difference	0	
Test Parameters	Two tailed test with 5% level of significance	
Rejection Rule	Reject Ho if the t-Stat value was more extreme than the t-Critical two-tail value	
Df	58	
t Stat	2.794782784	
P(T<=t) one-tail	0.00351448	
t Critical one-tail	1.671552763	
P(T<=t) two-tail	0.007028961	
t Critical two-tail	2.001717468	
Ho	U1 = U2, i.e. there was no difference between the means	
H1	U1 < U2	
Or		
H2	U1 > U2	

Where U1 = Sample mean of bottom 30 and

U2 = Sample mean of top 30

5.3.2.2 Evaluation of Research hypothesis

5.3.2.2.1 Finance

Research Hypothesis 1: An audit committee should have at least a member who has qualifications (or expertise) in Finance in order to be effective.

$$H_0: U_{1\text{estimate}} < U_{\text{Mean estimate}}$$

$$H_1: U_{1\text{estimate}} \geq U_{\text{Mean estimate}}$$

Test results

$$U_{1\text{estimate}} = 1.966666667$$

$$U_{\text{Mean estimate}} = 1$$

T-Test: Two-Sample Assuming Unequal Variances

	<i>Variable 1</i>	<i>Variable 2</i>
Mean	1.666666667	1.966666667
Variance	1.057471264	1.067816092
Observations	30	30
Hypothesized Mean Difference	0	
Test Parameters	1 tailed test with 5% level of significance	
Rejection Rule	Reject Ho if the t-Stat value was more extreme than the t-Critical two-tail value	
Df	58	
t Stat	-1.127127518	
P(T<=t) one-tail	0.132165059	
t Critical one-tail	1.671552763	
P(T<=t) two-tail	0.264330119	
t Critical two-tail`	2.001717468	
Ho	U1 = > U2, i.e. there was either no difference between the means or U1 was less than U2	
H1	U1 < U2	

Where U_1 = Sample mean of bottom 30 and
 U_2 = Sample mean of top 30

5.3.2.2.2 Business management experience

Research Hypothesis 2: An audit committee should have at least a member who has business management experience in order to be effective.

$$H_0: U_{2\text{estimate}} < U_{\text{Mean estimate}}$$

$$H_1: U_{2\text{estimate}} \geq U_{\text{Mean estimate}}$$

Test results

$$U_{\text{Mean estimate}} = 1$$

$$U_{2\text{estimate}} = 1.2333333333$$

T-Test: Two-Sample Assuming Equal Variances

	<i>Variable 1</i>	<i>Variable 2</i>
Mean	2.166666667	1.233333333
Variance	1.040229885	1.288505747
Observations	30	30
Pooled Variance	1.164367816	
Hypothesized Mean Difference	0	
Test Parameters	2 tailed test with 5% level of significance	
Rejection Rule	Reject H_0 if the t-Stat value was more extreme than the t-Critical two-tail value	
Df	58	
t Stat	3.349942169	
P(T<=t) one-tail	0.000712896	
t Critical one-tail	1.671552763	
P(T<=t) two-tail	0.001425791	
t Critical two-tail	2.001717468	

Ho $U_1 = > U_2$, i.e. there was either no difference between the means or U_1 was greater than U_2

H1 $U_1 < U_2$

Where U_1 = Sample mean of bottom 30 and

U_2 = Sample mean of top 30

5.3.2.2.3 Legal

Research Hypothesis 3: An audit committee should have at least a member who has qualifications (or expertise) in Law in order to be effective.

H₀: $U_{3estimate} < U_{Mean estimate}$

H₁: $U_{3estimate} \geq U_{Mean estimate}$

Test results

$U_{Mean estimate} = 1$

$U_{3estimate} = 0.5$

T-Test: Two-Sample Assuming Unequal Variances

	<i>Variable 1</i>	<i>Variable 2</i>
Mean	0.5	0.5
Variance	0.534482759	0.327586207
Observations	30	30
Hypothesized Mean Difference	0	
Test Parameters	Two tailed test with 5% level of significance	
Rejection Rule	Reject Ho if the t-Stat value was more extreme than the t-Critical two-tail value	
Df	55	
t Stat	0	
P(T<=t) one-tail	0.5	
t Critical one-tail	1.673033966	
P(T<=t) two-tail	1	
t Critical two-tail	2.004044769	

Ho $U_1 = > U_2$, i.e. there was either no difference between the means or U_1 was less than U_2

H1 $U_1 < U_2$

Where U_1 = Sample mean of bottom 30 and

U_2 = Sample mean of top 30

5.3.2.2.4 Corporate directorship

Research Hypothesis 4: An audit committee should have at least a member who serves or has served on a board of directors in order to be effective.

$H_0: U_{4estimate} < U_{Mean estimate}$

$H_1: U_{4estimate} \geq U_{Mean estimate}$

Test results

$U_{Mean estimate} = 1$

$U_{4estimate} = 2.033333333$

T-Test: Two-Sample Assuming Unequal Variances

	<i>Variable 1</i>	<i>Variable 2</i>
Mean	1.3	2.033333333
Variance	1.044827586	1.895402299
Observations	30	30
Hypothesized Mean Difference	0	
Test Parameters	1 tailed test with 5% Level Of Significance	
Rejection Rule	Reject H_0 if the t-Stat value was more extreme than the t-Critical two-tail value	
Df	54	
t Stat	-2.342455826	
P(T<=t) one-tail	0.011436652	
t Critical one-tail	1.673564907	
P(T<=t) two-tail	0.022873304	
t Critical two-tail	2.004879275	

Ho $U_1 = > U_2$, i.e. there was either no difference between the means or U_1 was less than U_2

H1 $U_1 < U_2$

Where U_1 = Sample mean of bottom 30 and

U_2 = Sample mean of top 30

5.3.2.2.5 Industry specific

Research Hypothesis 5: An audit committee should have at least a member who has experience in the industry in which the company operates in order to be effective.

$H_0: U_{5\text{estimate}} < U_{\text{Mean estimate}}$

$H_1: U_{5\text{estimate}} \geq U_{\text{Mean estimate}}$

Test results

$U_{\text{Mean estimate}} = 1$

$U_{4\text{estimate}} = 0.8333333333$

T-Test: Two-Sample Assuming Unequal Variances

	<i>Variable 1</i>	<i>Variable 2</i>
Mean	0.4	0.8333333333
Variance	0.593103448	0.971264368
Observations	30	30
Hypothesized Mean Difference	0	
Test Parameters	1 tailed test with 5% level of significance	
Rejection Rule	Reject H_0 if the t-Stat value was more extreme than the t-Critical two-tail value	
Df	55	
t Stat	-1.897637651	
P(T<=t) one-tail	0.031498874	
t Critical one-tail	1.673033966	

P(T<=t) two-tail 0.062997747
 t Critical two-tail 2.004044769
 Ho U1 = > U2, i.e. there is either no difference
 between the means or U1 is less than U2
 H1 U1 < U2
 Where U1 = Sample mean of bottom 30 and
 U2 = Sample mean of top 30

5.3.3 Chi square

5.3.3.1 First test

Table 7: Financial experts

		Financial Experts					Total
		1	2	3	4	5	
Category	Best performance	30	30	27	12	2	101
	Worst performance	30	30	18	5	1	84
Total		60	60	45	17	3	185

Chi-Square results			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.483(a)	4	.480
2 cells (20.0%) have expected count less than 5. The minimum expected count is 1.36.			

5.3.4 Second test

Table 8: Financial experts

		Auditors				Total
		1	2	3	4	
Category	Best performance	30	30	27	12	99
	Worst performance	30	30	18	5	83
Total		60	60	45	17	182

Chi-Square results			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.301(a)	3	.347
A 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.75.			

5.4 Descriptive statistics

5.4.1 Minimum

5.4.1.1 Committee size

Table 9: Minimum audit committee size

Sample	Size
Top 30	2
Bottom 30	2
Difference	0

5.4.2 Maximum

Table 10: Maximum skill composition of audit committees

Skills	Top30	Bottom30	Difference
Finance	5	4	1
Broad business experience	3	4	-1
Legal	2	3	-1
Corporate Directorship	5	3	2
Industry specific	3	3	0

Table 11: Maximum audit committee size

Sample	Finance
Top 30	5
Bottom 30	5
Difference	0

5.4.3 Median

5.4.3.1 Skill composition of audit committees

Table 12: Median skill composition of audit committees

Skill	Top30	Bottom30	Difference
Finance	2	2	0
Broad business experience	1	2	-1
Legal	0	0	0
Corporate Directorship	2	1	1
Industry specific	0.5	0	.05

5.4.3.2 Committee size

Table 13: Median audit committee size

Sample	Finance
Top 30	3
Bottom 30	3
Difference	0

5.4.4 Mode

5.4.4.1 Skill composition of audit committees

Table 14: Mode of composition of audit committees

Skill	Top30	Bottom30	Difference
Finance	2	2	0
Broad business experience	0	2	-2
Legal	0	0	0
Corporate Directorship	3	1	2
Industry specific	0	0	0

5.4.4.2 Committee size

Table 15: Mode of audit committee size

Sample	Finance
Top 30	3
Bottom 30	3
Difference	0

5.4.5 Frequency distribution of skills and experience

Figure 8: Average skill composition of audit committees of top 30 companies

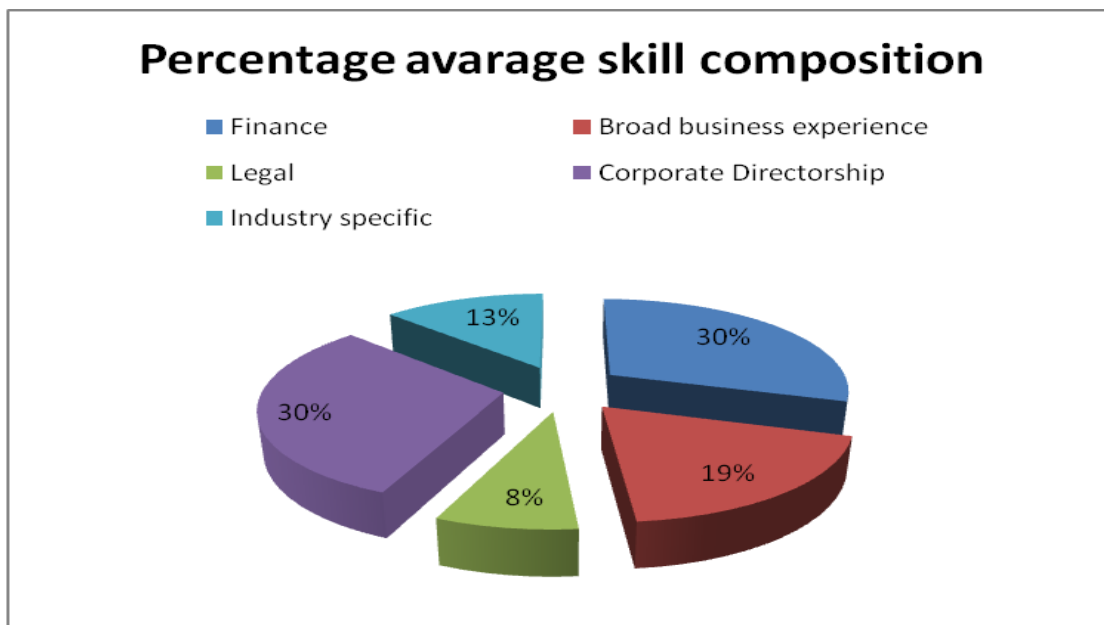


Figure 9: Average skill composition of audit committees of Bottom 30 companies

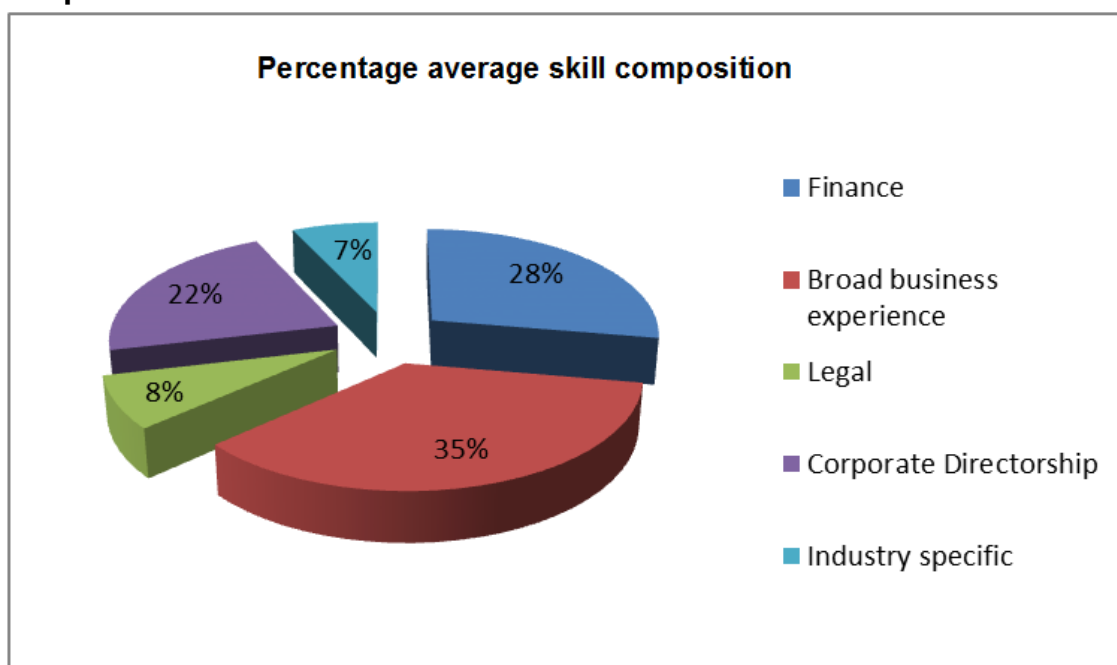


Table 16: Frequency distribution of skills and experience

Sample	Number of audit members per audit committee	Frequency		Average skill combination				
		Relative (%)	Absolute	Finance	Broad business experience	Legal	Corporate Directorship	Industry specific
Top 30	2	10.0%	3	40%	20%	10%	10%	20%
Bottom30		40.0%	12	29%	37%	8%	18%	8%
Top 30	3	50.0%	15	31%	17%	8%	29%	15%
Bottom30		43.0%	13	28%	37%	7%	23%	5%
Top 30	4	33.3%	10	26%	19%	7%	36%	12%
Bottom30		13.0%	4	23%	33%	13%	25%	8%
Top 30	5	7.3%	2	35%	26%	4%	30%	4%
Bottom30		3.3%	1	40%	40%	0%	10%	10%

5.4.6 Financial experts in a committee

Figure 10: Financial experts in a committee Top 30 companies

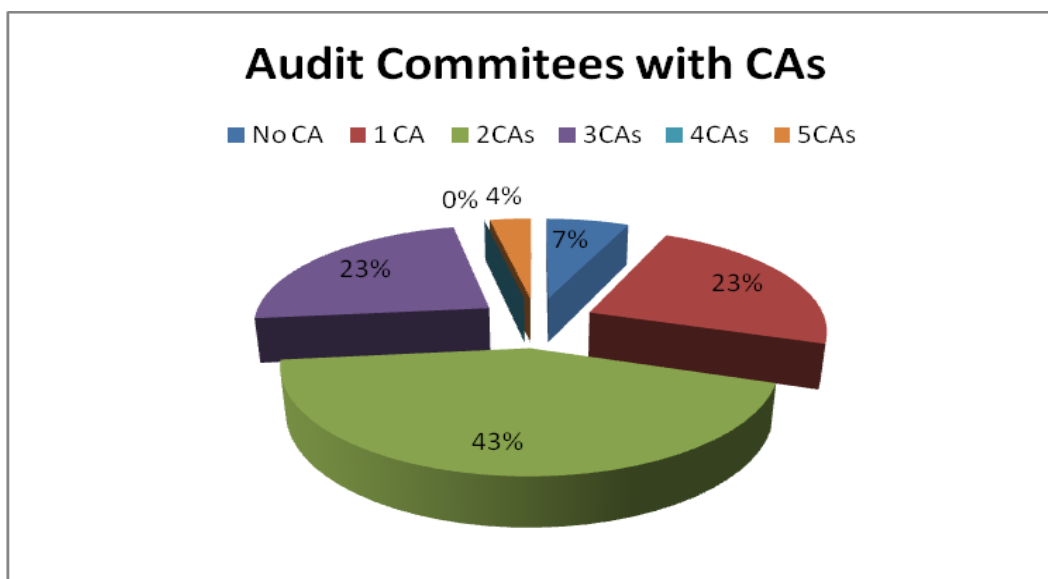
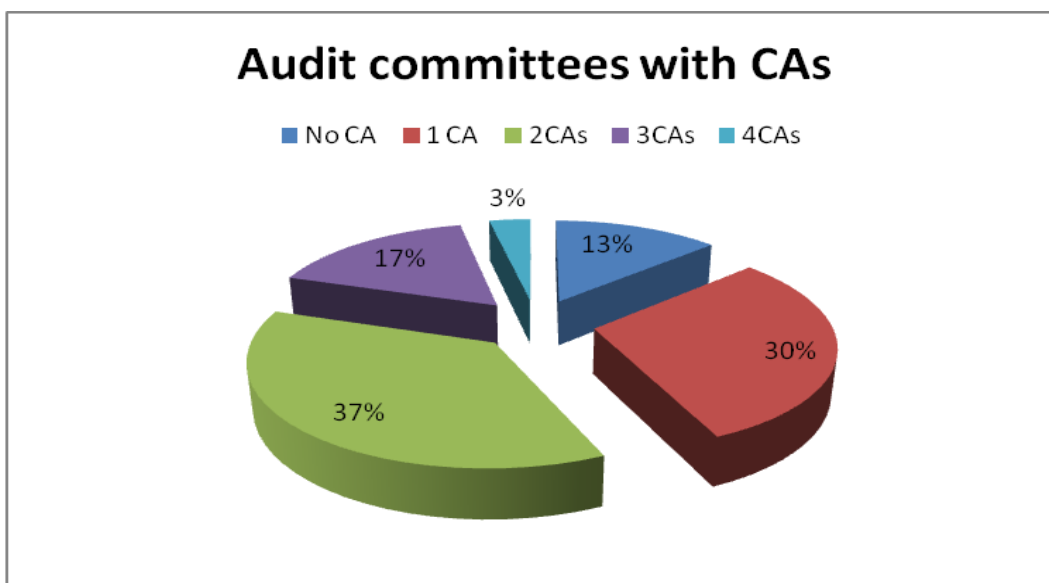


Figure 11: Financial experts in a committee Bottom 30 companies



5.4.7 Skills composition based on number of financial expert in an audit committee

Table 17: Frequency distribution: Skills composition based on number of financial expert in an audit committee –Top 30 companies

Number of CA's	Number of audit committee	Skill composition per audit committee				
		Finance	Broad business	Legal	Corporate Director	Industry specific
No Chartered Accountants						
7%	2	0%	0%	11%	56%	33%
One Chartered Accountant						
23%	7	18%	18%	15%	35%	15%
Two Chartered Accountants						
43%	13	33%	19%	5%	28%	15%
Three Chartered Accountants						
23%	7	38%	21%	7%	27%	7%
Five Chartered Accountants						
3%	1	38%	23%	0%	38%	0%
100%	30					

Table 18: Frequency distribution: Skills composition based on number of financial expert in an audit committee –Bottom 30 companies

Number of CA's	Number of audit committee	Skill composition per audit committee				
		Finance	Broad business	Legal	Corporate Director	Industry specific
No Chartered Accountants						
13%	4	0%	54%	31%	8%	8%
One Chartered Accountants						
30%	9	17%	35%	11%	22%	15%
Two Chartered Accountants						
37%	11	34%	32%	6%	26%	2%
Three Chartered Accountants						
17%	5	38%	36%	3%	21%	3%
Four Chartered Accountants						
3%	1	40%	40%	0%	10%	10%
100%	30					

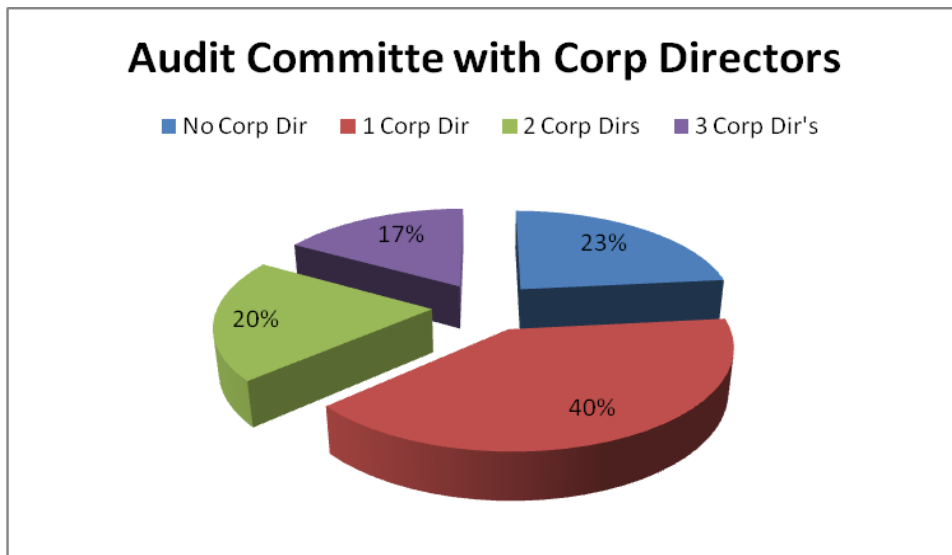
In tables 17 and 18 audit committees' samples were stratified according to the number of audit members who had financial expertise in a committee in order to identify a category which had average skill composition similar or closer to the overall average skill composition of the total sample.

5.4.8 Corporate directorship experience

Figure 12: Corporate directorship experience-Top 30 companies



Figure 13: Corporate directorship experience-Bottom 30 companies



5.4.9 Skills composition based on number of members who have corporate directorship experience in an audit committee

Table 19: Skills composition based on number of members who have corporate directorship experience in an audit committee-Top30 companies

Number of committee		Skill composition per audit committee				
%	Number	Finance	Broad business	Legal	Corporate Director	Industry specific
No corporate director						
17%	5	50%	30%	10%	0%	10%
One Corporate Director						
20%	6	30%	9%	9%	18%	33%
Two corporate directors						
23%	7	25%	30%	11%	26%	8%
Three corporate directors						
27%	8	29%	14%	5%	41%	10%
Four corporate directors						
10%	3	20%	5%	5%	60%	10%
Five corporate directors						
3%	1	38%	23%	0%	38%	0%

Table 20: Skills composition based on number of members who have corporate directorship experience in an audit committee- Bottom 30 companies

Number of committee		Skill composition per audit committee				
%	Number	Finance	Broad business	Legal	Corporate director	Industry specific
No Corporate Director						
23%	7	24%	45%	21%	0%	10%
One Corporate Director						
40%	12	35%	40%	3%	18%	3%
Two Corporate Directors						
20%	6	20%	35%	9%	26%	11%
Three Corporate Directors						
17%	5	27%	24%	7%	37%	5%
100%	30					

In tables 19 and 20, audit committees samples were stratified according to the number of audit members who had corporate directorship experience in a committee in order to identify a category which had average skill composition similar or closer to the overall average skill composition of the total sample.

5.4.10 Skills composition based on number of members who have broad business experience in an audit committee

Figure 14: Skills composition based on number of members who have broad business experience in an audit committee-Top 30 companies

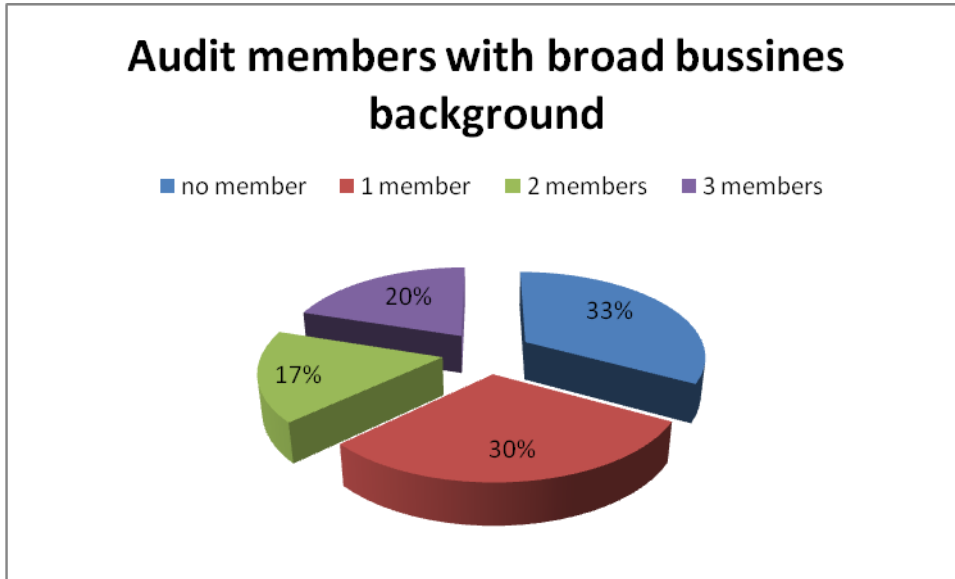


Figure 15: Skills composition based on number of members who have broad business experience in an audit committee-Bottom 30 companies

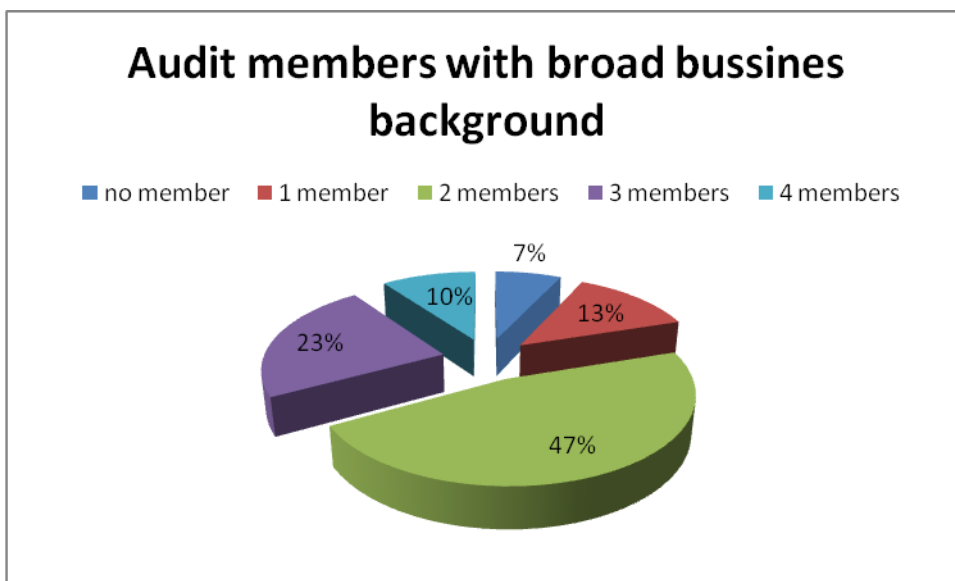


Table 21: Skills composition based on number of members who have broad business experience in an audit committee- Top 30 companies

Number of committee		Skill composition per audit committee				
%	Number	Finance	Broad business	Legal	Corporate director	Industry specific
No member with broad business experience						
33%	10	25%	0%	12%	40%	23%
One member with broad business experience						
30%	9	34%	16%	7%	31%	12%
Two members with broad business experience						
17%	5	34%	34%	7%	14%	10%
Three members with broad business experience						
20%	6	29%	32%	5%	29%	5%
100%	30					

Table 22: Skills composition based on number of members who have broad business experience in an audit committee- Bottom 30 companies

Number of committee		Skill composition per audit committee				
%	Number	Finance	Broad business	Legal	Corporate director	Industry specific
No member with broad business experience						
7%	2	44%	0%	11%	44%	0%
One member with Broad Business						
13%	4	38%	31%	15%	15%	0%
Two members with broad business experience						
47%	14	23%	36%	6%	24%	10%
Three members with broad business experience						
23%	7	27%	41%	10%	16%	6%
Four members with broad business experience						
10%	3	30%	40%	7%	20%	3%
100%	30					

In tables 21 and 22, audit committees samples were stratified according to the number of audit members who have broad business experience in a committee in order to indentify a category which had average skill composition similar or closer to the overall average skill composition of the total sample.

5.4.11 Skills combination per audit member

Table 23: Skills combination per audit member

	F + BB	F + L	F + CD	F + IS	CD + BB	CD + L	CD + IS	BB + L	BB + IS	F + BB + C
Top 30	41%	7%	66%	19%	36%	11%	18%	14%	8%	38%
Bottom 30	76%	0%	54%	8%	64%	8%	0%	14%	13%	27%

Key:

F= Finance

CD=Corprate director

IS=Industry specific

L=legal

BB=Broad business experience

6 Chapter 6: Discussion of Research Results

6.1 Introduction

In this chapter the quantitative results are discussed in more details. First the results pertaining to audit committee size is discussed and compared with literature review. Then the results of each skill is discussed based on the outcomes of inferential and descriptive statistics and are compared with the literature. Inferential statistics is used to discuss the hypothesis.

6.2 Size of audit committee

The biggest audit committees in terms of size had five members and the smallest had two in both top 30 and bottom 30 samples. Audit committees with three members were the most frequently found in both sample and the median size was also three. Average number of audit committee members was 3.4 for top 30 and 2.8 for bottom 30 resulting in the mean difference of 18% between the two samples groups. Audit committees of three members were in line with Companies Act (2008).

A two tailed test of significance, with $H_0: U_1 = U_2$ and support $H_1: U_1 < U_2$ or $H_2: U_1 > U_2$, was computed and the test found the t-stat value to be zero. The t-stat value of zero was more extreme than the t critical two-tail value of (+/-) 2.0017 and H_0 was rejected. A one tailed test of $U_1 < U_2$ was run to check which mean was bigger according to statistical significance. The test results indicated that the t-Stat value of zero was more extreme than the t Critical one-tailed value of 1.67, and therefore there was some statistical evidence to reject H_0 and support $H_1: U_1 < U_2$.

A further one tailed test of $U_2 < U_1$ was conducted to be sure of which mean was bigger and the results still indicated that the t- value was more extreme than the t Critical One-tail value of 1.67. That suggested that there was statistical evidence

to reject H_0 , but there was insufficient statistical evidence to support either $U_1 > U_2$, or $U_1 < U_2$. Committee sizes had therefore no statistical relevance.

6.3 Discussion of objective 1: to estimate a combination (of qualifications, experience and skills) that is consistent with an effective audit committee

Descriptive statistics

The overall average skill composition of audit committees for both samples (top 30 and bottom 30 companies) suggested that skill diversity was required in a committee. That was in line with Tyson (2003) and Robson (2004) both of whom argued that broad mix of skills foster independence of mind and lesser dependence of advice from external sources by directors. Maharaj (2009) identified ability to withstand succumbing to group pressure and board members groupthink as one of the three characteristics to be looked out for in a director. Bringing people of diverse background was viewed as encouraging diverse thoughts, which was good for audit committees as reliance on external source for advice was reduced.

The results of the audit committees' sample of the top 30 companies appeared to suggest that financial expertise and corporate directorship experience and background were of equal importance in the collective skill composition of an audit committee. The two skills and background together constituted 61% of the overall average committee make up with finance making up 30% and corporate director 31%.

The makeup was in line with Schneider et al. (2007) and Steffen & Stephan (2008) who were of the view that education qualification, represented by financial experts with chartered accountant profession and tacit knowledge gained through experience, which was represented by members with vast board directorship

experience complemented each other and were both equally important to enhance productivity.

The third average dominant skill was broad business experience, with 19% of the audit committee members having such background. That was also in line with expectation as at the early stage of audit committee members' career on board of directors, their previous business management, expectantly at executive or strategic level, would be the main factor that was considered. As members gained more experience and got appointed to more organisations as on board of directors, board experience would gradually be elevated to the same level or even overtake business experience in making decision on who to appoint on a company board. Finance, corporate director and broad business experience, collectively accounted for 80% of skill composition in an audit committee.

The results further suggested that legal background and industry specific experience or background were least important as far as composition of audit committee was concerned. Industry specific experience/skill as well as legal knowledge skill made 13% and 8% of average skill composition of the Top 30 sample respectively.

The bottom 30's overall average skill composition was however dominated by broad business experience at 35%, followed by finance/chartered accountant at 28%. Corporate directorship obtained a third spot at 22%, resulting in the three skills constituting 85% of the collective audit committee skill composition. Legal and industry specific background constituted 7% and 8% of the overall skill composition, confirming that the two were least considered, in the audit committee skill composition as in the top 30.

The five skills or background used in this research were however rated slightly different in their order of importance in the Audit Committee Institute (2006) survey. In the survey, industry specific obtained third spot, after finance and broad

business, ahead of corporate directorship. Legal was rated last of the eight skills used in the survey.

Analysis of descriptive statistics regarding audit committee size make up on the other hand suggested the following:

Top 30

- Collective skill composition of audit committee which had only two members size fell short on corporate directorship background at 10% and broad business experience at 20% when compared to the overall average collective skill combination of 20% and 31% respectively.
- Legal and industry specific skill composition of audit committee with five members were below that of overall average collective skill composition by 50% and 69% respectively.
- Average collective skill composition of audit committees that were made up of three members and those that had four members were closer to the overall average skill composition, with only notable negative difference of 13% of finance for committees with three members and 16% of broad business for those that had four.

Bottom 30

- Average collective skill composition of audit committee which had three members fell short on legal at 7% and industry specific at 5% when compared to the overall average collective skill combination of 8% and 7% respectively.
- Finance and broad business average skill composition of audit committee with four members, were below that of overall average collective skill composition by 18% and 6% respectively
- Audit committees with five members audit committee did not have legal skill in their composition.

- Skill composition of audit committees that were made up of two members were closer to the overall average skill composition, with only notable difference in corporate directorship of 18%.

6.4 Skill and background objective 1 and 2: to determine the recommended audit committee composition (i.e. the right combination of committee members based on their qualifications, experience and skills)

6.4.1 Finance

Inferential statistics

The sample mean of top 30 was greater than that of the bottom 30. A one tailed t-Test resulted in a t-statistics value of -1.127. The t-statistics value of -1.127 was not more extreme than the t critical one-tail value of (+/-) 1.671 and therefore there was no statistical evidence to reject H_0 and support $H_1: U_1 < U_2$. The view that there should be no difference between the two means still stands. That is it was expected that there would be no statistically significant difference in means.

The sample mean of the top 30 companies regarding finance was 1.966666667, which was significantly greater than the mean estimate (almost double) and $H_0: U_{\text{estimate}} < U_{\text{Mean estimate}}$ was rejected, meaning that finance must be essential part of audit committees' skills and background composition. Although that seemed to be in line with literature, presence of finance was more a corporate governance requirement than an option, meaning both groups would have finance, regardless of companies' performance and dynamics.

The Chi-Square test was run to test for independence of financial experts on the other four skills and it was found that there was no dependence. The same test was re-run excluding legal and again no dependence was found.

Descriptive statistics

The descriptive statistical results indicated that 93% of the top30 audit committee had at least one chartered accountant compared to 87% of the bottom 30. In USA, Sarbanes Oxley prescribes that at least one member of the audit committee must be a financial experts. South African companies are not bound by Sarbanes Oxley, and Companies Act (2008) is not prescriptive regarding a minimum financial expertise requirement of audit committees' composition. It was however expected that skill composition of South African companies audit committees would have a least one person as financial expert, emulating that of bigger, advanced and leading economies such as the United States, whereby at least one financial expert was a compliance requirement.

The 93% for top 30 and 87% of bottom 30 audit committees with at least one chartered accountant as a member had the following breakdown:

- 43,3% of the audit committees in top 30 sampled had two chartered accountant members, whereas in the bottom 30 companies sampled 37% had two chartered accountants;
- 23,3% of the audit committees in the top 30 sampled had one chartered accountant members, compared to the bottom 30's which was 30%;
- Top 30 audit committees with three chartered accountants were 23,3% of the sample, compared to 17% in the bottom 30;
- 3.3% of the top 30 audit committee had five chartered accountants as members and 3% of the bottom 30 had four chartered accountants.

The descriptive statistical results were in accordance with perception expressed by respondents in Audit Committee Institute (2006) survey, in which 91,% surveyed globally rated financially reporting as very important in the audit committee. South African respondents topped all regions surveyed as 97% of respondents regarded the skill as very important. The literature as well emphasised and singled out the expertise as important to audit committees.

The prevalence of chartered accountants supports Rowland (2002) view of having at least one financial expert in an audit committee and Campos (2005) proposal that an audit committee should be able to probe financial statements. This was also in line with expected responsibilities imposed by the Johannesburg Stock Exchange (2011) on audit committees that they should be able to identify and deal with matter regarding International Financial Reporting Standards. The prevalence of chartered accountant qualification that financial experts held, was in accordance with the view by Bennett and Robson (2004) that educational level of board members had a positive influence on board effectiveness.

On average an audit committee had two chartered accountants as members of its committee for both samples. Furthermore, it was observed that committees that had two chartered accountants in their composition seemed for both samples to achieve a skill composition which was relatively closer to the overall skill composition of each sample. Audit committees that had less than two chartered accountants in their composition appeared to deviate from the overall composition as they either had no member with financial expertise or the financial skills composition was way below the overall average. Legal background and/or industry specific skills composition of audit committee with more than two chartered accountants were either absent or were way below that found in the overall average composition.

Average corporate directorship and industry specific skills of composition of audit committee with three chartered accountants were below the overall average skill by 10% and 46% respectively. There was no audit committee with four chartered accountants and only one audit committee had all five members as chartered accountants in the top 30 sample. The committee that was made up of exclusively chartered accountant (five in total) had no members with legal background and industry specific skills. In the bottom 30, there were two audit committees with four members chartered accountants and their members had no legal background

composition and their corporate directorship was 10% compared to the overall of 22%. There was no audit committee with five members in the bottom 30 sample.

In the Top 30, 66% of the chartered accountant had corporate directorship skills and 41 % had broad business experience compared to the respective 54% and 76% in bottom 30. Chartered accountants with both directorship and broad business experience made up 38 % of all chartered accountants in the top 30 and in the bottom 27% had all the three skills or background.

6.4.2 Broad business management

Inferential statistics

Top 30 companies have considerably less broad business experience sample mean than the bottom 30. That was unexpected, as it seemed to be contrary to the previous research results and literature. A t-test calculation yielded a t-statistics value of 3.349, which was more extreme than the t-critical two-tail value of 2.001. H_0 was therefore rejected, thus suggesting that the observed U_1 which was greater than U_2 , had no statistical significance. In the view of the t-test results, the difference might have occurred by chance.

The top 30 broad business sample mean was slightly greater than the mean estimate and therefore $H_0: U_{1\text{estimate}} < U_{\text{Mean estimate}}$ was rejected. That implied that audit committees' skills and background composition must contain broad business management experience.

Descriptive statistics

For top 30, broad business management experience was the third common skill in the sampled committees. The results were as anticipated as previously mentioned in 6.3 that board of directors of listed companies would appoint tried and tested caliber of people who had considerable board of director experience to be in their

companies' audit committees and broad business management would be highly considered in the early stages of a person's board of directorship career and its importance would gradually diminish and be overtaken by the latter.

Surprisingly, broad business significantly topped the skill composition in the bottom 30 at 35%. Broad business is accumulated through working experience and Brustein and Filho (2011) identified the experience as one of the fundamentals of competency construction process. Westphal and Fredrickson (2011) suggested that strategic experience was the most predictor of director's effectiveness.

Audit Committee Institute (2006) survey rated broad business experience as the second most important skill in the audit committee both in the global and South African survey. The difference in the survey results of Audit Committee Institute (2006) and this research's could be that the former included private companies which might likely had different dynamics as opposed to listed companies that were exclusively the subject of this research.

In the top 30 about 33% audit committees did not have members with broad business experience compared to 7% in the bottom 30. The bottom 30 had 80% of the audit committees at least two members with broad business background and 93% had at least one member with the background as opposed to 37% and 67% found in the top 30 respectively. The median with regard to broad business experience in audit committees was one member in the top 30 and two in the bottom 30.

Composition of audit committee with no or one member with broad business background fell short on the skill and those that had two had their average skill were short on corporate governance compared to the overall average skill composition of the top 30. Only audit committees with three members of broad business background had their average skill composition that was closer to the overall averages.

The descriptive statistics analysis of the bottom 30 however found that composition of audit committees with nil or one member of broad business background had their broad business, industry specific and either legal or corporate governance below that of the overall average of the bottom 30. The percentage corporate director skill composition of audit committee with three or four members from broad business background was low. That left audit committees with two broad business oriented members having a composition that was closer to the overall average.

6.4.3 Legal

Inferential statistics

The top 30 and the bottom 30 had the same sample mean of 0.5. The calculated t-statistics value of zero was found not to be more extreme than the t-critical two-tail value of (+/-) 2.004. There was therefore no statistical evidence to reject H_0 and support $H_1: U_1 < U_2$.

The mean is half lesser than the mean estimate and therefore $H_0: U_{1\text{estimate}} < U_{\text{Mean estimate}}$ was not rejected. The results therefore inferred that audit committees need not have legal expertise in their audit composition.

Descriptive statistics

Legal expertise was the least common skill among the five categories. The mean of finance was more than triple of legal and that of corporate directorship was more than double more in both samples. Audit Committee Institute (2006) suggested the same perception as legal was ranked second last before Chief Executive Officer's experience out of eight categories that included the five that were used in this research. The results seemed to suggest that legal expertise play least role in deciding on the composition of an audit committee.

A significant majority of audit committee members who possessed legal background did not have any of the other four skills and background as only 7% of chartered accountants had legal background in the top 30 and there was no chartered accountant with such background in the bottom 30. Members who had both legal and business experience were 14% and those that had legal and corporate directorship were 11% in the top 30 and 8% in the bottom 30.

6.4.4 Corporate directorship

Inferential statistics

The t-statistic value of -2.342 was more extreme than the t-critical one-tail value of (+/-) 1.671. There was therefore statistical evidence to reject H_0 and support $H_1: U_1 < U_2$. The sample mean of top 30 companies had considerably higher corporate directorship than that of the bottom 30. That seemed to be in line with literature review, as there was some statistical significance, implying that $H_0: U_1 = U_2$ is rejected in favor of $H_1: U_1 < U_2$).

The sample mean of the top 30 companies regarding finance was double more than the mean estimate and therefore $H_0: U_{\text{estimate}} < U_{\text{Mean estimate}}$ was rejected, implying that corporate directorship must be essential part of audit committees' skills and background composition.

Descriptive statistics

Corporate directorship experience was the one of the two skills that dominated audit composition at an average of 31%. In the top 30, 83% of the audit committee had at least one member who was and/or is a member of multiple companies' board of directors. That was expected as the sample was extracted from listed companies, which would tend to choose people who had or are serving on various companies' board of directors. It was however not expected that the corporate director skill composition would be slightly higher than that of finance as it was

anticipated that majority of people in the audit committee would tend to have corporate directorship as a common factor.

Corporate directorship is a strategic experience gained by a member. Brustein and Filho (2011) identified working experience as one of the fundamentals of competency construction process, with Westphal and Fredrickson (2011) suggesting that strategic experience was the most predictor of director's effectiveness. Audit Committee Institute (2006) survey rated corporate director fourth most important skill in the audit committee both in the global and South African survey.

On average audit committee had two members with corporate directorship experience. The results however seemed to suggest that audit committee that had three members with corporate directorship experience had on average collective skill composition that was close to the overall average composition of 31%, 19%, 8%, 30 and 13% of financial expert, broad business management experience, legal, corporate directorship and industry specific respectively. That was possible as significant number members who have other skills in the sample serve on board of directors of various companies.

The results further indicated that members with extensive track record as board members are preferred. That was supported by literatures that proposed that experience was of vital importance in the effective functioning of an audit committee. The results on corporate directorship were however contrary to the survey by Audit Committee Institute (2006), where the experience was rated fourth after finance, broad business experience and industry experience in order of importance to the audit committee, in both global and South Africa.

In the top 30 17% audit committees did not have members with corporate directorship experience compared to 23% in the bottom 30. 63% of audit committees in the top 30 had at least two members with corporate directorship background and 83% had least one member with the background as opposed to 37% and 77% found in the bottom 30 respectively.

The median with regard to corporate directorship in audit committees was one member in the bottom 30 and two in the top 30. Audit with three members who were corporate director of various companies, were most frequently found in both samples

Averages skill composition of audit committee without members with corporate director background fell short on the corporate director experience and those that had one such person, their skill composition on finance, broad business and corporate director were below that of overall average skill composition in the top30 sample. The audit committee that had three members of corporate director background seemed to be the only closer to the overall average skill composition of the top 30, as other ones either fell short on two of the three dominating or both legal and industry specific knowledge.

The descriptive statistics analysis of the bottom 30 however found that composition of audit committees with nil or one member of corporate director background had their corporate director, and industry specific or legal below that of the overall average of the bottom 30. The percentage corporate director skill composition of the audit committees with three members with corporate directorship background was low at broad business. The only audit committees that had a composition that was closer to the overall average were committees with two members of corporate directorship orientation.

6.4.5 Industry specific

Inferential statistics

The industry specific means of both samples were second lowest at 0.833 and 0.4 for top 30 and bottom 30 companies in the samples respectively. The mean of both finance and corporate directorship were twice more than that of legal. The results were however contrary to findings by Audit Committee (2006) where skill in industry specific was ranked third, after finance and broad business, ahead of corporate director.

A test of significance found a t-statistics value of -1.897, which was more extreme than the t Critical One-tail value of (+/-) 1.671. There was therefore statistical evidence to reject H_0 and support $H_1: U_1 < U_2$. The results were in line with the expectation as broad business was expected to preferred rather than specific industry knowledge and expertise. Maharaj (2009) however proposed that knowledge of industry and finance together were required of a director.

The mean of 0.833 was slightly lower than that of estimate mean and therefore $H_0: U_{\text{estimate}} < U_{\text{Mean estimate}}$ was not rejected, implying audit committees need not have industry specific background in their skills and background composition.

Descriptive statistics

The industry specific skill also had a low frequency distribution in terms of members who had the skill and other background as shown by only 19% in the top30 and 8% in the bottom 30 of the total chartered accountant found in each sample were experts in the industry in which their companies operated. There were no corporate directors with industry specific background in the bottom 30 whereas there were 18% of such members in the top 30.

The results suggested that industry specific skill was rarely used in choosing audit committees and when chosen, most members of that background rarely have additional other skill that they bring to the audit committee. That fact that members from industry specific background had one skill made them to be least favoured in comparison to financial experts, corporate director and members who had broad business experience who generally possessed at least two skills.

7 Chapter 7 : Research Conclusion

7.1 Introduction

This chapter concludes on the research findings. Conclusions are first made on audit committee size and then on skills combinations. Deduction on a combination of caliber of members to achieve a required skill combination then follows. The conclusion was based on the results of the sample of top 30 companies as their audit committees were assumed to be effective by virtue of their company performance. Lastly future research required to take the subject matter of this study further is pointed out.

7.2 Conclusion

On average audit committees had three members. The size was in line with Companies Act (2008). The committees were made up of people from diverse education and skill background. The overall skill composition suggested that finance, corporate director and broad business skills or background were important skills that audit committees must have. The results further suggested that a balance should however be maintained so that none of the three substantially dominates the other two. According to the research results a balance which is closer to a 3:3:2 ratios for financial expertise, corporate directorship and broad business respectively, must be maintained. This ratio ensures diversity in a balanced manner so that independence of mind is encouraged while strengthening knowledge on each of the three skills.

Audit committees with at least one member who was a chartered accountant made up 93% of the sample. On average, there were two chartered accountants in a committee and 70% of the audit committees had at least two financial experts. Audit committees that had a maximum of two financial experts had average skills composition which was closer to the overall skill composition of the top 30 sample. The results seem to propose that there should be a least and at most two chartered accountants in a committee.

Presence of two financial experts in a committee will enhance debate among the experts as opposed to a committee with one expert where audit committees might run a risk of getting one view in financial matters. The number of financial experts should however be limited to two, to achieve diversity and accommodate other skills in the committee. The results had also shown that increasing the number of chartered accountants would end up with financial skill dominating the audit composition at the expense of other skills, which would be contrary to what literature advocated of variety of skill to enhance broader perspective in dealing with matters.

The type of financial experts that are required must both possess broad business experience and corporate directorship background or one must have both and the other one must have either of the two. This will ensure that broad skills are achieved with limited number of three members. The results suggested that financial experts with such background are readily available as there were 41% of them with broad business, 66% with corporate director and 38% with both backgrounds.

Audit committees with three members who had both broad business and corporate director background had their average skill composition that was closer to the overall averages. The results therefore suggested the third member must have both corporate directorship and business experience. A third member must be a person not from chartered accounting background for reasons mentioned above.

The human capital of skill combination of both business background and corporate director experience without financial expertise is also available as according the results 36% of members in the top 30 sample were of such. When taking into account the type of members identified above as needed in the audit committee, the following indicated in tables 24, 25 and 26 below, would be possible member skill combination:

Table 24: More preferred member skill combination

	Financial	Broad business	Corporate director
Member 1	X	X	X
Member 2	X	X	X
Member 3		X	X
Ratio	2	3	3

Table 25: Alternative 1 member skill combination

	Financial	Broad business	Corporate director
Member 1	X		X
Member 2	X	X	X
Member 3		X	X
Ratio	2	2	3

or

Table 26: Alternative 2 member skill combination

	Financial	Broad business	Corporate director
Member 1	X	X	X
Member 2	X	X	
Member 3		X	X
Ratio	2	3	2

Legal as well as industry specific backgrounds are optional and would be an added advantage if either one or more of the three audit committee members identified above has one of the skills. There was however no member in the sample which had three skills that included legal or industry specific experience. There were less than 20% of members who were from either legal or industry background who had skill in corporate director. Possession of only one or limited skills was possibly one of the factors that made the two skills less favoured in comparison to others as companies would want to have a person with multiple skills as he or she would bring rich and diverse background and give an organisation more added value.

It is therefore concluded that an audit committee

- Must have at least three members, two members of whom must be financial experts in possession of relevant formal qualification and have broad business as well as corporate directorship experience;
- Need not have a member who has qualifications (or expertise) in law in order to be effective;
- Need not have a member who has experience in the industry in which the company operates in order to be effective;
- At least two of the members must have broad business experience and must be serving and /or had served on a board of directors of more than three companies in order to be effective.
- The third member must have broad business experience and must be serving and /or had served on a board of directors of more than three companies in order to be effective, but must not be a financial expert

7.3 Future work

The following subsections represent potential areas that could be researched to further enhance findings of this study:

7.3.1 Study covering private companies as well as state owned entities

As highlighted in the research limitations, a study which extends to private companies and state owned enterprises would be appropriate to enhance the findings of the study.

7.3.2 Study that tracks in the audit committee composition and the impact thereof on the effectiveness of the committee.

A study that tracks changes in the audit composition and evaluates its impact on the performance of the audit committee would be valuable to further identify key skills needed for an effective audit committee.

8 Reference list

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