The relationship between corporate governance and the cost of capital in the 20 largest listed companies in South Africa

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by

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DECLARATION

I, the undersigned, hereby declare that the work contained in this dissertation is my own original work and that I have not previously in its entirety or in part submitted it at any University for a degree.

Signature: Date: November, 2009

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ABSTRACT

The research project aimed to establish whether corporate governance is important to investors from a value perspective. The problem that needed further investigation was if a relationship between corporate governance and the cost of capital in the twenty largest listed companies in South Africa exist. A cross-sectional descriptive research design using a quantitative approach was applied. The findings revealed no evidence of a relationship between corporate governance and the cost of capital in the twenty largest listed companies in South Africa. The research project motivated why empirical corporate governance research from a value perspective should not be discarded, but additionally made a case that corporate governance should be advocated from a values perspective. The implications and recommendations for future research were provided.

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1. Introduction

1.1 Background to and motivation for the research project

Since the start of industrial capitalism corporations have struggled with the problem of whether their sole purpose is to generate wealth or whether corporations have broader obligations to the communities in which they are situated, and from which not only their fundamental resources are derived, but also their license to operate (Clarke and dela Rama, 2008). The authors state that these concerns have become accentuated recently with the extensive internationalisation of corporate activity, the global deregulation of financial markets as well as a growing awareness of the damaging economic and social consequences when corporate governance failures occur. Business' contract with society is changing with individuals, being the ultimate beneficiaries of pension funds, becoming the new owners of capital (IOD, 2009).

Responsible investment (RI) integrates environmental, social and governance issues into decision-making and ownerships and is fast becoming a mainstream investment discipline (UNEP FI, 2007). As opposed to Socially Responsible Investment (SRI) practices which were often driven by social agendas, RI stresses approaches that incorporate environmental, social and governance issues on the basis of their financial materiality (UNEP FI, 2007).

The definition of RI includes investors with orientation toward purely financial analysis, those open to sustainability themes, and traditional SRI approaches including moral or ethical investment philosophies (UNEP FI, 2007). However, the field of interest has been characterised by debate or lack of consensus about definitions with even the terminology not settled (KLD Research & Analytics, 2005; Sparkes and Cowton, 2004). Therefore, the terms RI and SRI are often used interchangeably.

The following table describes a general categorisation of SRI approaches. The value-enhancing approach to SRI differs from the values-based and value-seeking approach in regard that the institutions that have adopted it reject the notion that they are SRI investors and their issues tend to appear almost entirely under the heading of corporate governance (KLD Research &

Analytics, 2005). Having a closer look at the table and the criteria for success column, one could argue that the value-seeking and value-enhancing approaches are distinct from the values-based approach. According to KLD Research & Analytics (2005) both values-based and value-seeking investors use environmental, social and governance criteria, albeit differently. "The value-seeking approach segregates ethical criteria from the broader causes of positive social and environmental change" (KLD Research & Analytics, 2005: 41). The ethical case for SRI would then correspond to the values-based approach while the business case for SRI would correspond to the value-seeking and value-enhancing approaches to SRI. The difference between values and value would now be apparent.

Table 1.1 A general categorisation of SRI approaches (KLD Research & Analytics, 2005:22).

Approach	Descriptors	Social/Governance Screen – Purpose	Criteria of Success	Primary Investor Types	Usual Vehicles/Means
Values-Based	1.Mission-based 2.First generation 3. Sustainable	1. Consistency with own values 2. Social change	1. Return adjusted for risk tolerance 2. "Triple Bottom Line"	1. Individual investors 2.Faith-based and social-cause institutions	1. Mutual funds 2. Separately-managed accounts 3. Indirect engagement
Value-Seeking	1.Second generation 2. Sustainable	1. Spot investment prospects 2. Corporate change	Market return on investment	1. Foundations & endowments 2. Fund managers 3. Pensions	1. Separately-managed accounts 2. Pooled vehicles 3. Direct & indirect engagement
Value-Enhancing	1.Shareholder activist 2. Engagement	1. Identify under-per-forming companies 2. Corporate Change	Market return on investment	Public pensions	Direct engagement

According to KLD Research & Analytics (2005) SRI is an evolving concept in a changing world. New factors that have to be considered in re-thinking SRI include the increasing role of institutional investors, social and environmental criteria that have taken on investment significance and that SRI's moral dimension is at least implicitly de-emphasised (KLD Research & Analytics, 2005). KLD Research & Analytics (2005) urges the moral case for SRI be acknowledged, if not adopted, by those applying environmental, social and governance criteria. "The loss of the moral grounding to these criteria seems a great one. The efforts of organisations such as the World Economic Forum to craft 'responsible investing' out of SRI and, one must assume, the general course of fiduciary capitalism appear to have no purpose other than the

concealment of their moral roots" (KLD Research & Analytics, 2005: 64). The research project's interpretation of RI is that in order to achieve a market return on investment, companies have to take into account environmental, social and governance criteria.

The United Nations-backed Principles for Responsible Investment (PRI) initiative announced in August 2008 that more than 400 global investment institutions, managing over $15 trillion of assets, have signed up to the principles (UNEP FI, 2008). PRI is a set of global practices for implementing responsible investment. Remarkably, in the year since the start of the credit crunch, the number of signatories has grown by 65%, and the rate of growth since the start of 2008 has continued at 37% (UNEP FI, 2008). In fact, the PRI initiative believes that the global credit crises could be a catalyst to influence a growing number of mainstream investors of the value of taking environmental, social and governance issues into account when making investment decisions and exercising ownership obligations (UNEP FI, 2008).

RI remains a niche investment strategy on the fringe of mainstream practices in South Africa (Viviers, Eccles, De Jongh, Bosch, Smit & Buys, 2008). However, with the flows of capital not restricted to country borders and developing countries requiring more foreign capital inflow, RI in South Africa should rapidly emulate the international trend. The commitment of South Africa's largest pension fund, the Government Employee Pension Fund, to the PRI offers further persuasion.

If corporate governance is weak in a country generally, the country will struggle to attract foreign investment (CIS, 2008). Corporate governance being one of the pillars of RI is not only of particular importance for South Africa, but also for Africa as evident from NEPAD's release of a business covenant on corporate governance (Rossouw, 2005). South Africa is Africa's largest economy with considerable influence on the continent (Mangena and Chamisa, 2008).

In summary, the growing awareness of environmental, social and governance issues that RI integrates into decision-making and ownership considerations served as motivation for the research project. This research project focused on corporate governance and why investors should pay attention to corporate governance from a value perspective.

1.2 Introduction to the literature

"The presence of an effective corporate governance system, within an individual company and across an economy as a whole, helps to provide a degree of confidence that is necessary for the proper functioning of a market economy. As a result, the cost of capital is lower and firms are encouraged to use resources more efficiently, thereby underpinning growth." (OECD, 2004:11).

The financing choices (capital structure) of companies will affect their cost of capital. A company's value is determined by its discounted future cash flows and value is only created when companies invest capital at returns that exceed the cost of that capital (Copeland, Koller & Murrin, 1994). As the cost of capital decreases, a company's value subsequently increases. According to Brigham and Ehrhardt (2005) most companies employ different types of capital, and, due to differences in risk, each capital component has different required rates of return. Ordinary and preference shares, along with debt, being the three most frequently used types of capital.

Conflicts of interest ultimately reduce the value of a company and these notions form the starting point for research in corporate governance (Ramly, 2009). The cost of capital is considered a key determinant of company value other than market and accounting performance measures (Ramly, 2009). Theoretically, corporate governance will lead to lower company risk and therefore a lower cost of capital which increases a company's value (Ramly, 2009).

La Rocca (2007) proposes that a joint analysis of capital structure and corporate governance is necessary when describing and interpreting a company's ability to create value. His paper defines a theoretical model that contributes to clarifying the relations between capital structure, corporate governance and firm value.

Donker and Zahir (2008) suggest that conventional wisdom on corporate governance states that good corporate governance increases firm valuation by increasing firm performance and reducing the cost of capital because of a reduced risk of agency issues such as fraud. An explanation put forward by the authors for the reduced cost of capital is that good corporate

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governance will lead to lower firm risk. Corporate information and corporate governance disclosure reduces information asymmetry between managers and shareholders and thereby lowers risk. However, the authors also point out that empirical studies on corporate governance so far do not unambiguously support the broadly accepted statement that good corporate governance will lead to an increase in firm valuation and firm performance.

A key question often faced by investors is whether an investment in good corporate governance practices by a company will result in an increase in shareholder value (Abdo and Fisher, 2007).

As illustrated in figure 1.1, corporate governance can possibly have a relevant influence on the relation between capital structure and value, with an effect of mediation and/or moderation.
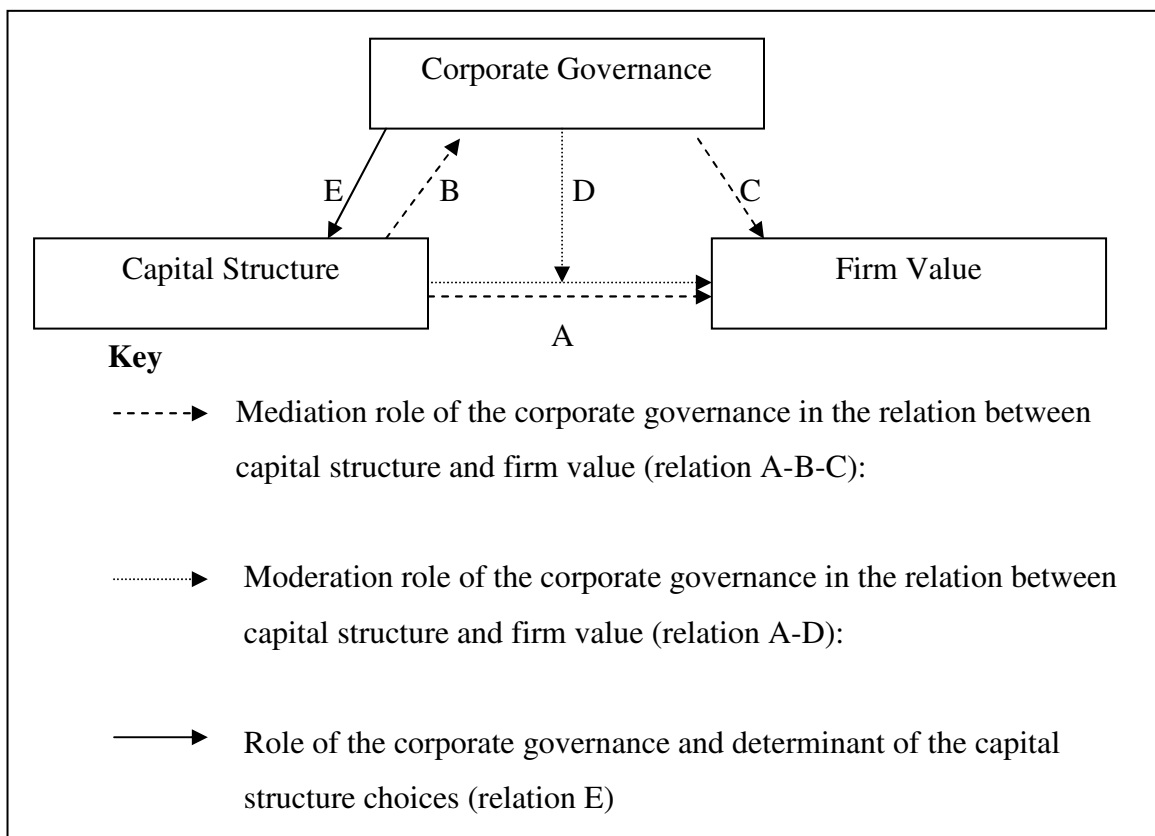
Figure 1.1 Theoretical model to clarify the relations between corporate governance, capital structure and firm value (La Rocca, 2007:317).

La Rocca (2007) describes the five relations identified in figure 1 as follows:

- the relation between capital structure and firm value (relation A) through a role of corporate governance "mediation" (relation B – C);

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- the relation between capital structure and firm value (relation A) through the role of capital governance "moderation" (relation D) ; and
- the role of corporate governance as a determining factor in financing choices (capital structure) (relation E).

This research project investigates relation E, corporate governance and capital structure and the resultant effect on cost of capital.

1.3 Statement of the problem and sub-problems

The research problem is paramount to the success of the research project (Leedy and Ormrod, 2005). The general research question that needed further investigation was as follows:
- Is there a relationship between corporate governance and the cost of capital in the twenty largest listed companies in South Africa?

The following specific research questions that have been addressed in this research project were:
- Is there a relationship between corporate governance and the cost of equity capital in the twenty largest listed companies in South Africa?
- Is there a relationship between corporate governance and the cost of debt capital in the twenty largest listed companies in South Africa?
- Is there a relationship between any specific corporate governance disclosure category and the cost of equity capital in the twenty largest listed companies in South Africa?
- Is there a relationship between any specific corporate governance disclosure category and the cost of debt capital in the twenty largest listed companies in South Africa?

The central hypothesis in this research project was that there is a relationship between corporate governance and the cost of capital in the twenty largest listed companies in South Africa.

By looking at the scope of the available literature existing on the topic, the study further aimed to identify shortcomings in the knowledge base as well as identify future research avenues.

1.4 Research design

A descriptive research design alternative using a quantitative approach was considered appropriate. The research project was located within the positivistic research paradigm and the quantitative approach was selected to achieve the aim of the study with the goal to explore possible correlations among variables. A cross-sectional research design was used instead of a longitudinal design. Corporate governance was considered the independent variable and the cost of equity as well as the cost of debt, the dependent variables all of which were explained in detail in subsequent chapters.

1.5 Importance of the study and potential benefits

For more than a decade, corporate governance has dominated policy agenda in developed countries. However, developing countries are increasingly embracing good corporate governance for its ability to impact positively on sustainable growth (Abor, 2007). Not many studies have investigated the link between corporate governance and financing decisions of companies, especially in Africa (Kyereboah-Coleman, 2007).

Further interest in the matter has been sparked by the increasing number of corporate scandals the last couple of years. Consequently, corporate governance has achieved attention from policymakers, investors, corporate boards and rating agencies (Donker and Zahir, 2008). Examples of these corporate scandals include WorldCom, Enron, Tyco and more recently at Satyam where corporate governance in India has taken a pounding. South African corporate scandals include Masterbond, Fidentia, Leisurenet, Beige Holdings and companies in the late Brett Kebble stable.

In addition to the number of corporate scandals, the credit crunch has further focused the attention on corporate governance. The global financial crisis is often presented as a crisis of corporate governance (IOD, 2009). In a world-wide recession, calls for protectionism and more stringent regulation abound. It should however be kept in perspective that the problems associated with the credit crunch are very specific to a particular sector of the economy: the financial sector (Barker, 2009). However, one could also argue that because of the woes in the

financial sector other sectors in the economy are obviously adversely affected. With credit becoming tight and protective, accessing credit becomes more competitive and governance differentiators might make all the difference. The chairman of FirstRand is accurate when stating that when things go wrong and liquidity dries up, it is not the price of credit that matters but the availability of credit (FirstRand, 2008). At the recent AGM of investment holding group Remgro, the chairman in referring to the massive bail-outs of banks and financial institutions in the US and Europe, quoted Karl Marx as being correct when he said "banks privatise profits and socialised losses". Banks are utilising the trillions of dollars to clean up their balance sheets rather than extending the funds to clients (Hasenfuss, 2009).

Barker (2009) further argues that these problems do not reflect a more widespread failure in the capitalist system or broad-based failures in the corporate governance framework. Barker (2009) concludes that the credit crunch should not be used as an excuse to abandon the incremental progress that many countries have made towards a viable system of corporate governance. According to the IOD (2009) proof thereof can be found in that South Africa has benefited greatly as a result of its listed companies following good governance principles and practices as evident by the significant capital inflows preceding the global financial crisis. The credit crunch could provide additional impetus for corporate governance.

Not heeding to the lessons of the last decade could produce a knee-jerk response to a crisis as for instance the Sarbanes-Oxley Act in 2002 that imposed significant and unnecessary costs on the US economy (Barker, 2009). It is estimated that the total cost to the US economy of complying with the above mentioned Act is more than the total write-off of Enron, WorldCom and Tyco combined (IOD, 2009). The US was the primary source of the financial crisis and the Sarbanes-Oxley Act with all its statutory requirements could not prevent the collapse of many leading US banking and finance institutions (IOD, 2009).

The prolonging of the financial crisis will undoubtedly increase the argument that the current crisis does reflect a failure of the form of capitalism that we have been pursuing. The current situation then presents us with a chance to bring radical change. Options that we have are to shift from the 'profit and growth at all cost' mantra or that business be stringently regulated. The

current author is of the opinion that regulation alone will not be sufficient. We will simply be applying the same old nostrums to a detrimental situation. Rather than to only regulate, it has become imperative that we take cognisance of the reasons we constitute our corporate entities for. The value created by a company is produced by different contributors including employees and shareholders (Ghoshal, 2005). Ghoshal (2005) pointedly asks why the mainstream of our theory should be based on maximising the returns of just one of these contributors, the shareholders.

The need for RI and the debate thereon has never been more pertinent, with this study focusing on an aspect thereof. Abor (2007) concludes that the area of corporate governance and capital structure decisions still needs further research in order to further develop. In order to achieve a sustainable balance between business and society, responsible corporate governance is essential (Clarke and dela Rama, 2008).

If the benefit of quality corporate governance is established from a value perspective, the focus on RI and the issues pertaining to it might increase. A further possible contribution of the research project could lie in the identification of which corporate governance categories are of importance to investors from a value perspective.

1.6 Chapter layout

The flow of research determined the succession of chapters which were arranged as follows:

Chapter 2: Literature review.
Chapter 3: Research methodology.
Chapter 4: Research results.
Chapter 5: Discussion, conclusions and recommendations.

1.7 Chapter summary

This chapter supplied the background and motivation for conducting this research. After the literature was introduced, the aims of the research, research questions and the central hypothesis were explored. The research design and methodology was offered as well as the importance of

the study and the potential benefits thereof. The chapter concluded with a presentation of the chapter layout.

2. Literature Review

2.1 The importance of a literature review

The more there is known about perspectives related to the topic, the more effective the research problem can be solved (Leedy and Ormrod, 2005). A literature review is of importance for the following reasons (Mouton, 2001: 87):

- Ensuring that one does not merely duplicate a previous study.
- Discovering what the most recent and authoritative theorising about the subject is.
- To find out what the most widely accepted empirical findings in the field of study are.
- To identify the available instrumentation that has proven validity and reliability.
- To ascertain what the most widely accepted definitions of key concepts in the field are.
- To save time and avoid duplication and unnecessary repetition.

In addition researchers may become aware of gaps in the existing body of knowledge that may justify future research (Welman and Kruger, 1999). Furthermore, the literature review also ensures that the problem to be investigated is perceived by the scientific community as relevant and significant (USB, 2009).

2.2 Introduction and the concept of corporate governance

Alexakis, Balios, Papagelis & Xanthakis (2006) contend that issues that corporate governance address can be found in the literature as early as 1776 (Smith) and 1932 (Berle and Means).

According to the CIS (2008) corporate governance refers to the way in which companies are governed, and to what purpose. The Business Governance Handbook defines corporate and business governance as follows: "…the system that maintains the balance of rights, relationships, roles and responsibilities of shareholders, directors and management in the direction, conduct, conformance and control of the suitable performance of the company/business with honesty and integrity in the best long-term interests of the company, shareholders, and business and community stakeholders" (Hendrikse and Hendrikse, 2004:102). The Business Governance Handbook definition is consistent with the South African King Report 2002 that emphasises the need for enterprise with integrity in the interest of the society, environment and stakeholders

(CIS, 2008). The link between the aforementioned definitions and sustainability as well as RI is clear.

Mangena and Chamisa (2008) state that South Africa was the first developing country to develop corporate governance code of best practice via the King Report of 1994. This report drew extensively from the U.K. Cadbury Committee of 1992. Local and international developments necessitated a revision of the code in 2002. A mechanism to be relied on for enforcement of the King Report 2002 is the provisions of the amended listing requirements of the JSE (Hendrikse and Hendrikse, 2004). Further local developments include the JSE Limited launching a Socially Responsible Investment (SRI) Index in May 2004 (Sonneberg and Hamann, 2006). Corporate governance is one of the four key categories in the SRI Index.

The King III draft release was February 2009 (IOD SA, 2009). In a recent interview, Prof. Mervyn King underlines that sustainability is the primary and economic necessity for the 21st century and reporting thereon needs revision (Visser, 2009). Contemporary organisations face a sustainability challenge. Nature, society and business are inescapably interconnected in complex ways that need to be understood by decision makers (IOD, 2009). "Sustainability is the primary moral and economic imperative for the 21st century and it is one of the most important sources of both opportunities and risks for business" (IOD, 2009:12). According to Perrini and Tencati (2006) corporate sustainability is the capacity of an organisation to continue operating over a long period of time and is dependent on the sustainability of its stakeholder relationships. Indeed, a new perspective of corporate governance promotes a shift from an exclusively shareholder perspective to a stakeholder perspective (Thiry and Deguire, 2007). Therefore, for sustainability to become main stream, organisations must integrate strategy, sustainability and governance (IOD, 2009). It is reasonable to argue that the amount of information regarding the relationship between governance and sustainability will also increase (Aras and Crowther, 2008).

Organisations' governance can be on a statutory basis, as a code of principles and practices, or a combination of the two (IOD, 2009). The USA has chosen to codify a significant part of its governance in an act known as the Sarbanes-Oxley Act while South Africa and the twenty seven states in the EU, including the UK, have opted for a code of principles and practices in addition

to certain governance issues that are regulated (IOD, 2009). The statutory regime is regarded as 'comply or else' while the principles-based approach is referred to as 'apply or explain'.

In reviewing the various definitions of corporate governance, it is evident that all definitions refer to the existence of conflicts of interest between insiders and outsiders arising from the separation of ownership and control (Alexakis, et al., 2006). The authors are referring to the agent-principal relationship. The seminal work of Jensen and Meckling (1976) defines an agency relationship as a contract under which one or more persons (the principle) engage another person (the agent) to perform some service on their behalf which requires delegating some decision making authority to the agent. According to Millson and Ward (2005) agency theory forms the backbone to corporate governance. Drobetz, Schillhofer & Zimmermann (2004) considers principle-agent theory as the starting point for any discussion on corporate governance.

Agency theory argues that directors, seeking to maximise their own personal benefit, take actions that are advantageous to themselves but detrimental to shareholders (Tricker, 2009). A less optimal view of directors' behaviour is therefore apparent. Tricker (2009) concludes that agency theory, because of its simplicity and the availability of both reliable data and statistical rigorous tests, has provided a commanding approach to corporate governance theory building. Critics of agency theory speculate that it has been founded on a single, questionable abstraction that governance involves a contract between two parties, and is based on a uncertain conjectural morality that people maximise their personal utility (Tricker, 2009). The agency theory of corporate governance is depicted in figure 2.1.
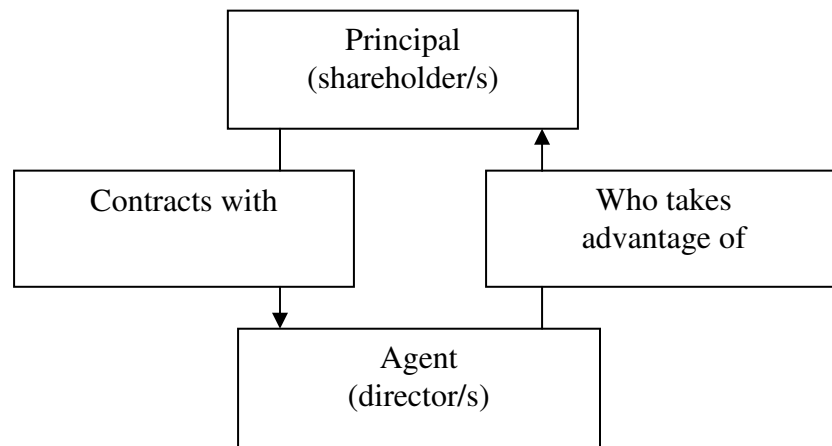
Figure 2.1 The agency theory corporate governance (Tricker, 2009: 219).

Possibly in order to build an appropriate theory of corporate governance and in the quest to find evidence in support thereof, the simplicity of agency theory and the availability of data that could be subjected to statistical testing could actually be a liability. This is exactly what Ghoshal (2005) contends as reason for the predominance of agency theory which underlies the support for the shareholder value maximisation proposition. With other theories well-designed statistical modelling is just not as straightforward.

Ghoshal (2005) is particularly critical of agency theory in his paper that proposes that bad management theories are destroying good management practices. It is argued that a management theory that gains enough standing, irrespective of being right or wrong, can start changing the behaviours of managers that start acting in accordance with the theory (Ghoshal, 2005). Business schools have not been speared of criticism in that having propagated ideological inspired amoral theories; students are freed from moral responsibility (Ghoshal, 2005). When combining agency theory with transaction cost economics, versions of game theory and negotiation analysis, the picture of a ruthless business leader that is shareholder-value obsessed often emerges (Ghoshal, 2005). According to Ghoshal (2005) the process through which bad theories are destroying good practice is depicted in figure 2.2.
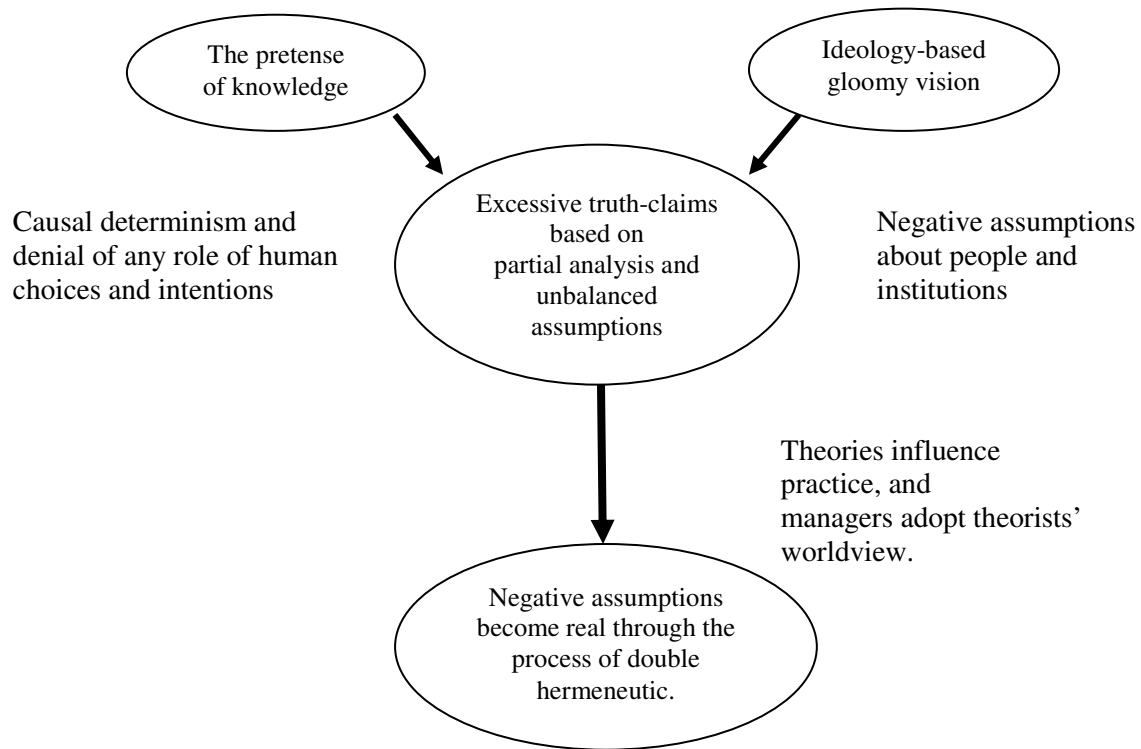
Figure 2.2 The process of bad theories destroying good practice (Ghoshal, 2005: 76).

In contrast to agency theory, stewardship theory believes that directors do not always act in a way that maximises their own personal interest. "Directors have a fiduciary duty to act as stewards of the shareholders' interest. Inherent in the concept of the company is the belief that directors can be trusted" (Tricker, 2009: 224). Criticisms of stewardship theory point out that the situation in modern companies is very different from the 19th century model and also because the theory is rooted in law, it is normative (Tricker, 2009). The relationship between shareholders and directors under stewardship theory is depicted under figure 2.3.

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                    ┌─────────────────────┐
                    │    Shareholders     │
                    └─────────────────────┘
                       │               ▲
                       ▼               │
┌─────────────────────────┐   ┌─────────────────────────┐
│  To protect their interests │ │ Who accept a fiduciary duty to │
│   nominate and elect        │ │  be stewards of those interests │
└─────────────────────────┘   └─────────────────────────┘
              │                         ▲
              ▼                         │
           ┌─────────────────────────┐
           │       Directors         │
           └─────────────────────────┘
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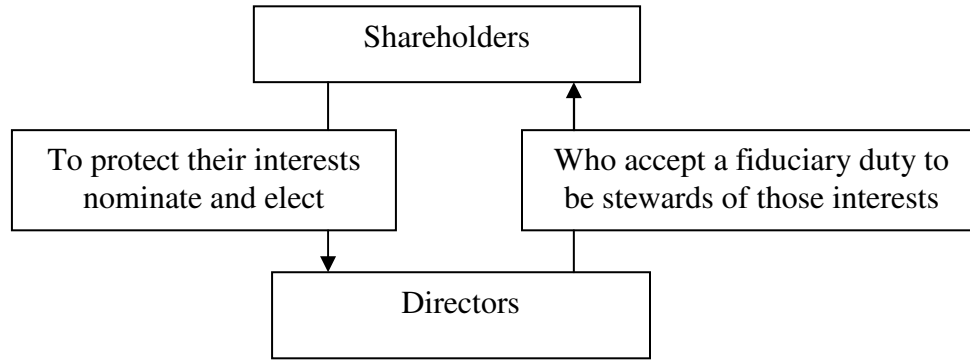
Figure 2.3 The stewardship theory of corporate governance (Tricker, 2009: 224).

Perspectives on corporate governance at a societal level, or stakeholder theory, are concerned with values and attitudes about the appropriate relationship between the individual, the organisation, and the state (Tricker, 2009). According to Aras and Crowther (2008) the recent range of problems with corporate behaviour has arguably led to prominence being given to corporate social responsibility. The authors posit that part of this effect is to recognise the concerns of all stakeholders to an organisation. The inclusive approach to governance state that the board should take into account the legitimate expectations of the company's stakeholders (IOD, 2009). Overshadowing all theoretical perspectives of corporate governance are some basic unresolved issues at a meta-philosophical level (Tricker, 2009). "All systems of governance must seek an appropriate balance between the interests of self and society. That applies to corporate governance just as it does to governance in other areas of society" (Tricker, 2009: 231).

Tricker (2009) concludes that although the significance of governance for the long term success of an organisation is understood, the theoretical underpinnings of the subject are weak and that the subject lacks a conceptual framework that adequately reflects the reality of corporate governance. The theoretical perspectives on boards and governance can best be seen as 'multiple theoretical lenses' with which to view the subject (Triker, 2009). The finance model of the firm in which the central problem is how to construct rules and incentives to align the behaviour of managers with the interests of owners, needs to be supplemented with other models of corporate control including the stewardship, stakeholder and political models (Clarke and dela Rama, 2008).

The field of research on corporate governance can be divided in two broader areas (Alexakis, et al., 2006:675):

- the more theoretical area that tries to assess the effectiveness of the various corporate governance mechanisms and the degree that corporate governance results in reducing agency costs; and

- the more empirical area that attempts to empirically relate corporate governance indicators to the economic performance and growth of companies governed under this framework. This area includes equity prices and its expected returns, the cost of equity capital as well as various valuation measures.

This study focuses more on the second area and a review of the literature related to this area of empirical work follows.

2.3 Corporate governance and the cost of equity capital

Gompers, Ishii & Metrick (2003) found that corporate governance is strongly correlated with stock returns. The authors constructed a "Governance Index" to proxy for the level of shareholder rights and an investment strategy that bought companies in the lowest decile of the index (strongest rights) and sold companies in the highest decile on the index (weakest rights) would have earned abnormal returns of 8,5% per year. Other results include that companies with stronger shareholder rights displayed higher firm value, higher profits, higher sales growth, lower capital expenditures, and made fewer corporate acquisitions. Contrary to the findings of Gompers, et al., 2003, Bauer, Guenster & Otten (2004) found a negative relationship between corporate governance and firm performance.

Chen, Chen & Wei (2004) found that corporate governance is significantly negatively associated with the cost of equity capital. The authors provide evidence that investors value firms with better corporate governance by discounting the expected cash flows at a lower rate. Their findings also have implications for the ongoing reform of corporate governance in emerging markets. It is suggested that in emerging markets in which the legal protection of investors is lacking, companies that wish to reduce the cost of equity capital, should strengthen their corporate governance mechanisms, rather than adopt more forthright disclosure policies as the priority.

Results of Ashbaugh, Collins & LaFond (2004) provide evidence that a set of key governance attributes have a significant effect on companies' cost of equity capital. The key governance attributes relate to financial information quality, ownership structure, shareholder rights, and board structure. The authors document that financial information quality is negatively related to companies' cost of equity. They also document that the other key governance attributes affect companies' cost of equity indirectly via beta.

Drobetz, et al., (2004) document a positive relationship between governance practices and firm valuation. They also found evidence that expected stock returns are negatively correlated with firm-level corporate governance, if dividend yields are used as proxies for the cost of capital. An investment strategy that bought firms with high corporate governance ratings and sold short firms with low ratings earned abnormal returns of around 12% on an annual basis. However, there might be methodology concerns regarding the study as dividend yield is an incorrect proxy for the cost of equity, in principle (Armitage and Marston, 2008).

Reverte (2009) investigated the relationship between corporate governance and the cost of equity capital for a set of Spanish firms. His findings indicate that stronger governance firms have a lower cost of equity capital with respect to firms with weaker governance. His paper suggests that the agency risk attributable to governance quality is not diversifiable. He concludes that investors therefore not only expect lower future cash flows for weak governance firms, but they also discount the expected future cash flows at higher rates.

A study from Abdo and Fisher (2007) investigated the notion that good corporate governance will result in direct financial benefit to shareholders. Their results indicated that corporate governance was positively correlated with share price returns during the period under review and therefore suggesting that investors place a premium on South African companies with good governance.

2.4 Corporate governance and the cost of debt capital

In a separate study, Ashbaugh–Skaife, Collins & LaFord (2006) investigate whether companies with strong corporate governance benefit from higher credit ratings relative to companies with

weaker governance. Whereas Gompers, et al., (2003) found that companies with stronger shareholder rights have higher share values and lower cost of equity capital, Ashbaugh–Skaife, et al., (2006) found that companies with stronger shareholder rights have lower credit ratings implying a higher cost of debt financing. Their study is one of the first to demonstrate that governance mechanisms that benefit shareholders may do so at the expense of bondholders. More specifically, they found that company credit ratings are:

- negatively associated with the number of block holders that own at least a 5% ownership in the company;
- positively related to weaker shareholder rights in terms of takeover defences;
- positively related to the degree of financial transparency; and
- positively related to overall board independence, board stock ownerships and board expertise and negatively related to CEO power on the board.

The authors demonstrate that a hypothetical company that possesses desirable governance characteristics from the bondholder's viewpoint nearly doubles its probability of receiving an investment-grade credit rating. They posit that given the spread between investment-grade and speculative-grade bond yields, improved governance can translate into significant debt cost savings for companies.

A study by Anderson, Mansi & Reeb (2004) examine the relation between board structure and the cost of debt financing. More specifically, they found that the cost of debt is inversely related to board independence and board size. Another finding is that fully independent audit committees are associated with a significant lower cost of debt financing. Their investigation also suggests that director equity ownership is not related to the cost of debt financing. However, board tenure is positively related to corporate yield spreads, suggesting that as director tenure increases, managers are potentially more able to influence board opinion. Finally audit committee size and meeting frequency exhibits a negative relation to debt costs. The authors posit that the negative relation to audit committee meeting frequency implying bondholder concern with directors actively monitoring the financial accounting process.

Funchal, Galdi & Lopes (2008) investigated the interactions between corporate governance, bankruptcy law and firms' debt financing. Their findings were that better corporate governance results in a lower cost of debt and that better corporate governance arrangement relate to firms with higher amounts of debt.

Klock, Mansi & Maxwell (2005) examine the relationship between the cost of debt financing and a governance index that contains various antitakeover and shareholder protection provisions. By segmenting the data into firms with the strongest management rights (strongest antitakeover provisions) and firms with the strongest shareholder rights (weakest antitakeover provisions), their results indicate that strong antitakeover provisions are associated with a lower cost of debt financing while weak antitakeover provisions are associated with a higher cost of debt financing. In general their results suggest that antitakeover governance provisions, although not beneficial to shareholders, are viewed favourably in the bond market.

According to Robicheaux, Fu & Ligon (2007) convertible debt is a well-recognised mechanism for reducing the agency costs of debt. Their study investigates whether firms that attempt to control agency costs of equity through strong governance structures are more likely to use an agency cost-reducing debt structure such as convertible debt. Their findings report modest confirmation of a complementary relationship between strong governance structures and the use of convertible debt among a sample of relatively large firms.

2.5 Corporate governance and financing decisions (capital structure)

Berger, Ofek & Yermack (1997) studied associations between managerial entrenchment and companies' financing decisions. Their results generally suggest that entrenched CEOs seek to avoid debt. Further results indicate board size has a negative association with leverage, companies with more outside directors tend to be highly leveraged and the CEO's tenure on office is identified as having a negative relationship with leverage.

In an African study, Kyereboah-Coleman (2007) summarised corporate governance as the processes, measures and established line of responsibility and accountability a company puts in place to ensure that the organization does well regarding finance and performance. The question

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in concern is whether there is any relationship between how an organization is governed and its capital structure, using data from Kenya. His results indicated a positive correlation between short-term and long-term debts and total leverage and board size thereby contradicting the findings of Berger, et al., (1997). Further results indicated that the independence of the board achieved through the appointment of more outside directors is negatively related to short-term leverage but positively related to long-term and total leverage. The author states that although the relationship between short-term leverage and board independence contradicts other studies, the positive relationship between board independence and both long-term and total leverage confirm the findings by Berger, et al., (1997).

Another African study examined the relationship between corporate governance and the capital structure decisions of listed companies in Ghana (Abor, 2007). His results generally indicate that listed companies pursue high debt policy with lager board size, higher percentage of non-executive directors and CEO duality. The positive relationship between the proportion of non-executive directors and leverage is consistent with the findings of Berger, et al., (1997). The author concludes the study by stating that the ability of a company to access debt capital at lower cost could be dictated to a large extent by how the market measures its corporate governance system. "Easier access to debt capital at lower cost, ultimately leads to improved company performance" (Abor, 2007:91).

2.6 Developing a corporate governance scorecard

The CIS (2008) identified the following concepts that apply to sound corporate governance in all countries where investors invest: openness, honesty and transparency; independence; accountability; responsibility; fairness; reputation and reputational risk and social responsibility. Governance quality indices are developed by rating agents, professional bodies, banks as well as academics (Florou and Galarniotis, 2007).

Florou and Galarniotis (2007:981) summarise several similarities as well as significant differences between different rating systems.

Similarities

- Rating providers usually draw on disclosure requirements, stock exchange regulation and corporate governance codes and principles in order to choose the company attributes and construct the governance score;
- Rating providers appear to evaluate governance quality around certain dimensions, including shareholder rights, board structure and composition, disclosure and transparency;
- Required information is primarily collected from annual reports, other company documents, websites and press releases.

Differences

- Diversity in the selection of company indicators to be included in the governance score;
- The total number of company indicators differ substantially;
- Weighting strategy according to the agent's priorities. Assigning different weightings to different governance dimensions introduces subjective judgement.

Florou and Galarniotis (2007) argue that although ratings may provide useful information regarding governance practices, their reliability is a concern given the apparent lack of consistency between rating systems. However, conscientious boards would want to benchmark their company's corporate governance performance against their peers (Allen, Renner & English, 2004). The following tables detail four major rating systems:

Rating System Provider	Institutional Shareholder Services (ISS)	Standard & Poor's (S & P)	Governance Metric International (GMI)	The Corporate Library (TCL)
Number of Variables and Categories Used	61 variables in 8 categories	Number not available. 4 categories	600 variables in 7 categories	Number not available. 6 categories
Targeted Client Base	Companies being rated, institutional investors, other interested parties	Directors and officers of rated companies	Institutional investors and other interested parties	Institutional investors and other interested parties
Cost	$10,000 - $17,000 annual subscription fee	$75,000 - $200,000 for review	$18,000 subscription – $50,000 comprehensive review	Variable hourly access rate and number of users (1-24) per year $3,000 to $80,000

Table 2.2 Categories of corporate governance rating systems (Allen, et al., 2004:40).

	ISS	S & P	GMI	TCL
Name of Rating	CGQ (Corporate Governance Quotient)	CGS (Corporate Governance Score)	GMI rating (Governance Metric International)	BER (Board Effectiveness Rating)
Number of Scores	Overall + 8 Categories	Overall + 4 categories	Overall + 7 categories	Overall + 6 categories
Categories:				
1.	Board structure and composition	Board structure and process	Board accountability	Board structure and makeup of skills
2.	Executive and director compensation	Financial stakeholder rights and relations	Executive compensation	CEO employment contracts and compensation practices
3.	D&O stock ownership	Ownership structure and influence	Ownership base and potential dilution	Outside director shareholdings
4.	Charter and bylaw provisions	Financial transparency and information disclosure	Financial disclosure and internal controls	Ownership
5.	Audit		Market for control	Accounting and audit oversight
6.	Takeover practices		Reputational and socially responsible investment issues	Board decision making
7.	Director education		Shareholder rights	
8.	Qualitative factors			

These rating services rely on public domain information and are based what is known as the Scoreboard (Donker and Zahir, 2008). The main objectives of the scoreboard system are (Donker and Zahir, 2008: 88-89):

- Facilitating the work of analysts and investors through an overview of all relevant issues of good governance;
- Enabling companies to assess and attain the quality of their own governance situation; and
- Allowing setting minimum scores by investors for governance as part of general investment policy.

The authors posit that the scoreboard's most important contribution to the market is its mere existence in a wrecked market reputation.

According to Allen, et al., (2004) advantages of purchasing a scorecard include that a company can track improvements in governance practices, scorecards can enhance a company's ability to compete by adopting better standards and performance and meeting the letter of the law might increase the actual spirit of the law. Furthermore, high ratings can provide an additional marketing tool. However, it is pointed out that governance scorecards are also flawed. With rating services charging fees for the scores, there appears to be a lack of independence. Another concern is whether the rating service or company being rated verifies the data. Finally, by simply improving the score, actual board performance within closed meetings isn't guaranteed.

Donker and Zahir (2008) investigated the most popular corporate governance rating systems and examined their usefulness to shareholders and the public. The authors argue that there is a weak relationship between corporate performance and corporate governance rating obtained by these rating systems. However, the existence of such systems represents a safety value to minimally control fraud and mismanagement.

According to Abdo and Fisher (2007) corporate governance is difficult to measure because of its subjectivity and intangibility with respect to several key issues, e.g. the true independence of a director. They do however note that many aspects are factual including the level of disclosure of compliance with a code of best practice. The authors designed and developed a broad measure of

corporate governance disclosure, the G-Score, based largely on King II principles and S&P International CGS index. The G-Score is a composite measure of governance disclosure factors within seven corporate governance categories. The seven categories are board effectiveness, remuneration of directors, accounting and auditing, internal audit, risk management, sustainability attributes and code of ethics. The categories and governance disclosure factors were selected after carefully analysing the principles outlined in the King II report. In addition they considered the practicalities and usefulness of each disclosure factor to a user.

Abdo and Fisher (2007) calculate a company's G-Score by assigning a 3 point discriminate scoring scale to each governance disclosure factor. Attributes that do not exist of for which no evidence of disclosure is obtained in the annual report scores 0 points. Where the attribute does exist or is disclosed in the annual report, 1 point is assigned and where there is evidence of implementation/monitoring of practices, 2 points are assigned. Following the scoring of the governance disclosure factors, a percentage score is attained for each category by taking the company's score divided by the maximum score attainable for that category. Table 4 shows an example of one category in the scorecard.

Table 2.3 G-Score extract - category 2, the remuneration of directors (Abdo and Fisher, 2007:45)

No	Governance Disclosure Factor	Score	Max	%
1	Existence of remuneration committee	2	2	100%
2	Majority members are non executive	2	2	100%
3	Remuneration philosophy codified and disclosed in annual report	1	2	50%
4	Balance between guaranteed salary and performance element (share options)	1	2	50%
5	Full disclosure of individual director remuneration including benefits	2	2	100%
Governance Disclosure Points		8	10	80%

Only publically disclosed information was used by Abdo and Fisher (2007) to score companies. Their first source of information was the annual report after which the company's website was searched as a secondary source of information. A benefit of their study is that comparable,

objective and quantifiable data on South African companies' governance disclosures can be obtained.

Regarding another South African perspective, Deloitte discontinued its Good Governance Awards in 2008 (Dreyer, 2009). The four categories used in 2007 as measure of good corporate governance were remuneration practices, corporate integrity and ethics, risk management as well as broad based black economic empowerment and transformation. The categories used are not consistent with previous years but rather focus on issues Deloitte considers topical.

An interesting finding of the Ashbaugh-Skaife, et al., (2006) study was that governance mechanisms that benefit shareholders may do so at the expense of bondholders. Although good corporate governance usually serves the interest of all stakeholders, there can be discrepancies between the interests of bondholders and equity holders, particularly around questions of promoting short-term performance rather than long-term stability (FitchRatings, 2007). Agency theory refers to the agent-principal relationship that result in conflict of interest between management and all external stakeholders leading to information asymmetry between the parties. The second conflict of interest that bondholders face is with shareholders (Ashbaugh-Skaife, et al., 2006). The authors state that in levered firms, shareholders have incentives to undertake actions that can transfer wealth from bondholders to themselves. They posit that this wealth transfer can take several forms that affect the mean and variance of the firm's future cash flows. Therefore, the governance variables they use proxy not only for the agency conflicts between management and external stakeholders, but also for potential conflicts between bondholders and shareholders that can result in wealth transfer effects.

FitchRatings (2007) focuses on the effectiveness of corporate governance practices in companies from the perspective of bondholders and other credit investors. Their corporate governance evaluation centres around, but is not limited to, the following overarching categories: board effectiveness, board independence, management compensation, related party transactions as well as integrity of accounting and audit. The said agency acknowledge that although exceptionally strong corporate governance, in and of itself, does not generally benefit a rating, it may justify other positive recognition in the credit analysis of the company.

2.7 Methodology issues

2.7.1 Endogeneity

According to Donker and Zahir (2008) several corporate governance ratings systems reduce the complex corporate governance process and performance into a single score. It is argued that such an outcome does not reflect the real nature of corporate governance or its performance. Hence, ranking should be interpreted carefully. The authors recommend that future research should focus on endogenous relations between corporate governance variables. They call for more attention to be paid to single relationships and interdependences between corporate governance variables and firm performance. Also advocated is that instead of single period analyses, panel data analyses should be used in empirical corporate governance research to measure the influence of changes in corporate governance on firm performance. In order to study the interaction between capital structure, corporate governance and value when examining a wide sample of firms, the researcher has to take into account the relations demonstrated in figure 1.1, examine concerns of endogeneity and reciprocal causality, and make sure there are complementarities between all the three factors (La Rocca, 2007). It should be noted that the two African studies reviewed employ panel data methodology (Abor, 2007; Kyereboah-Coleman, 2007).

Bhagat and Jefferis (2002) argue that takeover defences, takeovers, management turnover, corporate performance, capital structure and corporate ownership structure are interrelated. Therefore, from an econometric viewpoint, the appropriate way to study the relationship between any two of these variables would be to set up a system of simultaneous equations specifying the relationships between these variables. The authors point out that the specification and estimation of such a system of simultaneous equations is non-trivial. According to La Rocca (2007) most of the previous empirical studies have been incomplete for the reason that the studies stop at the analysis of how single governance mechanisms create value rather than investigating the results of a concerted application of different ones all together. Donker and Zahir (2008) affirm that empirical estimates of the influence that single corporate control mechanisms have on firm performance will likely be misleading. "If variables are endogenous (because of interdependences), the results are not reliable" (Donker and Zahir, 2008:90). An issue that plagues virtually all empirical studies in the field is endogeneity (Drobetz, et al., 2004).

Ashbaugh-Skaife, et al., (2006) echoes Bhagat and Jefferis (2002) argument about the specification and estimation difficulties of a system of simultaneous equations. The former authors elucidate that the econometric solution for endogeneity is to use two-stage procedures that rely on instrumental variables to generate predicted values of the independent variables (i.e. the set of governance variables) that are uncorrelated with the error term in the structural model. However, the authors note that instrumental variables are very difficult to identify in most accounting research settings, particular with respect to governance variables in that there is no well-developed theory or model of the economic drivers of governance. Consequently, the lack of theory on the determinants of corporate governance propels the authors to draw into question the adequacy of any instrumental variable approach to deal with potential endogeneity issues.

Ashbaugh-Skaife, et al., (2006) include potentially correlated omitted variables to expand their ordered logit models to cope with potential endogeneity issues. They argue that including past performance measures, potentially a correlated omitted variable, in their base model along with the set of governance variables is equivalent to using two-stage procedures where they first regress each of the governance variables on the past performance variables and then include the predicted values from the first stage model into the structural model. Furthermore, they argue that in addition to the supplementary results, other features of their setting suggest that correlated omitted variables are not driving their results. Bhojraj and Sengupta (2003) control for potential endogeneity by using a simultaneous equations approach.

In a discussion of the study of Ashbaugh-Skaife, et al., (2006), Weber (2006) notes that as with previous research in this field, there is a fundamental endogeneity problem in the authors' research design. Although the difficulties with addressing endogeneity are acknowledged, Weber (2006) argues there are alternative research designs that the authors could have employed where endogeneity may be less of a concern, for example a changes specification. Another concern of Weber (2006) is that endogeneity is causing some of the authors' parameter estimates to be inconsistent.

In an earlier study, Ashbaugh, et al., (2004) address the endogeneity concern by including a change analysis as well as a firm fixed effects approach. "Whereas the change analysis controls

for the effect of the unobservable features by estimating a model using first differences, the firm fixed effects approach specifically controls for the time invariant unobserved features that affect individual firms" (Ashbaugh, et al., 2004:32). Anderson, et al., (2004) address the endogeneity concern by using three approaches. They use two-stage least squares instrumental variable regressions, they control for simultaneity by incorporating the debt yield spread from the prior period into the regression and finally they use first-difference regressions.

2.7.2 Employing cost of equity capital proxies

As the study aims to investigate the relationship between corporate governance and the cost of capital, suitable proxies for the cost of equity and the cost of debt should be used.

In reviewing the cost of equity proxies, several researchers note that the cost of equity is hard to measure (Armitage and Marston, 2008; Botosan, 2006; Cooper, 2006). Cost of equity is considered to be the discount rate the market applies to a firm's expected future cash flows to arrive at the current stock price (Botosan and Plumlee, 2005). Hence, it is not directly observable and therefore hard to measure. It is not surprising that a multitude of proxies are found in empirical research and that research into alternative methods continues (Botosan, 2006). No well-accepted approach for estimating cost of equity capital exists (Botosan and Plumlee, 2005; Chen, et al., 2004). "It would be nice to pretend that judgment is unnecessary and to specify an easy, precise way of determining the exact cost of equity capital. Unfortunately, this is not possible – finance is in large part a matter of judgment, and we must simply face that fact." (Brigham and Ehrhardt, 2005).

Armitage and Marston (2008) interviewed 16 senior executives on the link between a company's disclosure level and its cost of capital. Most of their sample companies use the CAPM to estimate the cost of equity in-house or they simply ask analysts. According to Armitage and Marston (2008) the prevalence of the CAPM to estimate the cost of equity is in line with the findings of other investigations in the UK. According to Botosan (2006) the validity of the CAPM itself is questionable. "The overriding conclusion from numerous empirical tests of the CAPM is that it is not descriptive." (Botosan, 2006:32). Of particular concern is that beta might not capture all the risk factors priced by the market.

Botosan and Plumlee (2005) assess the empirical reliability of five popular methods of deducing firm-specific cost of equity capital. These methods proposed have been carefully derived from the dividend discount model. The authors conclude that two of the five approaches produce cost of equity estimates that are related to various measures of risk in a theoretically predictable and stable manner (Botosan, 2006). One approach is the target price method (Botosan and Plumlee, 2002), while the other preferred approach is based on the price-earnings growth (PEG) ratio method of Easton (2004). Botosan and Plumlee (2005) recommend that where firm-specific estimates of expected cost of equity capital is required; these two methods should be relied on.

Reverte (2009) estimates the cost of equity capital by using the PEG ratio method of Easton (2004). According to Reverte (2009) the PEG ratio method was preferred to the target price method because of data restrictions. The target price method requires an estimation of future dividends and share prices.

In estimating the cost of equity, Chen, et al., (2004) incorporate four different models. They calculate the arithmetic average of these four models as their estimated cost of equity. However, two of the models used were empirically assessed by Botosan and Plumlee (2005), and not recommended. One of the other models used, is the modified PEG ratio model of Easton (2004).

"Proponents of the PEG ratio (which is the price-earnings (PE) ratio divided by the short-term earnings growth rate) argue that this ratio takes account of differences in short-run earnings growth, providing a ranking that is superior to the ranking based on PE ratios." (Easton, 2004:73). Although the PEG ratio may provide an improvement over the PE ratio, Easton (2004) argues that it is still too simplistic because it implicitly assumes that the short-run growth forecast also captures the long-run future. Easton (2004) refines the PEG ratio ranking by means of simultaneously estimating the expected rate of return and the rate of change in abnormal earnings beyond the (short) forecast horizon. He proposes that this method may also be used by researchers interested in determining the effects of various factors on the cost of equity capital.

Martins, Galdi, de Lima, Necyk & Abe (2006) investigated whether there are statistically significant differences among the costs of equity capital of Brazilian companies estimated by

four models and their variants. The models used were Gordon, CAPM, APM and Ohlson-Juettner. The authors conclude that the CAPM is the most sensitive model to variations in its formulation. Both the CAPM and APM have very strong subjective values as well as having technical problems when applied in a developing country. The models based on earnings and dividend projections (Gordon and Ohlson-Juettner) resulted in mutually equivalent mean values when the premises used were the same. Martins, et al., (2006) comment on the theoretical superiority of the Ohlson-Juettner model as it was developed with fewer premises and in a more analytical manner when compared with the Gorden model. According to the authors that could explain the growing acceptance of the Ohlson-Juettner model in international works on cost of equity capital. Table 2.4 presents a summary of the advantages and disadvantages of the models used.

Table 2.4 Advantages and disadvantages of the models (Martins, et al., 2006: 142)

Model	Advantages	Disadvantages
Gordon	1. Ease of understanding and implementation (simple model).	1. Premise of fixed dividend growth (simple model) is unrealistic in practise (BOTOSAN and PLUMLEE, 2000, p13). 2. Premise that the expected return to the shareholders after a period of abnormal growth (extended model) will always be equivalent to the return on equity is also not always the case in practise (BOTOSAN and PLUMLEE, 2000, p13). 3. Quite simple hypotheses regarding the future behaviour of companies (MARTINS, 2001, p212). 4. Since this model (extended) was developed ex post facto, without analytic formulation and without a closed response, it must be resolved by numerical means (BOTOSAN and PLUMLEE, 2000, p13).
CAPM	1. Most widespread model in the market. 2. Has strong economic grounding.	1. According to Roll (1997), the model cannot be tested empirically, since it is not possible to know the expected return of the market portfolio, which must represent all assets in the economy. Schor, Bonomo and Pereira (2004, p55) argue that "it is impossible to observe the market portfolio, and the real hypothesis verified in the tests proposed for the CAPM is not the hypothesis of Sharpe.". 2. Subjectivity in the estimation of the expected market portfolio return. 3. The premise of an efficient market is widely criticized nowadays.
APM	1. Addition of more factors that influence the return of the securities than the CAPM. 2. Intuition of the model similar to that of CAPM. 3. Does not need hypotheses on the distribution of earnings per share or the structure of individuals' preferences (SCHOR, BONOMO E PEREIRA, 2004)	4. There is no economic theory that says what factors can be correlated in the observed equation and to verify that that equation really identifies the desirable factors.
OJ	1. Analytic development of the model. (OHLSON and JUETTNER-NAUROTH, 2005) 2. Depends on fewer premises than the other models. 3. Uses accounting variables in its formulation. (LOPES and MARTINS, 2006).	1. It depends on the expectations, and for this reason uses analysts' projections of the market as a proxy. 5. Because it uses analysts' projections, which are demonstrably optimistic, the result can be biased.

In a study examining the association between firms' implied cost of equity capital, the strength of their shareholder rights regimes, and the levels of their disclosures of financial-related attributes, the Ohlson and Juettner-Nauroth (2003) model was used as proxy for the cost of equity capital (Cheng, Collins & Huang, 2006). The authors also used Easton's (2004) PEG model to derive the implied cost of equity capital resulting in very similar results.

2.7.3 Employing cost of debt capital proxies

Sengupta (1998) uses two alternative measures of the cost of debt of a company: (1) the yield to maturity on new debt issues and (2) the total interest cost of new debt issues. Bhojraj and Sengupta (2003) explored the influence of corporate governance mechanisms on bond ratings and yields. Anderson, et al., (2004) also used the yield spread as the cost of debt. The study of Ashbaugh-Skaife, et al., (2006) used firm level credit ratings rather than issue specific measures in their research setting (Weber, 2006).

According to Weber (2006) there are benefits and costs associated with using firm level credit ratings as oppose to issue specific measures. The author notes that the benefit of using firm level credit rating as proxy for the cost of debt is that firm level credit ratings are less likely to reflect issue specific characteristics that protect lenders from default. He concludes that compared to issue specific debt ratings, firm level credit ratings are more likely to be impacted by poor corporate governance. However, the cost associated with using firm level credit ratings is that all of the other aspects of the debt contract that can be used to reduce agency costs are implicitly ignored (Weber, 2006). By selecting a measure of the cost of debt that is not affected by issue specific characteristics may inflate the impact of governance on the cost of debt.

In a study regarding information precision and the cost of debt, Gu and Zhao (2006) examine two measures of the cost of debt; bond ratings and yield spreads on new bond issuances. According to the authors, bond ratings are closely related to firms' default risk and interest cost and have been widely used as a proxy for the cost of debt. The yield spread is a direct measure of the issuing firms' ex ante incremental cost of borrowing and is used as a proxy for the cost of debt in prior studies (Anderson, et al.,2004) (Bhojrah and Sengupta, 2003) (Goss and Roberts,

2006) (Mansi, Maxwell & Miller, 2006) (Sengupta, 1998). In the studies by Goss and Roberts (2006) and Mansi, et al., (2006) bond ratings is used as a firm level control variable.

According to Ahmed, Billings, Morton & Stanford-Harris (2002) prior research has indicated that firm's debt ratings are closely associated with its eventual payoff of interest and principle obligations and there is substantial support for using debt ratings as a proxy for firms' cost of debt.

Funchal, et al., (2008) considered firm debt to be the balance sheet short-term and long-term debt plus the accounts payable to suppliers. The cost of debt is then calculated as a total year's interest expense for each firm divided by its mean debt over the same period.

2.7.4 Related variables

The literature review ensures that important variables that are likely to influence the problem are not left out of the study (USB, 2009).

Regarding the cost of equity an appropriate measure of expected return will be positively related to beta and negatively related to size and market-to-book ratio (Ashbaugh, et al., 2004; Reverte, 2009). A review of the related literature has revealed that several studies control for these various risk factors (Ashbaugh, et al, 2004; Chen, 2004; Cheng, et al., 2006; Reverte, 2009).

A review of the related literature has identified various firm specific control variables with regards to the cost of debt. Anderson, et al., (2004) uses firm size, leverage, risk and firm performance as control variables in their study. The control variables used by Ashbaugh-Skaife, et al., (2006) include leverage, return-on-assets and interest cover as proxy for a firms' default risk. Firm specific control variables used by Klock, et al., (2005) include size, leverage, profitability and institutional ownership. Goss and Roberts (2006) include size, market-to-book ratio, earnings before interest and tax, leverage and institutional ownership as firm specific control variables. According to Gu and Zhao (2006) factors related to the cost of debt that have been identified in the literature include profitability, volatility of profitability, size, risk, leverage and interest cover.

2.8 Chapter summary

This chapter contains the literature review of the research project. After the significance of the literature review was emphasised, the concept and theoretical aspects of corporate governance was explained. The chapter further reviewed the literature regarding previous studies concerning corporate governance and the cost of equity and the cost of debt respectively. Of importance for the research project was the G-Score that was identified as a measure of corporate governance. Methodological concerns were identified as well as the proxies used for cost of debt and cost of equity respectively. The chapter concluded by identifying other important variables of relevance to the study.

3. Research Methodology

3.1   Introduction

Research has been defined as a systematic and organised process of collecting, analysing and interpreting data in order to increase our understanding or solve a specific problem (Leedy and Ormrod, 2005). The aim of business and management research is to develop management understanding of how business organisations operate (USB, 2009). Further characteristics of business and management research include the following (USB, 2009):

- Broad in nature.
- Uses from other disciplines.
- Invariably the focus is on people's behaviour and attitudes.
- Workplace related problems are investigated.
- The context within which research takes place is evolving fast.
- A number of stakeholders have to be satisfied.
- There is a strong emphasis on the application of knowledge.

The ultimate purpose of research is to make a contribution to the body of accumulated knowledge (USB, 2009). According to Leedy and Ormrod (2005) the two basic principles of research are to seek the answer to a problem in the light of the data that relate to the problem; and although collecting data for study and organizing it for inspection requires care and precision, extracting meaning from the data is all-important. In order to comprehend knowledge creation, it has to be understood what theory is (Morrison, 2003). Theories serve as the link between experience/observation and knowledge/understanding (Morrison, 2003).

Having defined research and stated its objectives, the next step entails a process to accomplish the objectives. The research process directs the research project in a systematic manner in order to find a solution for a specific problem and thereby generating new knowledge (USB, 2009). In brief the research process can be encapsulated as follows (USB, 2009):

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┌─────────────────────────────────────────────────────────────────────┐
│                    ┌───────────────────────────┐                      │
│                    │     Research Process       │                     │
│                    └───────────────────────────┘                      │
│                                                                       │
│         Identify and Define Research Problem                          │
│                      ➡                                                │
│              Theory / Practice                                        │
│                         ➡                                             │
│                  Hypotheses / Conceptualization                       │
│                            ➡                                          │
│                      Research Design                                  │
│                             ➡                                         │
│                         Data collection                              │
│                                ➡                                      │
│                             Data Analysis                             │
│                                  ➡                                    │
│                                Findings                               │
│                                                                       │
└─────────────────────────────────────────────────────────────────────┘
```
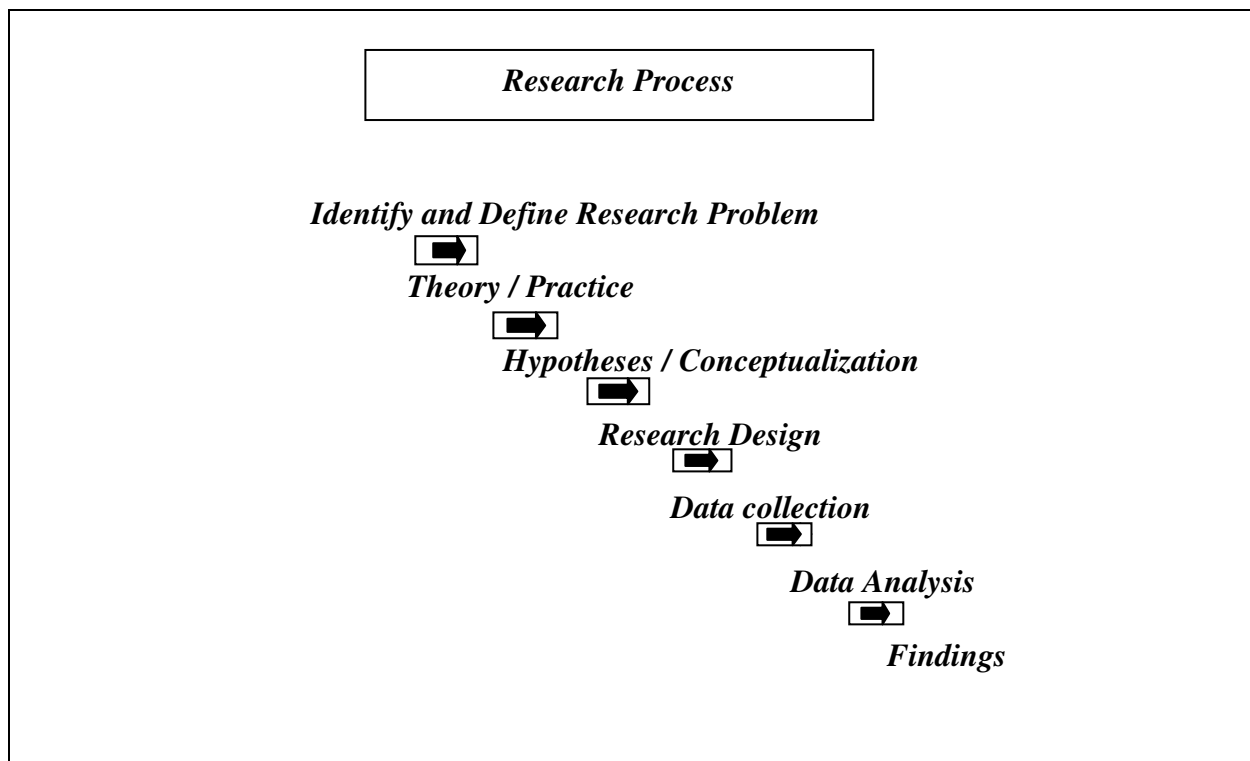
The process is not linear, but cyclical (Leedy and Ormrod, 2005). Often the research process is unstructured and unpredictable (USB, 2009).

3.2   Research design

According to Holden and Lynch (2004) research should not be methodologically led. The authors contend that the researcher's philosophical position and the social science phenomenon investigated should drive the methodology chosen. In developing a philosophical perspective, the researcher has to make core assumptions regarding the nature of society and the nature of science (Holden and Lynch, 2004). "The sociological dimension involves a choice between two views of society: regulatory or radical change" (Holden and Lynch, 2004: 398). Modernism has its roots in a rational view of society whereas radical change underlies post-modernism (Holden and Lynch, 2004).

The nature of science involves either positivistic or an interpretivist approach to research (USB, 2009). The positivistic approach to the social sciences developed from the natural sciences where social science researchers employ the methods of the natural sciences to investigate social

phenomena whereas the interpretivist approach arose as critics argued that both sciences are distinctly different (Holden and Lynch, 2004). Ghoshal (2005) argues that it is wrong to pretend that the methods of the natural sciences can be indiscriminately applied to business studies that have become a branch of the social sciences. Business school academics have largely adopted the scientific approach of the natural sciences and thereby replaced all notions of human intentionality with causal determinism (Ghoshal, 2005).

Several core assumptions concerning ontology (reality), epistemology (knowledge), human nature (pre-determined or not) and methodology describe these approaches regarding the nature of science while the researcher's ontological position predicates the other assumptions (Holden and Lynch, 2004). Alternative philosophical paradigms are displayed in table 3.1 whereas a scheme for analysing the assumptions about the nature of social science is depicted in figure 3.1.

Table 3.1 Philosophical paradigms (USB, 2009).

Two Main Paradigms

Positivistic:

- *Quantitative*
- *Objectivist*
- *Scientific*
- *Experimentalist*
- *Traditionalist*

Interpretivist:

- *Qualitative*
- *Phenomenological*
- *Subjectivist*
- *Humanistic*
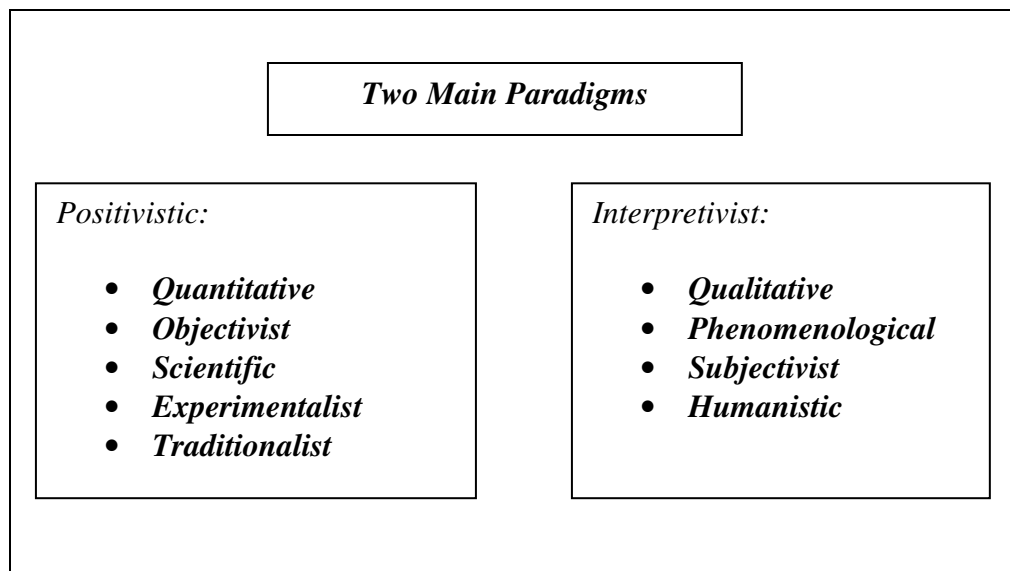
The Subjective-Objective Dimension

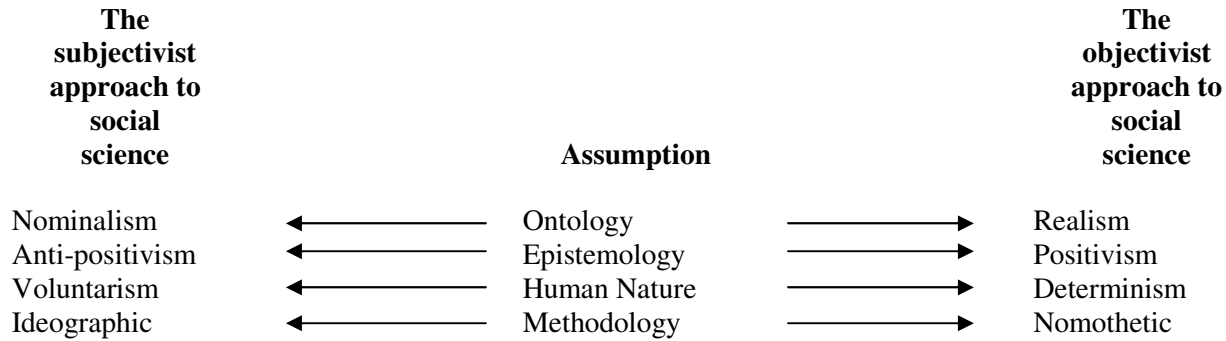| The subjectivist approach to social science		Assumption		The objectivist approach to social science
Nominalism	⟵	Ontology	⟶	Realism
Anti-positivism	⟵	Epistemology	⟶	Positivism
Voluntarism	⟵	Human Nature	⟶	Determinism
Ideographic	⟵	Methodology	⟶	Nomothetic

Figure 3.1 Assumptions about the nature of social sciences (Holden and Lynch, 2004: 399)

The following are the purpose of following research design alternatives (USB, 2009):

- Exploratory: To formulate the problem, develop hypotheses, identify variables, establish priorities for research, refine ideas, clarify concepts, etc.

- Descriptive: To describe characteristics of certain groups, estimate proportion of people in a population who behave in a given way, and to direct directional predictions.

- Causal: To provide evidence of cause-and-effect relationships between variables, the sequence in which events occur, and/or to eliminate other possible explanations.

A caveat to be aware of is the role of causal theories in the social sciences. Ghoshal (2005) contends that causal theories only have a limited role in the social sciences as for instance where the analysis of phenomena involving the interplay among a very large number of diverse actors, the intentions of individual participants can be ignored. Such conditions are however only attained in a limited number of instances pertaining to the study of management (Ghoshal, 2005).

3.2.1 Qualitative and quantitative research design approaches

Quantitative research is normally used to answer questions regarding the relationships between measured variables for the purpose of explaining, predicting and controlling phenomena while qualitative research is generally used to answer questions about the complex nature of phenomena, often with the purpose of understanding the phenomena from the participant's point of view (Leedy and Ormrod, 2005). As previously indicated in Table 3.1, the quantitative approach is premised on the positivistic paradigm while the qualitative approach is based on the

interpretivist paradigm. The research design alternative associated with the quantitative approach is descriptive research while the qualitative approach is associated with exploratory research. Table 3.2 describes distinguishing characteristics of quantitative and qualitative research approaches.

Table 3.2 Distinguishing characteristics of quantitative and qualitative research approaches (Leedy and Ormrod, 2005: 96)

Question	*Quantitative*	*Qualitative*
What is the purpose of the research?	• To explain and predict • To confirm and validate • To test theory	• To describe and explain • To explore and interpret • To build theory
What is the nature of the research process?	• Focused • Known variables • Established guidelines • Predetermined methods • Somewhat context-free • Detached view	• Holistic • Unknown variables • Flexible guidelines • Emergent methods • Context-bound • Personal view
What are the data like, and how are they collected?	• Numeric data • Representative, large sample • Standardized instruments	• Textual and/or image-based data • Informative, small sample • Loosely structured or nonstandardized observations and interviews
How are the data analyzed to determine their meaning?	• Statistical analysis • Stress on objectivity • Deductive reasoning	• Search for themes and categories • Acknowledgment that analysis is subjective and potentially biased • Inductive reasoning
How are the findings communicated?	• Numbers • Statistics, aggregated data • Formal voice, scientific style	• Words • Narratives, individual quotes • Personal voice, literary style

3.2.2 Selected research approach

As the aim of this research project was to gain insights into a relationship, a descriptive research design alternative using a quantitative approach was considered appropriate. The research project was located within the positivistic research paradigm and the quantitative approach was selected to achieve the aim of the study with the goal to explore possible correlations among variables.

Furthermore, the quantitative research approach was considered appropriate as the research project involved the systematic collection of measurable data and the statistical analysis thereof. All of the relevant concepts and variables have accepted measures and cannot be considered as underdeveloped.

As this research project was a mini-dissertation, a cross-sectional design was used instead of a longitudinal design. The use of panel data methodology was therefore not possible using the current research design limited to a single time period. La Rocca's (2007) concerns of endogeniety and reciprocal causality that could be addressed through the use of refined econometric techniques were not considered for the above mentioned reasons.

3.3   Research aim, research questions, hypotheses.

The general and specific research questions as well as the central hypothesis were stated in section 1.3.

Hypotheses are preconceptions developed regarding the relationships represented in data and are typically based on theory, business practice or previous research (USB, 2009). Welman and Kruger (1999) describe a hypothesis as a tentative assumption or preliminary statement about the relationship between two or more things that needs further examination.

According to Diamantopoulos and Schlegelmilch (2000: 136) the following are the steps in hypothesis-testing:
- Formulate the null and alternative hypothesis.
- Specify the significance level.
- Select an appropriate statistical test.
- Identify the probability distribution of the test statistic and define the region of rejection.
- Compute the value of the test statistic from the data and decide whether to reject or not rejecting the null hypothesis.

In terms of the specific research questions the sub-hypotheses were:

1. H0: There is no relation between corporate governance and the cost of equity capital in the twenty largest listed companies in South Africa.
   H1: There is a relation between corporate governance and the cost of equity capital in the twenty largest listed companies in South Africa.

2. H0: There is no relation between corporate governance and the cost of debt capital in the twenty largest listed companies in South Africa.
   H1: There is a relation between corporate governance and the cost of debt capital in the twenty largest listed companies in South Africa.

3. H0: There is no relation between board effectiveness as corporate governance disclosure category and the cost of equity capital in the twenty largest listed companies in South Africa.
   H1: There is a relation between board effectiveness as corporate governance disclosure category and the cost of equity capital in the twenty largest listed companies in South Africa.

4. H0: There is no relation between board effectiveness as corporate governance disclosure category and the cost of debt capital in the twenty largest listed companies in South Africa.
   H1: There is a relation between board effectiveness as corporate governance disclosure category and the cost of debt capital in the twenty largest listed companies in South Africa.

5. H0: There is no relation between remuneration of directors as corporate governance disclosure category and the cost of equity capital in the twenty largest listed companies in South Africa.

   H1: There is a relation between remuneration of directors as corporate governance disclosure category and the cost of equity capital in the twenty largest listed companies in South Africa.

6. H0: There is no relation between remuneration of directors as corporate governance disclosure category and the cost of debt capital in the twenty largest listed companies in South Africa.

   H1: There is a relation between remuneration of directors as corporate governance disclosure category and the cost of debt capital in the twenty largest listed companies in South Africa.

7. H0: There is no relation between accounting and auditing as corporate governance disclosure category and the cost of equity capital in the twenty largest listed companies in South Africa.

   H1: There is a relation between accounting and auditing as corporate governance disclosure category and the cost of equity capital in the twenty largest listed companies in South Africa.

8. H0: There is no relation between accounting and auditing as corporate governance disclosure category and the cost of debt capital in the twenty largest listed companies in South Africa.

   H1: There is a relation between accounting and auditing as corporate governance disclosure category and the cost of debt capital in the twenty largest listed companies in South Africa.

9. H0: There is no relation between internal audit as corporate governance disclosure category and the cost of equity capital in the twenty largest listed companies in South Africa.

   H1: There is a relation between internal audit as corporate governance disclosure category and the cost of equity capital in the twenty largest listed companies in South Africa.

10. H0: There is no relation between internal audit as corporate governance disclosure category and the cost of debt capital in the twenty largest listed companies in South Africa.

    H1: There is a relation between internal audit as corporate governance disclosure category and the cost of debt capital in the twenty largest listed companies in South Africa.

11. H0: There is no relation between risk management as corporate governance disclosure category and the cost of equity capital in the twenty largest listed companies in South Africa.

    H1: There is a relation between risk management as corporate governance disclosure category and the cost of equity capital in the twenty largest listed companies in South Africa.

12. H0: There is no relation between risk management as corporate governance disclosure category and the cost of debt capital in the twenty largest listed companies in South Africa.

    H1: There is a relation between risk management as corporate governance disclosure category and the cost of debt capital in the twenty largest listed companies in South Africa.

13. H0: There is no relation between sustainability as corporate governance disclosure category and the cost of equity capital in the twenty largest listed companies in South Africa.

    H1: There is a relation between sustainability as corporate governance disclosure category and the cost of equity capital in the twenty largest listed companies in South Africa.

14. H0: There is no relation between sustainability as corporate governance disclosure category and the cost of debt capital in the twenty largest listed companies in South Africa.

    H1: There is a relation between sustainability as corporate governance disclosure category and the cost of debt capital in the twenty largest listed companies in South Africa.

15. H0: There is no relation between ethics as corporate governance disclosure category and the cost of equity capital in the twenty largest listed companies in South Africa.

    H1: There is a relation between ethics as corporate governance disclosure category and the cost of equity capital in the twenty largest listed companies in South Africa.

16. H0: There is no relation between ethics as corporate governance disclosure category and the cost of debt capital in the twenty largest listed companies in South Africa.

    H1: There is a relation between ethics as corporate governance disclosure category and the cost of debt capital in the twenty largest listed companies in South Africa.

3.4 Sample, research/data collection instruments and variables

The delimitation of the research project was clearly stated in the title. The study only investigated the relationship between corporate governance and the cost of capital in the twenty largest listed companies in South Africa. The top twenty companies were selected based on the Financial Mail Top Companies 2008 ranked by turnover. The final sample consisted of sixteen companies as no cost of equity- or cost of debt proxies could be calculated or obtained for the other four companies. Further elucidation follows. The most recent annual reports were selected

at the start of the study with the financial year ends of the sixteen companies ranging from 30 June 2008 to 31 March 2009.

Although the caveats regarding the role of causal theories in the social sciences have already been stated, the timing of the calculation and collecting of the variables concerned still has to be considered. Welman and Kruger (1999:72) state that any variable X may be regarded as a cause of another variable Y if each of the following three conditions is met:

- there must be a relationship (correlation) between variables;
- the cause must precede the effect; and
- any additional variable must be controlled.

If corporate governance was endogenously determined, an assessment of the causal connection between corporate governance and another variable could not be drawn (Abdo and Fisher, 2007). Therefore, because of endogeneity concerns as well as the other caveats regarding causality, the study is explicitly an exercise in correlation. Any inference that is made regarding causality is by definition an assumption. However, the relationship between variables can still be tested and the dependent variables can be calculated and collected after the independent variable and the nature of the relationship can be speculated on. Other variables that could likely influence the study can also be taken into consideration. Consistent with the related literature reviewed, corporate governance is considered the independent variable and the cost of equity as well as the cost of debt, the dependent variables.

According to the efficient market hypothesis the flow of information is unimpeded and immediately reflected in share prices (Malkiel, 2003). However, the intellectual dominance of the efficient market hypothesis had become far less prevalent at the start of the twenty-first century (Malkiel, 2003). If the research project takes into account the efficient market hypothesis, the implication is that if there were a significant lag between the governance release date and the calculation of the cost of equity proxy, other information may have impacted the cost of equity proxy. Therefore, the cost of equity proxy would have to be calculated using data as close after the governance release date as possible. The cost of debt proxy would also have to

be collected after the release date of the governance data to comply with Welman and Kruger's (1999) condition of cause preceding effect.

The G-Score as developed by Abdo and Fisher (2007) was used as measure of corporate governance. The G-Score is based largely on King II principles and therefore applicable to South African listed companies as required by the amended listing requirements of the JSE. The G-Score template is included as Appendix 1.

As identified in the literature, the yield spread is often used as proxy for the cost of debt. "The literature on the determinants of loan spreads is well developed, with the majority of studies using a single equation regression approach" (Goss and Roberts, 2006). However, the availability of this data was a concern. If the debt is not publicly traded it would not be possible to calculate this cost of debt proxy. For instance, regarding the final sixteen companies in the sample, there were only five companies that issued bonds during the respective financial years under review.

As a result, a company's credit rating as obtained from rating agencies Moody's and Fitch were used as a cost of debt proxy. According to Weber (2006), credit ratings are more likely to be impacted by poor corporate governance than issue specific measures. Unlike US/UK listed companies, not all South African listed companies solicit credit ratings (Steenekamp, 2009). No credit rating could be obtained from either Moody's or Fitch for four of the top twenty listed companies. Some of the sample companies were rated by Moody's and the other by Fitch. Moody's and Fitch's rating methodology was compared and converted to a uniform credit rating. Following Anderson, et al., (2004), credit ratings were computed using a conversion process in which an AAA rating was assigned a value of twenty and a D rating assigned a value of one.

The cost of debt proxy would have to be collected after the release date of the governance data i.e. the date the annual report was released. Therefore, a credit rating from one of the said rating agencies performed after the date of the release of the annual report would have to be obtained. Of the sixteen companies in the final sample, four companies did not have a subsequent credit rating after the release date. For those four companies the current rating at the time of the annual

report was used. In those cases the dependent variable will not follow the independent variable. It would have been possible to calculate a G-Score for the four effected companies for a prior period in order that the credit rating does not precede the release date. However, the valid concern was that one or two years ago the market conditions were clearly very different. The level of sophistication of governance reporting could also have been different one or two years ago.

As identified in the review of the related literature, the cost of equity is difficult to measure because it is not directly observable and has therefore subjective characteristics. Easton's (2004) modified PEG ratio as proposed by Botosan and Plumlee (2005) was used as proxy for the cost of equity. The PEG ratio method derives the cost of equity capital using analysts' consensus forecasts of earnings per share for one-year and two-year ahead respectively as well as using the company's share price at the forecast date (Reverte, 2009). Instead of using earnings per share for one-year and two-year ahead respectively, Botosan and Plumlee (2005) use long-run earnings forecasts i.e. four-year and five-year ahead respectively. Their first reason for using long-run earnings forecasts is that when earnings per share for two-year ahead is less than earnings per share for one-year ahead, the model cannot be solved which would in turn limit the sample size. Secondly the authors argue that changes in abnormal earnings beyond the forecast horizon are more likely to be zero when long-run earnings forecasts are employed.

In order to take the efficient market hypothesis into consideration, share prices on the fifth day after the annual report release date were obtained. Share price data and future expected earnings per share were obtained from I-Net Bridge. Earnings forecasts of two- and three-year ahead respectively could be obtained and were subsequently used.

As indicated in the review of the related literature, beta, size (natural log of financial year-end market value of equity) and market-to-book ratio should be used as validation for the cost of equity proxy. Regarding the cost of debt, from the literature, size (natural log of total assets), leverage, return-on-assets, interest cover and a liquidity ratio (the current ratio) were taken into consideration. All the other variables related to the cost of equity and the cost of debt was obtained from McGregorBFA.

3.5 Level of significance

Bless and Kathuria (1993) describes the level of significance as the probability value that determines the boundary between rejecting and not rejecting the null hypothesis. "Statistical hypothesis testing is all a matter of probabilities, and there is always a chance that we could make an either a Type 1 or Type 11 error" (Leedy and Ormrod, 2005: 271). Type 1 error occurs when the null hypothesis is rejected when it should not have been rejected, while Type 11 error occurs when the null hypothesis is not rejected when it should have been rejected (Diamantopoulos and Schlegelmilch, 2000). Type 1 error is seen as much more serious failure than making a Type 11 error (Diamantopoulos and Schlegelmilch, 2000).

In order to minimize the risk of incorrectly rejecting the null hypothesis, the significance level is used to indicate the maximum risk that the researcher is willing to accept (Diamantopoulos and Schlegelmilch, 2000). The less risk the researcher is willing to assume, the lower the level of significance and typical values used are 0.10, 0.05, 0.01 and 0.001 (Diamantopoulos and Schlegelmilch, 2000). Although the rejection area varies in social research, the most frequently chosen level of significance is 0.05 (Bless and Kathuria, 1993). The chosen level of significance for this research project is 0.05.

3.6 Parametric testing

Parametric tests are defined as statistical tests based on the use of parameters such as the mean, the standard deviation, standard error, etc (Bless and Kathuria, 1993). Parametric statistics are based on certain assumptions about the nature of the population (Leedy and Ormrod, 2005). Two of the most common assumptions are (Leedy and Ormrod, 2005: 257):
- The data reflect an interval or ratio scale.
- The data fall in a normal distribution.

Bivariate correlation testing using Pearson's Product Moment Correlation test was performed. The Pearson's Product Moment Correlation is the most widely used measure of association for examining relationships between interval and/or ratio variables (Diamantopoulos and Schlegelmilch, 2000).

The following correlation scales (interpretation rules) were used:

1.) Where the sig. value (probability value) $p <= 0.05$, a statistical significant correlation is indicated.

2.) Pearson correlation co efficient (r) values starts from -1 to +1

3.) If **--** means negative correlation (If one variable increases other variable will decrease)

4.) If **+** means positive relationship. (If one variable increases other variable will also increase)

5.) -- or + indicates direction of relationship between two variables.

6.) Strength relationship:

r = .10 to .29 or   -.10 to -.29   small (moderate) correlation

r = .30 to .49 or   -.30 to -.49   medium correlation

r = .50 to 1.0 or   -.50 to -1.0   large (strong) correlation

3.7 Chapter summary

This chapter of the research project described the particular research process followed by the researcher. Different research paradigms were discussed and a positivistic, quantitative approach to the research project was motivated. The aim of the research project was further investigated through general and specific research questions. In terms of the specific research questions, sub-hypotheses were formulated. The sample and the timing of the collection of the dependent and independent variables were described as well as the proxies being used for the different variables. The level of significance was specified as well as the parametric tests that were used described.

4. Research Results

4.1 Corporate governance findings

The data reveals a mean G-Score of 74.79% for the sixteen companies under review thereby indicating a high measure of compliance and disclosure. The highest recorded mean score per company was 80.10% and the lowest was 61.70%. Figure 4.1 is a histogram of the range of G-Scores obtained. As the histogram reveals, more than half the sample were clustered in a very narrow score band.
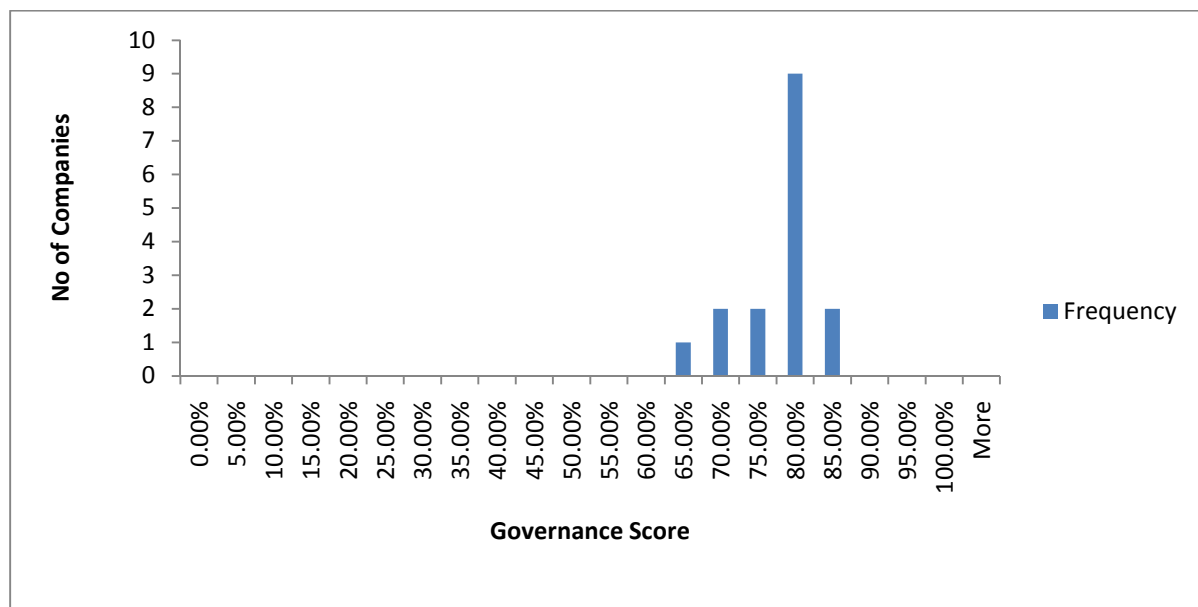
Figure 4.1 Distribution of governance scores

Table 4.1 reveals how the level of reporting differs per category of governance disclosure. Table 4.1 further reveals the best disclosed category across the sample to be remuneration of directors with a mean of 93%, while the lowest scoring category is sustainability with a mean of 50%. An additional finding is that sustainability and code of ethics both have a minimum score of 0%, which indicates instances where no disclosure relating to those categories could be obtained.

Table 4.1 Corporate governance disclosure categories

Governance category	Mean	Min	Max
Board effectiveness	80.94%	55%	90%
Remuneration of directors	93.13%	80%	100%
Accounting and auditing	73.13%	60%	90%
Internal audit	73.44%	50%	75%
Risk management	66.88%	50%	83%
Sustainability	50.25%	0%	100%
Code of ethics	53.13%	0%	100%

4.2 The cost of debt

Credit ratings were computed using a conversion process in which an AAA rating is assigned a value of twenty and a D rating assigned a value of one. Regarding the sample of companies, the highest credit rating was 20 and the lowest 11. The mean rating was 15 and the median credit rating 16. The mean credit rating of 15 corresponds to an A credit rating from Fitch and a corresponding A2 credit rating from Moody's. Figure 4.2 is a histogram of the range of credit ratings obtained.
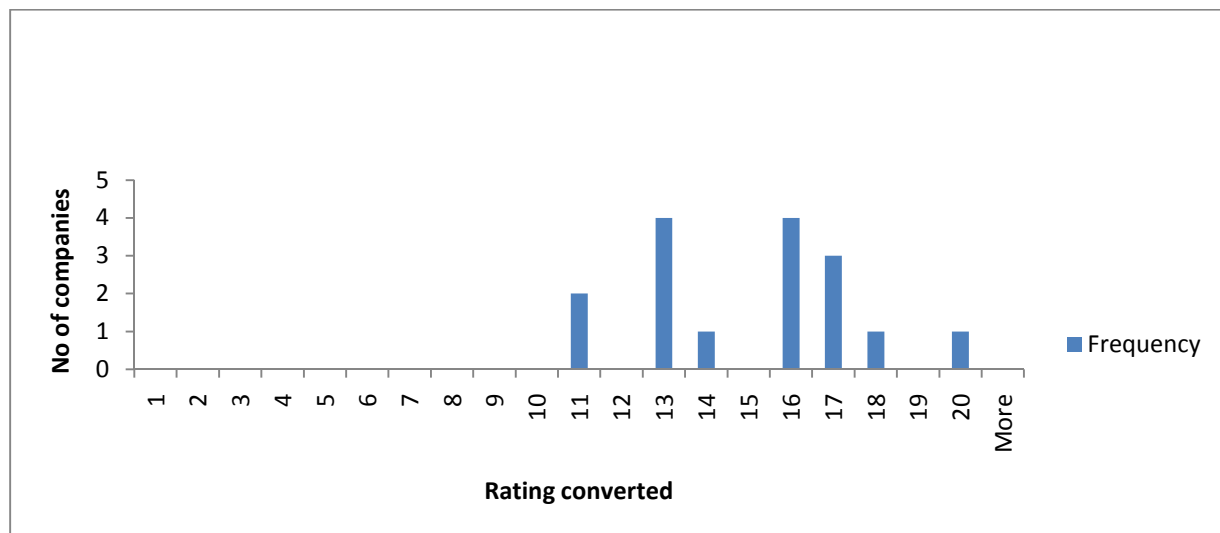

Figure 4.2 Distribution of credit ratings

Variable	Coefficient	p-value (two-tailed)
G-Score	-0.108	0.691
Board effectiveness	0.041	0.879
Remuneration of directors	0.088	0.746
Accounting and auditing	0.019	0.945
Internal audit	-0.513*	0.042
Risk management	-0.051	0.850
Sustainability	-0.313	0.238
Code of ethics	0.404	0.120

*Correlation is significant at the 0.05 level (two-tailed).

The only corporate governance category found to have a statistical significant relationship with the cost of debt proxy was internal audit. The findings revealed that internal audit as corporate governance disclosure category was inversely related to the cost of debt proxy. A negative correlation indicates that if one variable increases, the other variable will decrease. Therefore, if the percentage score obtained for internal audit increases, the variable used for the cost of debt proxy (coded from one to twenty) will decrease, thereby indicating a lower credit rating and thus a higher cost of debt.

4.3 The cost of equity

Regarding the cost of equity an appropriate measure of expected return will be positively related to beta and negatively related to size and market-to-book ratio (Ashbaugh, et al., 2004) (Reverte, 2009). Table 4.3 presents the Pearson correlations between the cost of equity and the control variables while table 4.4

Table 4.3 Correlation results between the cost of equity and control variables

Variable	Coefficient	p-value (two-tailed)
5 year BETA	0.178	0.509
Price/Book value	-0.380	0.146
Nat Log (Size)	-0.167	0.536

Regarding the cost of equity, the research project could not find evidence of a significant positive relation to beta or a significant negative relation to size and market-to-book ratio.

Table 4.4 Correlation results between the cost of equity and the G-Score and corporate governance disclosure categories

Variable	Coefficient	p-value (two-tailed)
G-Score	0.206	0.443
Board effectiveness	0.115	0.671
Remuneration of directors	0.173	0.522
Accounting and auditing	0.366	0.163
Internal audit	-0.173	0.521
Risk management	-0.011	0.969
Sustainability	0.047	0.864
Code of ethics	-0.204	0.448

4.4 The cost of debt and other variables

Bivariate correlation testing using Pearson's Product Moment Correlation test was performed on the cost of debt and other variables.

Table 4.5 Correlation results between the cost of debt and other variables

Variable	Coefficient	p-value (two-tailed)
Current ratio	-0.148	0.585
Debt/Equity	0.682**	0.004
Interest cover	-0.149	0.582
Return on assets	-0.236	0.378
Nat log (total assets)	0.533*	0.034

** Correlation is significant at the 0.01 level (two-tailed).

* Correlation is significant at the 0.05 level (two-tailed).

A statistical significant positive correlation was found between the cost of debt proxy and the proxy used for leverage. The correlation between the variables was strong. A positive correlation indicates that if one variable increases, the other variable will also increase. Therefore, if the variable used to proxy for the cost of debt (coded from one to twenty) increases, the variable used to proxy for leverage will also increase. The findings indicated a higher credit rating for higher leveraged companies.

A statistical significant positive correlation was found between the cost of debt proxy and the proxy used for a company's size. The correlation between the variables was strong. The findings indicated a higher credit rating for a larger company.

4.5 Summary of results obtained

- No statistical significant relationship could be found between the G Score (Corporate Governance) and the cost of equity proxy.
- No statistical significant relationship could be found between the G Score (Corporate Governance) and the cost of debt proxy.
- No statistical significant relationship could be found between any corporate governance category and the cost of equity proxy.
- The only corporate governance category found to have a statistical significant relationship with the cost of debt proxy was internal audit.

- A statistical significant correlation was found between the cost of debt proxy and the leverage proxy. Debt/Equity was used as proxy for leverage.
- A statistical significant correlation was found between the cost of debt proxy and the proxy used for size. The natural log of total assets was used as proxy for size.

4.6   Chapter summary

The chapter reported on the results obtained during the empirical study. General corporate governance findings as well as corporate governance disclosures per governance category were reported. The validity of the cost of equity proxy was reported as well as descriptive statistics provided regarding the cost of debt proxy. The chapter focussed on testing the hypotheses formulated in chapter three. Bivariate correlation testing was also performed on the cost of debt proxy and other relevant variables. The chapter concluded with a summary of the results obtained.

5. Discussions, conclusions and recommendations

5.1 Introduction

The results of the research project indicated with a single exception that there is no evidence of any relationship between corporate governance and the cost of capital in the twenty largest listed companies in South Africa. This is an unexpected result as it would imply that investors do not place any value on the measures that are put in place to ensure that their interests are protected. A number of possible reasons exist that might explain the results obtained. These reasons are discussed in the chapter and range from the chosen proxies employed to the limited ability of cross-sectional studies to detect the severity of agency conflict.

The remainder of the chapter is organised as follows. A general discussion is provided that is applicable to both forms of capital followed by a discussion that relates to each form of capital respectively. Thereafter, corporate governance findings and the additional findings are discussed followed by the conclusions and the recommendations.

5.1.1 General discussion

As indicated in the review of the related literature, the majority of previous studies focussed on one aspect of capital, equity or debt. In a recent working paper that reviewed the empirical literature on corporate governance and the cost of capital, Ramly (2009) found only one prior study that considered a company's overall cost of capital. A company's overall cost of capital is reflected in a company's weighted average cost of capital (WACC). As most listed companies are to some degree leveraged, the full extent of the relationship between corporate governance and the cost of capital can be more accurately tested and captured by considering a company's overall cost of capital (Ramly, 2009). Therefore, in not considering the companies' overall cost of capital, the research project could possibly have not detected the full extent of the investigated relationship adequately.

Consistent with Ramly (2009), the review of the related literature indicated various measures to proxy for the cost of equity and cost of debt respectively. Ramly (2009) stated that there seems to be a lack of consensus on a well-accepted method in estimating both the cost of equity and the

cost of debt. The author concludes that the debate on the most appropriate measures of the cost of capital continues. The proxies chosen for the research project could therefore have influenced the findings obtained. Further concerns regarding the chosen proxies are discussed in section 5.1.1 and 5.1.2 of the chapter.

Chi and Lee (2007) investigated the inability of cross-sectional empirical tests to confirm the prediction that corporate governance plays a crucial role in limiting agency conflicts and enhancing firm value. The authors contend that agency theory suggests that corporate governance matters more among companies with greater potential agency costs. Their view is based on the work of Jensen (1986) that argued that conflicts of interest between managers and shareholders are especially severe when a company generates substantial free cash flow. Chi and Lee (2007) emphasised the "especially severe" in the previous sentence as they argued that it suggests that the value of corporate governance may increase in a non-linear fashion as the perception of conflict of interest increases. The implication is that a typical test design forfeits substantial statistical power by assuming that the corporate governance effect is the same for all companies all the time.

According to Chi and Lee (2007) when large-sample cross sectional analysis is used and no significant relationship between firm value and corporate governance attributes are detected, one explanation is that corporate governance does not matter and the other is that companies choose their corporate governance mechanisms optimally. The authors cited Demsetz (1983) that noted that there are many governance mechanisms available that serve complimentary functions and therefore cross-sectional studies that model individual corporate governance mechanisms as independent explanatory variables for firm value are not likely to detect a relation.

The findings of Chi and Lee (2007) revealed that a company's value is an increasing function of improved corporate governance quality among companies with high cash flow. In contrast, when there is less likelihood of agency conflict (companies with low cash flow), the corporate governance benefits are lower. "Therefore, disregarding the variation in agency conflict severity could impair test power and the interpretation of cross-sectional tests of the relation between governance and firm value" (Chi and Lee, 2007: 26).

The research project used a cross-sectional design and agency conflict severity was not taken in consideration. This could have therefore also have accounted for the results obtained. In turn if the relationship between corporate governance and the cost of capital is nonlinear, the Pearson correlation coefficient would not detect such a relationship, particularly since the spread of G Scores was as narrow as indicated in figure 4.1. A nonlinear relationship could imply that corporate governance is not related to the cost of capital except in such instances where there is a fundamental corporate governance weakness.

The theoretical model to clarify the relations between corporate governance, capital structure and firm value as presented in figure 1.1 needs to be further refined. To make the constructs operational would require taking into account the multidimensional nature of these constructs (La Rocca, 2007). The variation in agency conflict severity is indicative of the multidimensional nature of corporate governance. La Rocca (2007) further emphasised that it must be considered that there may be distortions in the signs and entities of the connection between the variables due to the presence of co-variation even when there is no cause, and reciprocal cause.

It is widely accepted that good corporate governance will result in a lower cost of capital (Donker and Zahir, 2008). Measures that aim to protect the interests of shareholders or investors must surely be of value to investors. The research project indicated that empirical corporate governance and finance research is fraught with methodological concerns that have to be accounted for. These methodological concerns along with the multidimensional nature of the constructs involved could certainly have contributed to Donker and Zahir's (2008) contention that empirical studies on corporate governance so far do not unequivocally support that good corporate governance will result in a lower cost of capital.

Although the findings from the research project could not establish a link between corporate governance and the value of a company, the absence of an effective corporate governance system as was the case with some corporate scandals provide ample evidence that poor corporate governance will result in a destruction of value and are thus financially material. This evidence as well as that empirical research still has to refine its methods should serve as encouragement not to discard corporate governance research from a value perspective.

Corporate governance should also be advocated for reasons such as fairness, equity and the appearance of propriety (Abdo and Fisher, 2007). The IOD (2009) cited a survey from KPMG and the United Nations Environmental Programme that indicated that the first priority of stakeholders of a company is the quality of the product or service offered, while the second priority is the trust and confidence stakeholders have in a company. That could imply that corporate governance can also be beneficial from a values perspective and that not all a company does should be a matter of value. In fact, the South African governance model does follow values-based principles. Without a values perspective of corporate governance it could be rightfully asked whether further corporate scandals can be avoided even if all corporate governance mechanisms is in place.

5.1.2 Corporate governance and the cost of equity capital

The findings revealed no statistical significant relationship between the corporate governance and the cost of equity capital in the twenty largest listed companies in South Africa. This is contrary to the literature that revealed a growing link between corporate governance and the cost of equity capital (Abdo and Fisher, 2007; Ashbaugh, et al., 2004; Chen, et al., 2004; Drobetz, et al, 2004; Reverte, 2009). According to Abdo and Fisher (2007), although the literature linking corporate governance and company performance is on the increase, the diversity of results is also growing. According to Abdo and Fisher (2007) these differences can be partly explained by the use of differing methodologies, cost of equity estimates and different governance standards around the globe.

Contrary to the findings of Gompers, et al., (2003), Bauer, et al., (2004) found a negative relationship between corporate governance and firm performance. The Gompers, et al., (2003) study was conducted in the US market while the Bauer, et al., (2004) study investigated the European case. In addition, Bauer, et al., (2004) found no statistical significant relationship between corporate governance and firm value in the UK, while finding a statistical significant relationship in the countries within the European Monetary Union. According to Bauer, et al., (2004) a reason for the previous finding could be that countries within the European Monetary Union traditionally tend to have poorer governance standards. The authors contend that the finding is corroborated by prior empirical research which also demonstrated that the lower the

governance standards, the stronger the relationship between corporate governance and firm value. The findings of the research project was supportive of this contention as South African listed companies through the King codes of governance have good governance standards.

Johnson, Moorman & Sorescu (2007) re-examined the findings of Gompers, et al., (2003) that provided evidence of long-term abnormal returns on portfolios of companies sorted on governance characteristics. The re-examination hypothesised that the findings of Gompers, et al., (2003) might have been affected by a bias in the construction of the good-governance and poor-governance samples (Portney, 2008). Johnson, et al., (2007) demonstrated that the industry distributions of the good-governance sample and the poor-governance sample differ statistically and significantly from each other, and from the population of companies. A better test would be one in which the possible industry effects were controlled for statistically (Portney, 2008). After correcting for these, Johnson, et al., (2007) found statistically zero abnormal returns for a portfolio of companies sorted on Gompers, et al., (2003) governance index. The significant results of Gompers, et al., (2003) are artefacts of either asset pricing model misspecification or unexpected industry performance (Johnson, et al., 2007).

As a result, industry instead of governance could actually account for the variation in returns across governance portfolios (Johnson, et al., 2007). Although the research project's finding regarding the relationship between corporate governance and the cost of equity is consistent with the finding of Johnson, et al., (2007), the current study did not take into account any industry specific effects. Neither did the research project construct governance portfolios consisting of a good-governance sample or a poor-governance sample. The sample of companies selected could have been too similar in terms of industry and could account for the results obtained. For instance, included in the final sample of sixteen companies there were four banks and two life insurance companies.

Bhagat and Bolton (2008) could not confirm the findings of Gompers, et al., (2003) that corporate governance is strongly correlated with future stock market performance. The authors point out that the results of Gompers, et al., (2003) raised serious concerns about the efficient

market hypothesis as the good-governance and poor-governance samples could have been constructed with publicly available data.

Paulson (2008), in a review of an issue of the Journal of Corporate Finance, noted that the finding of Bhagat and Bolton (2008) is consistent with the efficient market hypothesis. Paulson (2008) further cites Renneboog, et al., (2008) that confirmed that socially responsible funds that included corporate governance criteria in their selections of shares do not earn risk-adjusted excess returns, therefore again lending support of the efficient market hypothesis. The assertion that the market does not value good corporate governance should be supplemented with the conclusion that the market is efficient in utilising information effectively until proven unequivocally otherwise. Market competition will further encourage companies to evolve towards better governance structures (Chi and Lee, 2007).

Malkiel (2003) concluded that some market participants are demonstrably less rational and the market cannot be perfectly efficient for otherwise there would be no incentive for professionals to uncover the information that is swiftly reflected in share prices. Furthermore, with technological advances and better empirical techniques, additional apparent departures from efficiency will be documented. However, the end result will not be an abandonment of the belief by many in the profession that the market is extremely efficient (Malkiel, 2003).

As previously stated the cost of equity is an unobservable measure and has to be estimated (Reverte, 2009). An appropriate measure of expected return will be positively related to beta and negatively related to size and market-to-book ratio (Ashbaugh, et al., 2004). The cost of equity proxy used in the research project, did not reveal any significant positive relation with beta or a significant negative relation to size or market-to-book ratio. As previous studies used large samples, the small sample used in the research project could have contributed that no significant relationship was obtained between the cost of equity proxy and the control variables.

According to Kryzanowski and Rahman (2009) there are two fundamental sources of bias in implied cost of equity estimations. These are analysts' forecasts that are pervasively optimistic and the second being the bias in earnings forecasts for different time horizons. As indicated in

the research methodology chapter, earnings forecasts of two-and three-year ahead respectively were used to calculate the PEG ratio. The PEG ratio is based on the Ohlson and Juettner-Nauroth model. Kryzanowski and Rahman (2009) warned that the common practice in empirical research of using a proxy for the earnings forecast horizon beyond two years in the Ohlson and Juettner-Nauroth model is potentially biased. "However, adjusting the coefficients of the quadratic equation from the OJ model to account for a longer forecast horizon may be invalid and potentially create systematic bias" (Kryzanowski and Rahman, 2009: 173).

Both forms of bias are thus evident in the research project's cost of equity calculation and could account for the finding of no relation between the corporate governance and the cost of equity capital. As the equity valuation literature evolves, better estimates of the implied cost of equity could become available. Kryzanowski and Rahman (2009) stated that future research should further address these two fundamental sources of bias.

5.1.3 Corporate governance and the cost of debt capital

Regarding corporate governance and the cost of debt capital, the findings revealed no statistical significant relationship between corporate governance and the cost of debt capital in the twenty largest listed companies in South Africa. The findings is contrary to the findings of Ashbaugh-Skaife, et al., (2006) and Funchal, et al., (2008) that indicated that better corporate governance results in a lower cost of debt capital.

Credit ratings were used to proxy for the cost of debt. According to (Shivdasani and Zenner, 2005) ratings are not the only driver of the cost of debt. The rating process is often asymmetric in that downgrades occur rapidly following poor financial performance whereas upgrades rarely follow improvements in performance with the same speed (Shivdasani and Zenner, 2005). For that reason companies often target a higher credit rating as to have a precautionary ratings cushion (Shivdasani and Zenner, 2005). Besides whether credit ratings truly reflect a company's cost of debt, the asymmetrical processes as well as the precautionary ratings cushions cast doubt on whether the credit rating obtained at a certain point in time really reflect the cost of debt at that particular point in time.

In understanding the relationship between corporate governance and credit quality, a particular rating agency noted that parallel to a low upside return but a potentially high downside risk inherent in bonds; corporate governance tends to have an asymmetric impact on credit quality (FitchRatings, 2007). One would expect the top twenty listed companies not to have fundamental corporate governance weaknesses and indeed the corporate governance distribution scores reflected in figure 4.1 confirmed that. The implication that could be drawn is that as with financial performance, good corporate governance practices are not reflected immediately in a company's credit rating. The findings of the research project would support such a contention.

Credit rating agencies have come under increasing criticism as a result of the Enron debacle and the recent sub-prime crisis (Guru, 2008). Regarding the sub-prime crisis various regulatory issues surrounding the workings of credit rating agencies have been raised by institutions such as the International Organisation of Securities Commission (IOSCO) and the United States Securities and Exchange Commission (SEC) (Guru, 2008). An important recommendation laid down by IOSCA in 2008 was that credit rating agencies should establish an independent function that is responsible for periodically reviewing the methodologies and models as well as any changes to the methodologies and models used in the rating process (Guru, 2008). Whether the respective rating agencies have already established such independent functions is unknown. It can be argued that trends in corporate governance are constantly evolving as to take into account the new interface between business and society. It is thus imperative that credit rating agencies constantly assess the methodologies and models they use in evaluating corporate governance and also constantly review whether enough emphasis is placed on corporate governance in the rating process.

Although the review of the related literature indicated that credit ratings have previously been used as proxy for the cost of debt, some serious concerns have been identified regarding the use of credit ratings as proxy. In retrospect, in the absence of an active bond market that is needed in order to calculate yield spreads, a better proxy for the cost of debt might have been to calculate the cost of debt directly from the financial statements of the companies.

Additional bivariate correlation testing was performed between each different corporate governance category and the cost of debt capital. The only corporate governance category found to have a statistical significant relationship with the cost of debt proxy was internal audit. The findings revealed that a higher percentage score obtained for internal audit correlated with a higher cost of debt. Considering the methodological weaknesses previously discussed, there has to be some concern that this is a Type 1 statistical error. Assuming that this result is not a methodological artefact, the following paragraphs discuss this finding.

According to Adams (1994) agency theory contends that internal auditing helps to establish efficient contracting between principals and agents. While principals incur monitoring expenses for example subjecting the financial statements to external audit scrutiny, agents incur bonding costs of which the internal audit function is an example (Adams, 1994). The purpose of the bonding cost being to signal to the principal that the agent is acting responsibly. Agency theory assumes that principals and agents act rationally and will use the contracting process to maximise their own wealth (Adams, 1994).

By aligning the interests of shareholders with management, through the use of share options for example, shareholders will try to ensure that management does not expropriate the company for their own benefit. It could be argued that this shared interest might affect the internal auditing function independence. Adams (1994) states the agency theory predicts that in order to ensure higher share prices, companies may wish to signal to capital markets that above average financial performance have been achieved and that adequate internal controls are in place.

According to Anderson, et al., (2004) bondholders potentially exhibit great concern over factors influencing the reliability and validity of the financial accounting process. The findings of Anderson, et al., (2004) revealed a negative relation between audit committee frequency meetings and the cost of debt implying bondholder concerns with directors actively monitoring the financial accounting process. Results of the current research project would suggest that bondholders consider the internal audit function of importance.

Using a sample of companies disclosing internal control weaknesses, Elbannan (2008) found that internal control quality is negatively related to firm credit ratings. His findings indicated that companies disclosing internal control weaknesses are more likely to have lower credit ratings. One rating agency's primary focus in evaluating corporate governance is on the isolated instances of outlier corporate governance that may have an impact of the credit rating assigned, especially those on the downside (FitchRatings, 2007). Therefore, the internal control weaknesses may have already been reflected in the credit ratings obtained by Elbannan (2008).

5.1.4 Corporate governance findings

Abdo and Fisher (2007) note that while the G-Score is a useful measure of corporate governance disclosure, it only assesses the minimum requirements companies should disclose. Certain corporate governance characteristics are subjective and therefore difficult to measure. A mindless 'tick-the-box' approach to governance will not result in good governance and the researcher has to be careful of not falling in the same trap. An argument against the 'comply or else' framework such as the Sarbanes-Oxley Act is that a 'one size fits all' approach cannot possibly be suitable all companies, as the scale of their business varies so much (IOD, 2009). The scope to improve on the current corporate governance rating methodologies is therefore considerable.

A high mean score of nearly 75% was obtained for the sample companies' G-Score, thereby indicating a high measure of compliance and disclosure. However, the range between the best disclosed governance category, remuneration of directors, and the lowest scoring governance category, sustainability, was 43%. The corporate governance disclosure categories that had average scores were sustainability and code of ethics. There were instances regarding these two categories where no disclosure was made or no evidence could be obtained. The level of disclosure regarding sustainability is a concern as the King 11 report explicitly required companies to implement the practice of sustainability reporting as a core aspect of corporate governance (IOD, 2009).

The King 111 report was publicly launched on 1 September 2009 and will be effective from 1 March 2010 (IOD, 2009). The King 111 report also highlights the need for sustainability

reporting, but whereas previously it was done in addition to financial reporting it should now be integrated with financial reporting (IOD, 2009). According to the King 111 report the current incremental changes towards sustainability are not sufficient, what has become imperative is a fundamental shift in the way companies and directors act and organise themselves (IOD, 2009).

The disclosure of adherence to the companies' code of ethics is of further concern. How a company evaluates its ethics forms part of the integrated reporting advocated by the King 111 report (IOD, 2009). Integrated reports should provide stakeholders with forward-looking information and improves the trust and confidence which stakeholders have in a company (IOD, 2009). The King 111 report will require a company's board of directors to ensure that a company's ethics are managed effectively (IOD, 2009).

When applying the King 111 report from 2010 it is important take cognisance of the equal importance of each principle contained in the code and that together the principles form a holistic approach to corporate governance (IOD, 2009). "Consequently, 'substantial' application of this Code and the Report does not achieve compliance" (IOD, 2009: 16).

5.1.5 Additional findings

It is worth emphasising that corporate governance is just one of many inputs into the rating process (FitchRatings, 2007). Bivariate correlation testing was performed between the cost of debt and other variables identified in the related literature.

The findings indicated a higher credit rating for higher leveraged companies contrary to what has been demonstrated theoretically and empirically (Goss and Roberts, 2006). The higher debt usage, the greater the risk associated with a higher cost of debt. However, leverage could have already been captured in the respective companies' credit ratings. As explained in the following paragraph, size is an even more important driver than leverage.

The findings indicated a higher credit rating for larger companies. Larger companies are better able to withstand negative shocks to their cash flow and are less likely to default (Goss and Roberts, 2006). Larger companies further have reputational effects that increase with size and

therefore are viewed less risky by banks (Goss and Roberts, 2006). According to Shivdasani and Zenner (2005) evidence suggests that in most industries, company size is an even more important driver of credit ratings than leverage. The implication is that because of the importance of size in the rating process, an investment-grade credit rating may simply be out of reach for smaller companies in the short term (Shivdasani and Zenner, 2005).

5.2 Conclusions

All sixteen companies in the sample obtained G-Scores that indicated there was no apparent risk that an effective corporate governance system was not functioning properly. If the value of corporate governance increases in a non-linear manner as the perception of agency conflict increases and with the absence of any fundamental corporate governance weaknesses in the sample, the benefits of corporate governance from a value perspective were less likely to be detected in a cross-sectional study as evident from the findings obtained.

Although the value enhancing effects of corporate governance could not be demonstrated, the research project motivated why these efforts should not be discontinued in the future. A changing business and society interface requires a stakeholder approach to governance and consequently corporate governance should also be viewed from a values perspective.

There is a limited but expanding body of empirical studies on the effect of corporate governance as a tool for value enhancement. In addition most previous empirical studies were of US or European origin and only a limited number from Africa. The research project contributed to the expanding body of knowledge in the field and provided a South African perspective.

Since the release of the first King report, South Africa has been at the forefront of corporate governance internationally. This is evident in that King 1, unlike its counterparts in other countries, already went beyond only the financial and regulatory aspects by advocating principles which link business with society and stakeholders (CIS, 2008). According to the King 111 report South African companies are regarded by foreign institutional investors as being among the best governed in the world's emerging economies (IOD, 2009). It can be concluded that academic interest in the field of corporate governance will increase in South Africa. With the

financial crisis being presented as a crisis of corporate governance, further research and interest in the topic is inevitable.

5.3 Recommendations

It is recommended that listed companies issue integrated sustainability reports. By issuing an integrated sustainability report a company can enhance and legitimise the credibility of its operations, increase business opportunities; improve its risk management practices and improve the trust and confidence that stakeholders have in the company (IOD, 2009). This recommendation is proposed from a values perspective and as such corporate governance can be used to demonstrate a company's values.

In accordance with the King 111 report, it is recommended that companies' ethics performance be assessed, monitored, reported and disclosed (IOD, 2009). Unless there is ethical conduct, regulations and codes of practice will not work (CIS, 2008). Perhaps this could also be put that unless there are values, any corporate governance efforts to produce value will fail.

The King 111 report operates on an 'apply or explain' basis (IOD, 2009). "...directors are required to 'apply' the code or 'explain' the reasons for not doing so" (IOD, 2009: 8). A corporate governance rating methodology cannot only be an exercise in compliance, as the validity of such a methodology is questionable. The development of an appropriate corporate governance rating methodology is recommended as future research endeavour. This would be a challenging undertaking as the finance model of the firm in which the central problem is how to construct rules and incentives to align the behaviour of managers with the interests of owners i.e. agency theory, is still the dominant paradigm in corporate governance. The inclusive approach to governance state that the board should take into account the legitimate expectations of the company's stakeholders (IOD, 2009). Additionally the multidimensional nature of corporate governance would have to be taken into account.

An issue that plagues virtually all empirical studies in the field is endogeneity (Drobetz, et al., 2004). If corporate governance was endogenously determined, an assessment of the causal connection between corporate governance and another variable could not be drawn (Abdo and

Fisher, 2007). Although the research project did not intend to make any causal connections, the review of the related literature did provide caveats that future researchers need to take heed of. Following Donker and Zahir (2008) it is recommended that instead of a single period or cross-sectional analysis, panel data analyses should be used in empirical corporate governance research to measure the influence of changes in corporate governance on firm value.

Ashbaugh-Skaife, et al.,(2006) used governance variables to proxy not only for the agency conflicts between management and external stakeholders, but also for potential conflicts between bondholders and shareholders that can result in wealth transfer effects. Further research could be conducted to assess which governance mechanisms that benefit shareholders may do so at the expense of bondholders.

Currently, there exists very limited empirical evidence on the use of WACC to proxy for firm value in relation to the value creation possibilities of corporate governance (Ramly, 2009). Consistent with Ramly (2009), it is recommended that future empirical research investigate the link between corporate governance and value through the use of WACC as proxy for the cost of capital.

Finally, it is recommended that the global financial crisis be used as an event study for future research. As credit is the lifeblood of the form of capitalism that we practice, the ability to access credit is critical. Would corporate governance differentiators enhance a company's ability to access credit?

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Appendix 1

Corporate Governance Rating Analysis		Number Industry Company

1	Board Effectiveness	
1.1	Board has codified and published formal mandate of roles, responsibilities & powers	
1.2	Board has codified and published code of conduct that address conflicts of interest	
1.3	Board identifies key risk areas ad key performance indicators in the annual report	
1.4	Capacity and description of directors disclosed in annual report	
1.5	Board is comprised of a majority of non-executive directors	
1.6	Different company CEO and chairman of board and duties/roles are segregated	
1.7	Formal orientation programme for incoming directors and evidence on ongoing knowledge and skills development	
1.8	Composition of board committees and sub-committees disclosed in annual report	
1.9	Regular board meetings and attendance disclosed in annual report	
1.10	Disclosure of company secretary in annual report with description of duties/roles	
2	Remuneration	
2.1	Existence of remuneration committee	
2.2	Majority members are non executive	
2.3	Remuneration philosophy codified and disclosed in annual report	
2.4	Balance between guaranteed salary and performance element (share options)	
2.5	Full disclosure of individual director remuneration including all benefits	
3	Accounting & Auditing	
3.1	Audit committee have 2 or more non executive directors	
3.2	Audit committee chairman is non executive and not chairman of the board	
3.3	Mandate of audit committee disclosed in annual report	
3.4	Do external auditors perform any non-audit related services	
3.5	Evidence of consultation between external and internal audit in the annual report	
4	Internal Audit	
4.1	Internal audit function exists with a formal charter and reports directly to the Board	
4.2	Description of work performed, results of reports and general mandate disclosed in annual report	
5	Risk Management	
5.1	A risk management strategy and framework and is it disclosed in the annual report	
5.2	Annual report discloses an ongoing process for identifying, evaluating and managing significant risks faced by company	
5.3	Company can continue business in the event of a disastrous incident. Documented and disclosed disaster recovery plan	
6	Sustainability Attributes	
6.1	Commitment to social, environmental and safety responsibilities documented and disclosed in the annual report	
6.2	Description of effort to reducing workplace accidents, fatalities, and occupational health and safety incidents	
6.3	Company measures and discloses investment in human capital	
6.4	Company discloses procurement practices relating to Black Economic Empowerment	
7	Code of Ethics	
7.1	Disclosure of adherence to the company's code of ethics	

TOTAL	

Key:

Tier	Description	Score
0	Attribute does not exist or no evidence obtained	-
1	Attribute does exist or is disclosed in Annual Report	1
2	Evidence of implementation and monitoring of practices	2