



The extent to which CEO risk appetite influences company performance

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ABSTRACT

The crucial decisions that impact the performance of an organisation are usually taken by the Chief Executive Officer (CEO). However, little is known about the impact that a CEO's risk appetite has on the decision making processes and its ultimate impact on company performance. A greater understanding of the relationship between CEO risk appetite and organisational performance will facilitate the improvement of strategy formulation for the purpose of managing risk appetite at an executive level.

A qualitative exploration into the factors that have been acknowledged as contributory aspects in the development of executive risk appetites highlighted the aspects which had the greatest association to the formation of CEO risk appetite. These aspects were utilised in the formation of an interview schedule that evaluated the perceptions of seven CEOs regarding their risk appetite preferences.

Using the findings of the CEO interviews, a model was formulated to quantify CEO risk appetite and test its relationship with company performance, which had been calculated via a quantitative analysis of company financial records.

The findings of the analysis into the relationship between CEO risk appetite and company performance indicated a positive linear relationship between the two variables. The research findings regarding the factors contributing to CEO risk appetite also proved consistent with the majority of the literature on the subject.

The implication of the findings for South African organisations will be an improved understanding of the relationship between CEO risk appetite and organisational performance and the ability to develop strategy around managing this relationship.

DECLARATION

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

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CHAPTER ONE: INTRODUCTION TO THE RESEARCH PROBLEM

1.1 Introduction

The Institute of International Finance Risk defines risk appetite as 'the amount and type of risk that a company is able and willing to accept in pursuit of its business objectives.' Govindarajan (2011) offers a similar definition, stating 'risk appetite is the aggregated account of the board's willingness (to allow management) to take risks in the pursuit of strategic objectives' (p. 6).

These definitions view the risk appetite of an organisation in a collective sense and appear to overlook the possibility that those acting within the organisation have their own risk appetites which may differ from that of the collective. However, of those individuals within the organisation, few, if any, are able to exert their authority on an organisation in order to materially impact the company's financial performance.

Adams, Almeida and Ferreira (2005), argue that 'executives can only impact firm outcomes if they have influence over crucial decisions' (p. 1403), and that the power of a Chief Executive Officer (CEO) will determine the influence that such an individual has over company performance (Adams, Almeida & Ferreira, 2005). This assertion can be extended whereby any CEO with suitable power could be in a position to impact firm outcomes by exercising their influence over the crucial decisions taken within the organisation.

By holding a position that allows for the exercising of influence regarding crucial decisions, it is conceivable that a CEO with adequate authority and opportunity

would not only be able to impact firm outcomes but also be in a position to impact a firm's financial performance. Thus, it is conceivable that a CEO's personal risk appetite could determine the extent to which such CEO impacts a company's outcomes and financial performance.

1.2 Research objectives

The objective of the research is to evaluate the relationship between a CEO's risk appetite and the performance of the company for which such CEO is responsible. Almajali (2012, pp. 272-273), outlined the following factors as contributory in determining company performance:

- Leverage,
- Liquidity,
- Company Size,
- Company Age,
- Management Competence.

The intention of this research is to determine whether CEO risk appetite should also be considered in addition to the numerous other factors that have been identified as affecting company performance. Also, should a relationship between CEO risk appetite and company performance be identified, the nature and extent of this relationship would also be evaluated.

The Oxford English Dictionary defines risk appetite as 'the propensity for one to engage in activities of an uncertain outcome'. It can be argued that most business activities have uncertain outcomes by nature; however, most business activities can be predicted to a degree of certainty either based on past experience or industry norms. Thus, having a high risk appetite would involve pursuing activities where the outcome is not only uncertain, but also cannot be predicted to any

degree of certainty. For the purposes of this research, the risk appetite of a company CEO will be evaluated according to this definition.

Malikova and Brabec (2011, pp. 151-152) identify the following financial ratios as the key ratios per the four main ratio categories (i.e.: profitability, activity, liquidity and debt ratios):

- Return on capital employed,
- Asset turnover ratio,
- Acid test ratio / Liquidity ratio, and
- Debt ratio / Solvency ratio.

The research will evaluate company performance by focussing on profitability and liquidity ratios, as these better reflect short term trends (Graham & Winfield, 2010) which are more attributable to the incumbent CEO. The objective of the research is to determine whether decisions made by the CEO are presently impacting company performance, and is less focussed on identifying the present impact of historical behaviour, which would be more apparent when using debt and activity ratios.

The primary purpose of this research is to clarify the relationship (if any) that CEO risk appetite and company performance share, thus contributing towards any research being conducted in this field which would aim to identify the pertinent variables impacting company performance.

1.3 Research motivation

By evaluating the impact of CEO risk appetite on company performance, and developing a stronger, more robust appreciation of this relationship, one could promote the understanding of this dynamic. There is also the potential for improved

performance by companies in South Africa as a result of CEOs exercising more considered risk appetites.

Variability in company performance has been evaluated using a variety of criteria, and the performance of South African companies have been identified as the sample set for determining what the impact of CEO risk appetite on company performance might be. The researcher has found limited evidence of the relationship between CEO risk appetite and company performance in previous literature.

This research aims to highlight the impact that CEO risk appetites have on the financial performance of their respective companies. In addition, any findings will be useful to stakeholders of organisations (including shareholders, government, clients and creditors) when determining the impact that CEOs have on company performance, and thus assisting them to manage their risk in this regard.

1.4 Research scope

The research is set out to establish whether there is a relationship between the risk appetites of CEOs and the financial performance of their respective companies. In order to achieve this, companies that had suitably influential CEOs needed to be selected. Once the appropriate companies were identified, the respective CEOs would be interviewed to acquire an understanding of their personal risk appetites and the financial performance of the respective organisations.

The study was deliberately limited to organisations that the researcher would be able to gain access to and would be able to acquire the relevant financial information required for the analysis. Also, it should be noted that only the risk

appetites of the company CEO will be considered, irrespective of the board composition or the presence of other executives.

The justification for using only CEO risk appetite as a measurement criterion allows for a consistent approach where irregular company structures exist and where other key executives are more difficult to identify. Also, this approach will reveal more about the ability of an individual's preferences to impact the performance of an entire organisation, thus developing a greater appreciation of this topic.

The research will be looking specifically at the impact caused to the risk appetite of a CEO by the following factors:

- The relative strength of a company's board of directors,
- Performance based incentives and flexible compensation,
- Biographical characteristics of the CEO, specifically age, and
- Environmental factors, including the economic recession.

This purpose of this chapter was to develop the context for the research and to outline the objectives of the research. This chapter has also identified the requirement for this specific research project.

The literature review, which is presented in Chapter Two, constructs the connection between the CEO risk appetite and the resultant performance of the respective company.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The introductory chapter provided a brief background to the research problem. In this chapter, the constructs of risk appetite are investigated in greater detail through the examination of relevant literature.

This chapter includes literature that addresses the two key components of the research, i.e., the ability of the CEO to exercise influence within the organisation and the attributes that influence the risk appetite of an executive or CEO.

This chapter begins with literature pertaining to the ability of individual to exert influence within an organisation, followed by an evaluation of the role that governance has in managing risk appetite. Thereafter, the impact of market factors on risk appetite are considered through the evaluation literature, focussing on the environmental impact on risk appetite and the effect that company volatility has on risk appetite.

The subsequent portion of the literature review is dedicated to the internal and personal characteristics that develop a person's risk appetite, and whether any commonalities exist amongst social groups. In conclusion, the financial factors that stimulate the risk appetite of a CEO are evaluated in the form of performance based compensation and ownership within the organisation.

2.2 CEOs ability to exert influence

Adams et al. (2005), argue that 'executives can only impact firm outcomes if they have influence over crucial decisions' (p. 1403) and that the power of a CEO will determine the influence that such an individual has over company performance. This ability of a CEO to influence, and even monopolise, the decision making process was further emphasised by Adams et al. (2005) by stating that a CEO with significant power will not rely on the opinions of other executives to make decisions (Adams et al., 2005).

An opposing viewpoint was raised by Finkelstein (1992), where it was stated that 'Boards of directors, as representatives of a firm's shareholders, also can create uncertainty for top management teams. Although most boards have relatively little influence, those with significant outside shareholders have the power to limit managerial discretion' (p. 508). Finkelstein (1992) added that 'the ability of top managers to affect firm strategy depends to a great extent on whether they have the requisite power to be influential' (p. 531).

Finkelstein (1992) also concluded that by only assessing the CEO as an affecter of strategy (instead of assessing the entire management team), an assumption is being made as to the spread of power at the top of the organisation, which reinforces the viewpoint that the CEO would not necessarily be in a position to monopolise decision making abilities (Finkelstein, 1992).

Finkelstein and Hambrick (1996) also argue that because of the ambiguity and complexity that characterise the tasks of top managers, managerial biases, egos, and experiences will greatly affect company behaviour, which indicates that should an executive be in a position to make decisions, such decisions are likely to have a significant impact on the organisation (Finkelstein & Hambrick, 1996).

The research by Chatterjee and Hambrick (2007) acknowledges the most common viewpoints regarding the ability of an individual to exert influence within an organisation; (1) that in certain situations, managers can be viewed as having little opportunity to exert influence or positively alter organisational trajectories; and (2) that in other situations, top executives affect organisational outcomes, but not at the same rate at which the market is changing (Chatterjee & Hambrick, 2007).

Chatterjee and Hambrick (2007) do, however, propose a third alternative whereby it is recognised that in certain situations 'some managers do innovate, take bold and radical actions, and engage in major strategic changes' (p. 377). As such, it can be deduced that the ability of a CEO to exert their influence on an organisation is situational and will be dependent on the characteristics of the organisation.

Based on the literature relating to the ability of a CEO to exert sufficient influence to be able to modify company performance, there appears to be strong evidence supporting the claim that a forthright CEO would be able to sufficiently exert their influence to impact company performance.

2.3 Impact of governance on the risk appetite of a CEO

The research done by Core, Holthausen and Larcker (1999), purports that firms with weaker governance, resulting in greater CEO power, have poorer stock performance (although stock performance is not the same as actual financial performance, the two are generally positively correlated and thus applicable for this purpose) (Core, Holthausen & Larcker, 1999). This assertion is complemented by the findings of Adams et al. (2005) who deduced that those firms whose CEOs have greater power are more likely to experience variability in performance due to key decisions being made by an individual (the CEO) instead of a group (the board of directors or executives in an organisation).

An opposing viewpoint was raised by Pathan (2009), who concluded that companies with strong boards (that is, mainly independent directors) would be positively related to risk taking in an organisation (that is, be more risk taking) due to their limited liability (Pathan, 2009). This argument makes two implications, firstly, that decision making by a group can still result in volatile performance, and secondly, that the dependence of a CEO on the organisation can supersede the risk of single person decision making. Therefore, dependence on an organisation can be viewed as a mitigating factor when assessing CEO risk aversion.

A different finding was cited by De Andres and Vallelado (2008) who claimed that the size of the decision making panel did not share a linear relationship to performance. De Andres and Vallelado (2008) stated that, 'We find an inverted U-shaped relation between board size and bank performance. Thus, the inclusion of more directors should benefit the monitoring and advisory functions, improve governance, and raise returns. However, there is a limit beyond which the coordination, control, and decision-making problems outweigh the benefits.' (p. 2578).

De Andres and Vallelado (2008) also concluded that it was not advisable to hire significantly more independent directors to fulfil the function of monitoring the executive directors since boards that are excessively weighted with independent directors struggle to offset the drag this creates on improved performance.

De Andres and Vallelado (2008) did, however, acknowledge that the board is crucial for the purpose of monitoring manager's behaviour and to perform an advisory role with regard to strategy formulation and implementation. They also added that the introduction of independent directors to the board will have the impact of improving the performance of an organisation until the board reaches a critical mass at which point the U-shaped relationship would apply (De Andres & Vallelado, 2008).

The findings of the literature on the impact of governance on the risk appetite of the CEO suggest that companies with the correct balance of independent directors and executive directors are more likely to curb CEO risk appetite and improve company performance. The literature, however, did not quantify the exact mix of directors that would achieve this target, but did highlight the dangers associated with over allocating board positions.

2.4 Environmental impact on the risk appetite of a CEO

Research regarding CEO dominance and its impact on the firm's performance was conducted by Haleblain and Finkelstein (1993), where it was ascertained that firms with dominant CEOs generally performed worse when economic environments were turbulent (Haleblain & Finkelstein, 1993). The findings of Hermalin and Welsbach (1991), however, did not manage to find a relationship between board composition and performance, but did conclude that executive (internal) directors (including the CEO) were more responsible for creating value than external directors as a result of their day-to-day contributions to the organisation (Hermalin & Welsbach, 1991).

The research performed by Chatterjee and Hambrick (2011) supplements the findings of Haleblain and Welsbach (1991) and Haleblain and Finkelstein (1993) where it was discussed that there was a possibility of external contextual stimuli influencing the decisions made by executives. Chatterjee and Hambrick (2011) claimed that, executive's assessments are shaped by contextual stimuli, especially 'capability cues' (p. 202), which are contextual signals that decision makers might reasonably interpret as indicators of their (or their organization's) current level of overall ability. Such cues include the organisation's recent performance and recent social praise for the CEO in the forms of media admiration and media awards. It is hypothesised that positive cues will induce boldness (or a greater risk appetite),

while negative cues will induce timidity (or a weaker risk appetite) (Chatterjee and Hambrick, 2011).

The literature relating to the impact of the environment on CEO risk appetite verified that external stimuli, whether it be the prevailing market trends or media speculation, has a legitimate impact on CEO risk appetite.

2.5 CEO risk appetite and company volatility

Belghitar and Clark (2011) define risk aversion as 'the extent to which an agent dislikes risk and is willing to avoid it' (p. 5), which, according to them, represents the most common form of risk appetite. Using this definition, they developed a model which adjusts for firm specific characteristics before evaluating the relationship between CEO risk appetite and company volatility (Belghitar & Clark, 2011). Based on their findings, it is suggested that CEO risk appetite has a significant effect on firm volatility. It is also suggested that factors which impact CEO risk appetite include, but are not limited to: age, education and job experience (Belghitar & Clark, 2011). The authors go on to recommend that CEO biographical characteristics need be considered when trying to understand the level of firm volatility and performance (Belghitar & Clark, 2011).

Adams et al. (2005) theorised that firms in which the CEO has less power to influence decisions will have less extreme performances (lower volatility). With less power, more moderate decisions will be taken because the CEO will have to compromise with other members of the top management team when they disagree with them (Adams et al., 2005).

However, Rashad Abdel-khalik (2006) argued that the power of the CEO wasn't the primary issue impacting volatility but rather the CEO's propensity to take risk.

Rashad Abdel-khalik (2006) stated 'that this preference for smooth earnings is not uniformly distributed across CEOs and it, instead, depends on the CEO's propensity to take risk. Assuming that they have similar utility over wealth, they are expected to exhibit different degrees of aversion to risk, depending on their wealth endowments and compensation structure' (p. 4).

The research performed by Rashad Abdel-khalik (2006) determined that the relationship between CEO risk appetite and volatility in company performance were positively related, implying that company performance would increase in volatility as the levels of CEO risk appetite increased (Rashad Abdel-khalik, 2006).

The literature concerning the impact of CEO risk appetite on the volatility of company performance indicated that a relationship exists between the two variables and that the relationship is positive in nature.

2.6 Impact of biographical characteristics on CEO risk appetite

The research done by Malemendier and Tate (2005), measures the impact of CEO overconfidence on corporate investment. Overconfidence, as defined by the Oxford English Dictionary, is 'excessively feeling or showing certainty about something' and can be likened to the actions taken when a strong risk appetite is present. Similar to factors cited by Belghitar and Clark (2011), it was purported by Malemendier and Tate (2005) that criteria such as educational qualification, employment background, birth cohort and accumulation of titles could be used in evaluating overconfidence levels (Malemendier & Tate, 2005). Based on the inference that overconfidence mimics a strong risk appetite, these criteria can also be used in the evaluation of CEO risk appetite.

The research performed by Chatterjee and Hambrick (2011) supports the assertion that risk appetite is related to confidence levels. They also claimed that 'At the core of an executive's subjective assessment of risk is his or her sense of confidence. Compared with gamblers, who cannot influence whether their bets will work out, business executives may believe that their personal talents, as well as the capabilities of their organisations, can greatly affect whether their risky initiatives will bear fruit' (Chatterjee & Hambrick, 2011, p. 203). However, it should be noted that Chatterjee and Hambrick (2011) do not attribute overconfidence to the typical biographical characteristics such as age and education but rather to factors such as public recognition or the accumulation of awards and titles (Chatterjee & Hambrick, 2011).

Chou, Lee and Ho (2007) investigated whether the risk appetites of older and younger participants of their research differed depending on their mood. It was ascertained that although the risk appetites of the younger participants remained stable irrespective of their mood, the risk appetites of the older participants appeared to fluctuate (generally increased) as their mood changed. They concluded that the change in risk appetite of the older participants indicated a differing propensity for risk as a result of age, implying that an increase in age was positively related to an increase in risk appetite (Chou, Lee & Ho, 2007).

A view similar to that of Malemender and Tate (2005) is taken by Galasso and Simcoe (2011) who purport that due to a high level of confidence of a CEO, a company is likely to pursue a more ambitious innovation due to the underestimation of the probability of failure (Galasso & Simcoe, 2011). Such high levels of innovation can have the impact of exceptional financial performance in the case of success, or potential company-wide collapse in event of repeated failures. Galasso and Simcoe (2011) attributes the high level of confidence, even overconfidence (or risk appetite), exhibited by some CEOs to a biographical

characteristic in the form of an advanced educational background or high skill level (Galasso & Simcoe, 2011).

The findings of Delgado-García, de la Fuente-Sabat, and de Quevedo-Puente (2010), and the research performed by Bellante and Green (2004), also support the view that biographical characteristics are linked to risk appetite. Delgado-García et al. (2010) determined that highly educated CEOs of banks tend to adopt a riskier loan portfolio than their less educated counterparts, while Bellante and Green (2004) found evidence that demonstrated a decrease in risk appetite with an increase in age (Delgado-García, de la Fuente-Sabat, & de Quevedo-Puente, 2010; Bellante & Green, 2004).

The research performed by Frijns, Gilbert, Lehnert and Tourani-Rad (2011) included culture as an additional element to the list of potential biographical characteristics which influence CEO risk appetite. They also suggest that religion, which is interchangeable with culture in many parts of the world, can also be used as a biographical characteristic when assessing risk appetite (Frijns, Gilbert, Lehnert & Tourani-Rad, 2011).

Based on the literature relating to the impact of biographical characteristics on CEO risk appetite, there appears to be strong evidence supporting the claim that factors such as age, educational qualification, public recognition and culture do contribute to forming of the risk appetite of a CEO.

2.7 Impact of performance based compensation on CEO risk appetite

Although specific to the banking sector, the paper by Chen, Steiner and Whyte (2006) that investigates the relationship between executive compensation and market measures of risks, can be used as a blueprint in understanding similar

relationships in other industries. They concluded that option-based wealth induces risk-taking behaviour and such compensation does not necessarily enhance shareholder value (Chen, Steiner & Whyte, 2006).

Building on the findings of Belghitar and Clark (2011), another consideration when evaluating risk appetite of CEOs should be the extent and weighting of option based earnings. Similarly, Hermalin and Welsbach (1991) concluded that, at low levels of organisational ownership (by the CEO), any increases in ownership has the impact of improving organisational performance.

The research performed by Parrino, Poteshman and Weisbach (2005) evaluated changes in risk appetites of managers based on their level of stock options and the debt within an organisation. They assert that, 'managers' incentives to take risks increase substantially with firm leverage, because wealth transfers between shareholders and debt holders increase with leverage. When leverage is low (e.g., at typically observed levels), managers prefer safe projects. However, at high leverage ratios (e.g., above 50% debt/total capital), the wealth transfer effect dominates other effects and managers have incentives to take negative NPV projects that increase firm risk.' (Parrino, Poteshman & Weisbach, 2005, (p. 23). In the quotation, NPV indicates Net Present Value.

The research by Parrino et al. (2005) contradicts the findings of Chen et al. (2006), and states that, 'a manager who holds stock and options in proportion to the median ownership of CEOs at large publicly traded corporations is likely to behave in an overly risk-averse manner in selecting projects. The manager will accept some safe, value-reducing projects, and reject some risky, value-increasing projects.' (p. 48)

The study performed by Ross (2004) contradicts the work of Chen et al. (2006) and supports the finding of Parrino et al. (2005), by claiming that an increase in the

options granted to executives has the impact of increasing risk aversion. Ross (2004) does, however, qualify his assertion by stating that the quantity of the options granted will determine whether the reaction of the executive is to increase or decrease risk appetite (Ross, 2004).

Ross (2004) purports that should the quantum of options be exceedingly large, the likelihood of an increase in risk aversion is high due to the executive having a substantial financial investment in the company. Alternatively, should the quantum of options be marginal, the likelihood of an increase in risk appetite is high due to the executive not carrying a large amount of risk in the company, and by being incentivised to maximise the return on the existing options (Ross, 2004).

Based on the literature relating to the impact of performance based compensation on CEO risk appetite, there appears to be strong evidence supporting the claim that the quantum and nature of the compensation granted determines whether the executive is likely to increase or decrease their risk appetite. It is suggested that when performance based compensation becomes materially relative to an executive's net worth, a reduction in risk appetite is expected.

2.8 Impact of an ownership stake on CEO risk appetite

Goldberg and Idson (1995) define agency problems as 'when the manager (the agent) does not act in the best interest of the owners' (p. 315). It was also concluded by Goldberg and Idson (1995) that 'the separation of ownership from control in large corporations can cause agency problems' (p. 313). These findings further support those of Adams et al. (2005) and Core et al. (1999), where the extent of CEO power has a bearing on the performance of the organisation. An additional finding of the authors was that the relationship between agency effect

and executive pay was positive, implying that higher pay resulted in more agency problems (Goldberg and Idson, 1995).

The findings of Galasso and Simcoe (2011) support those of Goldberg and Idson (1995), Adams et al. (2005) and Core et al. (1999) by showing that institutional ownership encourages innovation by reducing the likelihood that a CEO is dismissed after a decline in profits, thus supporting the notion that institutional ownership by the CEO aligns the interests of the manager with that of the owners (Galasso & Simcoe, 2011).

The research performed by Jin (2002) supports the assertion that a CEO whose interests are aligned with that of the shareholders is likely to act in the best interest of the shareholders. Jin (2002) tests this assertion by comparing the risk appetites of incentivised and non-incentivised CEOs and identified that those who are incentivised wholly with company stock show far lower levels of risk appetite than those with diversified interests (Jin, 2002).

The literature relating to the impact of an ownership stake in an organisation on CEO risk appetite indicates strong evidence supporting the claim that a CEO who is participating in the ownership of the organisation is more likely to exercise an adverse risk appetite and to act in the best interest of the other shareholders.

2.9 Conclusion

The literature review that was performed has indicated that there has been a vast quantity of research conducted into the ability of a CEO to exert influence within an organisation, as well as research performed in respect of the factors that determine the level of influence that a CEO is able to wield.

The literature also indicated that a variety of factors have been attributed as being able to influence the risk appetite of a CEO, but that factors such as biographical characteristics, performance based incentives, the strength and composition of the board of directors and environmental cues have been identified as the most likely factors to considerably affect CEO risk appetite.

The literature, however, fails to draw conclusions for these assertions within a South African context, and fails to identify whether any relationship exists between a CEO's risk appetite and the performance of their respective organisation. The following chapters outline the research method that has been utilised to develop a greater understanding of this relationship, and identify whether the literature findings apply within a South African context.

CHAPTER THREE: RESEARCH QUESTIONS

This research is primarily intended to clarify whether any relationship exists between a CEO's risk appetite and their company's performance, but also intends to identify the factors which contribute to the potency of the risk appetite exercised by a CEO.

The research questions which follow have been developed to address these two criteria; the first aimed at evaluating all the factors which impact the intensity of a CEO's risk appetite, and the second aimed at determining the nature of the relationship between CEO risk appetite and company performance.

3.1 Research Question 1: What factors contribute to the intensity of a CEO's risk appetite?

A study conducted by Pathan (2009) argues that 'CEO power negatively relates to risk taking in an organisation because CEOs may prefer lower risk due to their wealth being fixed within the organisation' (p. 20), that is, more CEO power results in an organisation being more risk averse. The following criteria are all linked to the extent that a CEO may exert power within an organisation, and thus, according to the assertion made by Pathan (2009), should have a bearing on the resultant CEO risk appetite.

Strength of a company's board of directors

The assertion made by Adams et al. (2005) is that, as the strength of the board of directors of a company increases the ability of the CEO to influence that company's performance decreases. This research aims to evaluate whether the reduction of the CEO's ability to influence the company's performance is due to

a weakened risk appetite as a result the of a more rigorous approval process, or rather to a lack of authority created by a strong board structure.

Impact of performance based incentives

Chen et al. (2006) questioned whether the use of incentivised compensation practices that are based on short term company performance can have the impact of loosening the integrity applied to the decision making processes. This research aims to evaluate whether performance based incentives have the impact of increasing or decreasing the risk taking behaviour of CEOs, and the consequences this might have on longer term company performance.

Impact of a CEO aging

The findings of Chou et al. (2007) indicate that as managers increase in age, the volatility of their decision making also tends to show patterns of increase. This research aims to evaluate whether a change in a CEO's age has a substantial impact on their risk appetite. Should a relationship between the two variables be determined, the research also aims to identify whether a positive or negative relationship exists, and investigate any reasons for the existence of the relationship.

Impact of the economic recession and other environmental factors

This portion of the research encompasses the current economic climate, and aims to identify the extent that the existing economic recession has had on the risk appetite and decision making processes of CEOs. Consideration will be given to the state of the organisation prior to the onset of the recession and the nature of the organisations operations to ensure that the recession is not falsely cited as contributory factor.

3.2 Research Question 2: Is CEO risk appetite positively related to company performance?

It is hypothesised that, within limits, a relationship exists between the CEOs risk appetite and the performance of the company for which the CEO is responsible. It is further suggested that any relationship is likely to be linear and positive in nature.

Using the research questions developed above, a semi-structured interview outline was designed to collect the required qualitative data (reflected in Appendix II). The questions have been designed to obtain an understanding of CEO risk appetites and the governance structures within the organisations. The questioning also aims to uncover the factors influencing CEO risk appetite and to demonstrate a relationship between the overall organisational performance and the CEO's risk appetite.

In Chapter Four, the research methodology is explained and demonstrates how the researcher proposed to collect and analyse the data prior to validating the findings.

CHAPTER FOUR: RESEARCH METHODOLOGY

4.1 Introduction

Chapter Two provided a review of the literature while Chapter Three provided the research questions; in this chapter, the research methodology is explained via the research design and the research hypothesis. The discussion on the selection of research methodology is followed by the explanation of the choice of data-gathering method and sampling procedure. Thereafter, the data analysis procedure is discussed, with closing views on any research limitations that were identified.

4.2 Research method

CEO Risk Appetite

Before the impact of CEO can be determined, an assessment of the intensity of risk appetite of the CEO would then need to be made. According to Belghitar and Clark (2011), the analysis of an individual's biographical factors would allow for an assessment of the risk profile of that individual. Furthermore, Malemendier and Tate (2005) cited biographical characteristics as the cause for differing confidence levels of individuals, and that these factors can be the reason for overconfidence in some individuals.

In order to assess the risk profile of company CEOs, the following biographical information would be required:

- CEO's age,
- CEO's ethnicity,
- CEO's prior work experience, and
- CEO's educational history.

In addition, Chen et al. (2006) identified that changes in the proportion of option based earnings had the impact of modifying the risk behaviour in organisations. As such, an assessment of the weighting between fixed and flexible income of the CEO would need to be made. A further finding by Goldberg and Idson (1995) was that CEOs with an ownership stake in an organisation were less likely to partake in high risk behaviour. Thus, the ownership status of the CEO in the organisation should be determined to evaluate risk propensity.

After the consideration of the CEO's situational propensity for risk had been evaluated through the criteria demonstrated above, a self assessment of risk appetite and a scientific test to measure risk appetite would be incorporated into the model. The use of the scientific test would assist in removing some of the biases which can occur from using the demographic data and personal assessments.

Using the combination of the scientific and CEO biographic information, an assessment was made as to the overall risk appetite of the CEO in question. The weighting attributed to each of the variables was as follows:

- Biographical Information - 33.33%,
- Company Specific Information (including ownership and option based income) - 33.33%, and
- Scientific Evaluation - 33.33%.

Company Performance

Once an assessment of actual CEO risk appetite had been made, the impact of this factor on company performance was evaluated. To do this, information regarding the company performance was required. The financial data that was useful in assessing company performance included:

- Revenue,

- Net Profit before Tax,
- Company Liquidity, and
- Return on Equity.

Each of these factors was individually used as a measure for company performance in addition to the use of a combined factor which incorporated all of these financial ratios.

Qualitative Approach

As described earlier, the assessment of CEO risk appetite required analysis of the CEO's biographical information as well as the extent of CEO ownership in the organisation and the apportionment of the CEO's compensation (that is, the allocation between fixed and flexible earnings and the extent of option based earnings). In order obtain the required level of data to make an adequate assessment of CEO risk appetite, and to understand nuances behind these characteristics, a detailed information extraction approach was required. As such, qualitative analysis had been selected for this purpose.

Terre Blanche and Durrheim (2002) describe a qualitative approach as being more likely to focus on understanding that which is researched without assigning any numerical values to the findings. When evaluating CEO risk appetite, the research aimed to achieve this goal of understanding the findings.

Quantitative Approach

In addition to obtaining information to assess CEO risk appetite, an assessment of company performance was required. The nature of this assessment called for the analysis of numerical data at a less focussed level. In order to achieve the necessary results, quantitative analysis could be utilised as this is generally used to obtain empirical support.

Terre Blanche and Durrheim (2002) describe a quantitative approach as likely to focus on the collection of data in the form of numbers and aims to quantify that which is researched. When evaluating company financial performance, the research aimed to achieve this goal of collecting and quantifying numerical data. Also, since this information was already available per the accounting records of the organisation (in a numerical format), using a qualitative approach would be inefficient.

Descriptive Design

In order to obtain the relevant information for assessing CEO risk appetite, a semi-structured interview was utilised. May (2001) believes that interviews could be the appropriate choice when wishing to gain an understanding of participants' experiences, as they yield 'rich insights into people's experiences, opinions, aspirations, attitudes and feelings.' (p. 120). The use of a questionnaire was also deemed to be too informal, based on the stature of the interviewee, who may not have appreciated having to participate in such an exercise.

A semi-structured interview was also preferable to a structured interview as it would allow for more flexibility depending on the flow of questioning and responses. As such, it provided the most insight into the attitudes and approaches adopted by the CEO while still maintaining the professional approach engendered by the interview process.

In addition to the conducting of a semi-structured interview, the analysis of secondary data was also necessary to obtain an understanding of company performance. Although portions of the information required could be extracted via the interview process, the information was readily available through the accounting records of the organisation. Analysis of company records is also advised as it provides additional legitimacy when audited records are used.

Regression Analysis

Before a regression of the variables (Albright, Winston & Zappe, 2009) could be conducted, an analysis of the findings of the semi-structured interview and financial records needed to be completed. This required that numerical weightings were attributed to CEO characteristics and to responses thus developing numerical values which represented CEO risk appetite.

The financial data of each organisation was used to calculate the various financial ratios, thus generating an even standing whereby smaller and larger companies could be evaluated without prejudice. When performing the calculation of the financial ratios, preference was given to profitability and liquidity ratios as these categories of ratios generated better short-term findings, which have been deemed as more relevant for the purposes of the research conducted.

Once the CEO risk appetite and company performance scores were calculated, these figures formed the two data sets for the regression analysis. The company performance was used as the dependant variable because the hypothesis was aiming to determine whether CEO risk appetite had an influence on it. Once the regression was completed, an analysis of the correlation coefficient was performed to determine the strength of the relationship between the two variables, thus validating or invalidating the proposition.

4.3 Interview question design

The primary purpose of the interview was to obtain an understanding of the risk appetites of the CEOs interviewed. When developing the content of the interview, consideration was given to the questions to ensure that no unnecessary information was collected, and that the information collected was adequate to answer the research questions.

To ensure the integrity of the interview, the following guidelines set out by Zikmund (2003) were utilised:

- Words are carefully selected to eliminate ambiguity,
- Complexity was minimised by using simple, conversational language, and
- Leading questions were avoided.

4.4 Population

Listing Status of the Organisations

The choice of selecting all organisations created difficulties around the consistency of data between listed and non-listed organisations. Listed companies generally provide far more accurate financial information as a result of regulation and a more stringent audit process. In addition, listed organisations also tend to produce more detailed financial records that clearly outline significant events that occur within the organisation; and have additional sources of information such as press releases.

Non-listed companies also provide audited financial statements, thus produce a high quality of information. While not being as detailed as that of a listed organisation, the information available from non-listed companies are still of a reasonable standard. However, additional information regarding non-financial data may have been more difficult to obtain as it may not have been readily available. Furthermore, access to the financial records of non-listed organisations is generally not available in the public domain and may have proven difficult to obtain.

Another consideration when deciding the type of entity to select would be access to its CEO. Due to the stature of the CEO, access to interview such an individual may have proven difficult for both listed and non-listed entities. However, listed entities provided additional complications in this regard due to the busy schedule imposed

on these individuals and the potential for 'closed periods' (that is, periods where information is sealed due to the imminent release of bi annual financial results).

Based on these considerations, the use of listed companies would have provided more accurate financial information but would not have provided ease of access to its CEO. Also, listed companies, due to their complex operating environments, create additional variables which weaken the ability of the CEO to exert power on the organisation. As such, the use of solely non-listed companies had resulted in more relevant information for the purpose of this assessment.

Industry Specification

When deciding whether a specific industry should be targeted for the purposes of the research or whether all industries should be included, market power of an organisation within an industry was considered. This was especially true in the instances where monopolies existed within certain industries. In these situations, the choice of a single industry would have invalidated any findings as the CEOs of the other organisations would not be in a strong position to effect financial performance of their organisations through their risk appetite.

Another consideration that was made was whether the hypothesis was more suited to specific industries. When measuring the impact of share options or flexible income on CEO risk appetite, the banking sector would have provided compelling data due to the high volumes of incentives offered in this industry. However, most banking companies would not be appropriate for the analysis due to the non-listed organisation criteria discussed earlier.

The hypothesis could have been appropriate for testing in a single industry; however, this generally could result in difficulties due to many industries being excluded on the grounds of the existence of monopolies, or where an inadequate sample could have been obtained due to organisations being disqualified for other

criteria. As such, no specific industry or sector could have been isolated for testing and all industries should have been included when determining the population.

Universe and Population

Based on the hypothesis that the risk appetite of a CEO has an influence on company performance, the universe for this analysis included all organisations around the world that have a CEO or equivalent. However, when determining the population, consideration was given to the intention of the organisation (that is, its purpose for trading), and to the other limitations included above. After taking these factors into account, the population was reduced to non-listed South African companies that trade for the purpose of generating profits.

In addition, consideration was given to the accessibility of the CEOs of these organisations and to the availability of accurate financial records for the purpose of evaluating company performance. Taking these constraints into consideration, only companies that realistically had the potential to grant access to their records and CEO were considered for selection.

Based on the constraints outlined above, the selection made had been done through a convenience sampling technique (Stevens, 1996) and should have included only those organisations that the researcher could be expected to be granted access. The researcher decided to select companies within the investment portfolio of his employer to facilitate ease of access to company personnel and financial records. These companies also fit the profile of the population mentioned above.

4.5 Sampling method

Sample Size

In order to generate useable findings from the regression analysis, the sample needed to be of adequate size to provide meaningful analysis of the data. However, due to the tightly defined nature of the population and the limited accessibility to senior management of organisations, the sample size chosen could not be too large to inhibit the collection of the data. Accordingly, a sample of seven organisations and CEOs had been selected for the testing of the hypothesis.

4.6 Data collection

Primary Data

The primary data collected related to the assessment of CEO risk appetite. This information was obtained via the use of a semi-structured interview as it provided the deepest insight available regarding these matters and allowed for the maximum flexibility while maintaining professionalism. Refer to Appendix III for an outline of the interview questions.

Access to the CEO for the purpose of collecting the secondary data would usually have been unavailable to the general public, due to all of the organisations being privately owned. The researcher was able to bypass this restriction through the investor relationship which his employer holds with the sampled companies. This relationship also facilitated ease of access to the secondary data, as mentioned earlier.

The location for all but one of the interviews were scheduled at the premises of the CEO being interviewed to allow the researcher additional insight into the CEO's personality, and the culture of the respective organisation. The interview that was

not scheduled at the interviewee's premises had to be done so due to logistical and scheduling difficulties, but an additional insight into the CEOs personality was obtained via discussion with some of the CEO's fellow directors.

Secondary Data

The secondary data collected related to the financial performance of the organisation. In respect of the organisational financial performance, annual financial statements had been procured directly from the organisation's financial department. These records were required to include, at a minimum, the following information:

- Statement of comprehensive income,
- Statement of financial position,
- Statement of changes in equity, and
- Statement of cash flows.

As indicated earlier, this information would ordinarily not have been made available to persons outside the respective organisations, but through the investor relationship held by the researcher, access to the related information was assured. In addition, the researcher was able to obtain additional insight into the financial information by a suitably qualified employee of the sampled company.

4.7 Data analysis

Terre Blanche and Durrheim (2002) describe the purpose of data analysis as 'to place real-life events into some form of perspective, enabling others to see the phenomenon in a new perspective' (p. 140). In order to achieve perspective on the data collected from the semi-structured interview process, the researcher transformed the raw data into information using Zikmund's (2003) four phases:

- Editing,

- Coding,
- Data Entry, and
- Data Analysis.

Having obtained the data in the form of a semi-structured interview instead of a questionnaire, the editing phase was limited to completing any missing information on the interview notes from the interview audio recordings. After completing the editing phase, the data was coded to assign a numerical value to responses (in situations where the response was not already in a numerical format). This process also assisted with the grouping of open-ended responses into fewer generic categories. The data entry portion was used to capture the edited data into an electronic format to assist in the analysis phase.

The analysis was completed through the regression of the qualitative and quantitative data whereby the CEO risk appetite (qualitatively collected data) was identified as the independent variable and the company financial data (quantitatively collected data) was identified as the dependant variable.

In order to prepare the quantitative data for the regression analysis, the researcher extracted specific numerical data which was used in the calculation of the key financial ratios (as discussed in Chapter One). The calculated ratios then formed the second (dependant) data set for the regression analysis.

4.8 Research limitations

Possible limitations of the research:

- The sample size could be considered too small to be representative of all South Africa companies and CEOs.

- The sample set represents companies that have been acquired via a private equity transaction, generally through a leveraged buy-out and does not extend to companies across the entire country.
- It is possible that the study could be subject to response bias due to participants having some knowledge of the purpose of the research, and due to the researcher being employed by the organisation that holds a direct investment into the sampled companies.
- The risk appetites of the CEOs that were sampled may not be representative of the entire country as all the CEOs who were interviewed were based in either Gauteng or Mpumalanga.
- Restrictions placed on the confidentiality of the company financial records by the companies sampled do not allow for another researcher to perform follow-up research at a later date.

CHAPTER FIVE: RESEARCH RESULTS

5.1 Introduction

This chapter presents the results acquired from the data collection and analysis phase. The collection of data was comprised of two components; with the first being the qualitative study of CEO risk appetite, and the second component being quantitative in nature, and involving the analysis of the performance of the respective companies that are headed by the CEOs who were interviewed as part of the first component.

The data analysis methodology has been discussed in detail in the prior chapters, and has been developed with the purpose of answering the research questions that have been formulated in Chapter Three. A summary of the consistency in the relationship between the research questions, the literature, the data collection methodology and the methods of data analysis has been reflected in Appendix I.

The remainder of this chapter has been divided into two major categories, with the first disclosing the results of the qualitative evaluations of CEO risk appetite and the second disclosing the quantitative analysis of the relationship between company performance and CEO risk appetite.

5.2 Results from qualitative research

The qualitative research was performed through the use of semi structured interviews that were conducted with the CEOs of seven non-listed South African companies of varying industries and sectors. Due to the companies not being listed and their records not being available for public consumption, for the purposes of

anonymity, the companies and their corresponding CEOs have been (in no particular order) allocated a number between one and seven for reference purposes.

During the data collection phase, and through interactions with the respective CEOs, the researcher noticed that confidentiality was of the utmost importance for the sampled companies. As most of these organisations participate in highly competitive sectors, it is understandable the amount of importance that is placed on maintaining a competitive advantage. These sentiments were echoed by CEO 5, who stated 'our internal records (including financial records) contain information that our competitors would kill for.' Keeping this in mind, the researcher maintained high levels of security on all information gathered for this research process.

5.3 Results for Research Question 1: What factors contribute to the intensity of a CEO's risk appetite?

Strength of a company's board of directors

This portion of the research is aimed at identifying the relative ability of the respective companies' board of directors to influence decision making processes. This was achieved through an analysis of the composition of the board and through the feedback obtained from the CEO of that company. Once the influence of the board has been determined, the impact that such board has on CEO autonomy and risk appetite can be evaluated.

Based on the findings summarised per Table 1 (on the following page), all but two of the companies (i.e. Company 6 and Company 7) have a higher proportion of executive to non-executive directors. It is also noted that none of the companies have a ratio of non-executive to executive directors exceeding 2:1, but that the

opposite applies in the case of three companies, with Company 3, Company 4 and Company 5 having an executive to non-executive directors' ratio equal to or in excess of 2:1.

Table 1: Composition of the board of directors

	No. of Non-Executive Directors	No. of Executive Directors	Total	% of Non Executive Directors
Company 1	4	5	9	44.4%
Company 2	4	5	9	44.4%
Company 3	2	4	6	33.3%
Company 4	3	7	10	30.0%
Company 5	1	4	5	20.0%
Company 6	7	5	12	58.3%
Company 7	5	4	9	55.6%

The ratio of executive to non-executive directors is viewed as significant since non-executive directors are generally deemed to be independent and as acting on behalf of the shareholders in an unbiased capacity. In situations where non-executive directors are considerably outnumbered, their ability to influence opinion would be significantly impaired.

The interviews conducted with the seven CEOs indicated that the level of involvement of the board of directors in the approval process varied amongst the seven companies. Three companies (i.e. Company 1, Company 2, and Company 7) had a process whereby the individual CEOs made important decisions autonomously, two companies (i.e. Company 3, and Company 4) utilised an approval process whereby the executive management team collectively made

decisions, and the remaining two companies (i.e. Company 5, and Company 6) made all material decisions at a board of directors level.

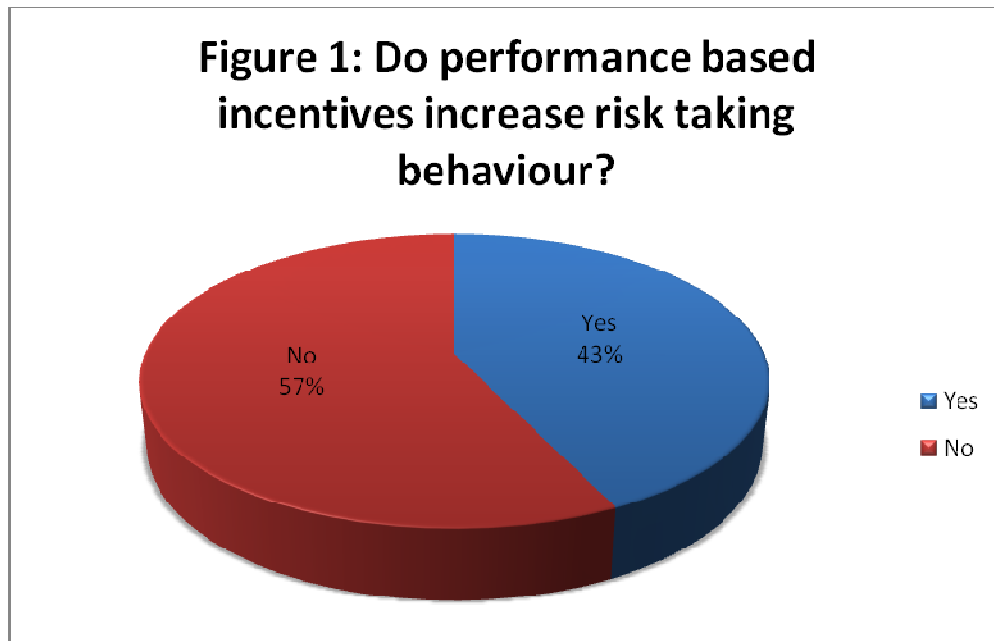
The opinions of the approval processes also varied greatly amongst the respective CEOs; with CEO 2 declaring that 'We don't like to make decisions by committee', while CEO 3 stated that 'it is preferable for management teams to make decisions as a group, especially when the decision is significant.' A common viewpoint amongst three of the CEOs was that autonomy in decision-making only existed to their respective levels of mandate, and any decisions taken beyond that threshold would require the involvement of the board of directors.

When asked to elaborate as to the reason for the chosen practice regarding the decision making process, most CEOs were of the opinion that their chosen method was the most appropriate method for the current circumstances of their respective companies. The CEOs were also primarily of the opinion that the current approval process was of their choosing, and that persons acting at that level of the organisation will normally act in a manner that is in the best interest of the organisation as a whole. On this matter, CEO 1 commented that 'in order for a process to work, it is necessary to obtain the buy-in of all affected parties.'

The researcher noticed that although CEOs who had a restricted mandate were willing to defend the level of authority granted to them, they still questioned the rationale for the number on non-executive directors. CEO 3 actually struggled to name all of the non-executives on the board of his organisation and questioned the need for having that many directors in the first place. Based on this, it would definitely appear that there is inclination by the CEOs towards having as much autonomy as possible.

Impact of performance based incentives

This portion of the research is aimed at identifying the impact that performance based incentives might have on the risk appetite of CEOs. In order to evaluate the relative impact of performance based incentives, an examination of the weighting of performance based compensation for the respective CEOs was performed. In addition, feedback was obtained from the respective CEOs regarding their view on the impact that performance based compensation has on executives within the organisation. This assessment of the change in risk appetite of company executives will be used as a proxy for the changes expected in CEO risk appetite.



As indicated per Figure 1 (above), a small majority of the CEOs that were interviewed were of the opinion that performance based incentives do not increase risk taking behaviour, while as many as 43% of the CEOs questioned believed otherwise.

Of the CEOs that were of the opinion that there was no evidence to suggest that performance based incentives increased risk taking behaviour at an executive

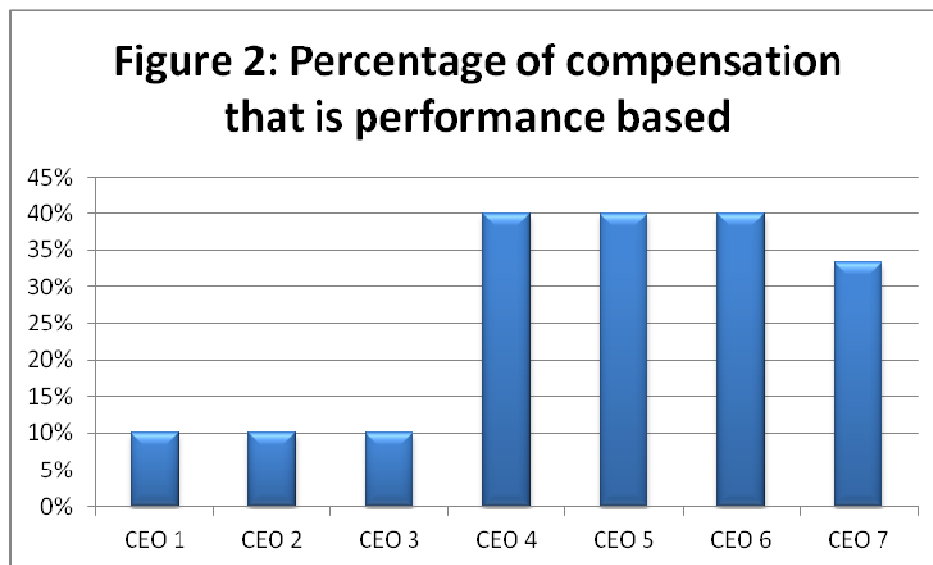
level, most of them were still of the opinion that performance based incentives would increase risk taking behaviour at a management level. CEO 4 stated 'senior management should be intelligent enough to make the right decisions for the benefit of the company but at lower levels the incentives need to be structured to ensure that risks are mitigated.'

When questioned on the topic, CEO 1 responded that 'a balance needs to be struck between managing reckless behaviour, opportunities and short term gain. Performance based incentives do increase risk taking behaviour but that's healthy as long as it is managed.' Although CEO 2 provided similar feedback by stating that 'performance based incentives encourages people to work harder and ultimately improve the business', he also noted that 'people will consider doing things outside the norm to improve performance which can be a risk.'

Of the CEOs who believed that a relationship existed between performance incentives and risk taking behaviour, all felt that the risks were manageable. They also indicated that their organisations would continue to apply a system of incentives though performance based compensation as it was necessary to remain commercially competitive. CEO 3 rationalised the use of performance based incentives by stating that, 'Performance based incentives encourage people to take ownership of what they do.' He added that 'people are materialistic and money driven and incentives are linked to pride or self esteem', which implies that people will perform better with incentives.

When questioned about the extent to which their personal compensation was comprised of performance based incentives, the CEOs were clear to distinguish between short and long term performance based incentives, with long term incentives generally being linked to ownership with the organisation. Since long term incentives are designed to encourage long term, sustainable growth, these are regarded as less related to risky behaviour and are not included in the

remainder of the discussion. The percentage of compensation that is made up of short term performance based incentives for the respective CEOs are include per Figure 2 (below).



Of the CEOs interviewed, none had short term performance based incentivisations that exceeded half of their gross compensation. The highest levels that were recorded were 40% by three CEOs, with a further three CEOs recording levels as low as 10%.

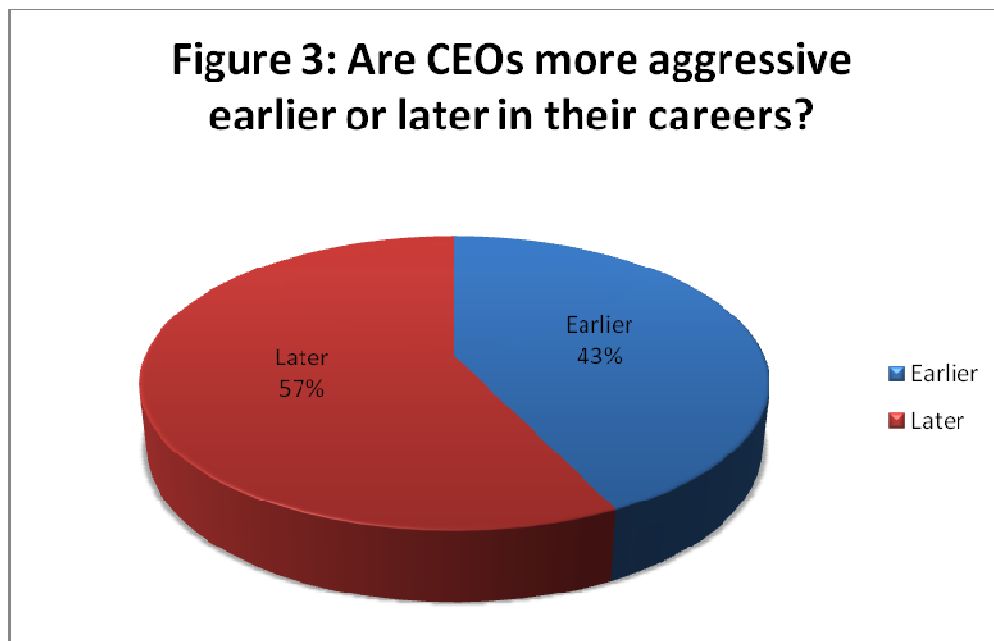
Through discussion with the CEOs per the interview process, the researcher discovered that most of the CEOs had a material portion of personal wealth invested within their organisations, and as such were incentivised to act in the best interest of the company for the long term. Concerning this, CEO 1 stated 'I am incentivised to do what's best for the shareholders because I am one.'

Impact of a CEO aging

This portion of the research is aimed at identifying whether aging has a significant impact on the risk appetite of CEOs, and whether that impact occurs in a

consistent pattern. In order to evaluate the extent to which aging plays a role in the change of a CEO's risk appetite, responses were obtained from the respective CEOs regarding their observations on the changes in their risk appetites over the duration of their respective careers.

Figure 3 (below) illustrates the responses obtained from the CEOs. Of the participants, 57% were of the opinion that they were more risk eager as their career progressed, while the remaining 43% were of an opposing view. CEO 1 was of the opinion that his risk appetite was greater at an early stage of his career and stipulated that having 'had his fingers burned in the past has resulted in more conservative behaviour.' CEO 2 echoed this view and added 'When you're younger, you don't always see the downsides as easily as you do when you get older.'



CEO 6 was of the opinion that risk appetite increased as one aged and justified that opinion by saying 'With age comes confidence and self belief. You tend to be less reliant on a salary so you can afford to make a mistake.' This was supported

by the view of CEO 7 who suggested that the courage of one's conviction increased with age and this lends itself to a more risk accepting mentality. Of the CEOs who indicated a high risk appetite at a more advanced age, all insisted that an advanced age brought experience, and with this experience came the ability to take more calculated risks.

Table 2 (below) summaries the ages of the CEOs that were interviewed and includes a self evaluated assessment of their risk appetites. Of the CEOs interviewed, the average age was in excess of 52 years and the average level of working experience exceeded 28 years. When evaluating risk appetite, all the CEOs rated themselves as being relatively aggressive, achieving scores of 70% or higher. However, none of the CEOs regarded themselves as having the maximum risk appetite, and only one of the CEOs (CEO 2) rated their personal risk appetite in excess of 80%.

Table 2: CEO age and self evaluated risk appetite

	Age	Risk Appetite
CEO 1	57	70%
CEO 2	52	88%
CEO 3	57	80%
CEO 4	43	70%
CEO 5	57	70%
CEO 6	54	70%
CEO 7	49	80%

When assessing personal risk appetite, CEO 6 stated 'I'm not scared of taking a chance as long as it's a calculated risk which equates to about 70%.' He added that 'With age, you've learnt what doesn't work. You may not know what to do but

you certainly know what not to do.' CEO 5 had a similar outlook and stated 'I spend most of my time on growth but all risks need to be calculated.'

The interview process highlighted to the researcher that even those CEOs who were 55 years and older were of the opinion that they would be working for another 15 years and thus were still in the prime of their careers. When questioned whether there was any temptation to retire in the next few years, all the CEOs were adamant that there was nothing else that they would rather be doing.

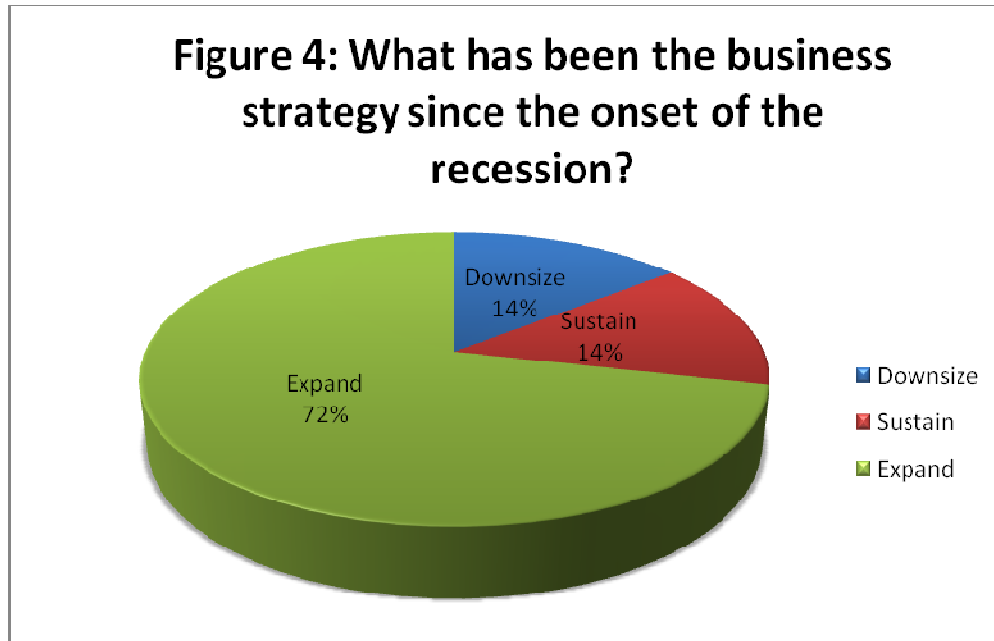
A theme stemming from the comments of most CEOs was that it is necessary to have a healthy risk appetite when charged with the responsibility of generating returns for shareholders. The difficulty for most of the CEOs was managing that appetite and finding the right balance between aggression and conservatism. A common thread was the acknowledgement that risks are necessary, but that those risks need to be calculated and, in most instances, discussed in a larger forum.

Impact of the economic recession and other environmental factors

This portion of the research is aimed at identifying the extent to which the current economic climate, specifically the worldwide economic recession has had on the risk appetite of CEOs. In order to evaluate the extent to which the recession has impacted CEO risk appetite, whether positively or negatively, responses will be obtained from the respective CEOs regarding the changes that have occurred to their business strategy since the onset of unfavourable economic conditions. Based on these changes, and the CEOs evaluation of the riskiness of these changes, an assessment will be made as to the impact of the economic recession on the risk appetite of CEOs.

Figure 4 (on the following page) illustrates the responses obtained from the CEOs regarding their strategies during the economic recession. Of the CEOs interviewed, five of seven had the intention to grow their business during the economic

downturn, while one CEO was content for his business to sustain its size during that period. The remaining CEO was of the opinion that the best strategy for his business during the uncertain economic period was to downsize or 'right size' as he put it.



Of the CEOs that were targeting growth during the difficult global financial phase, the majority cited the potential for opportunities when their competitors were shrinking as justification for their strategy. CEO 3 described the logic for his strategy as a philosophy passed on to him by his predecessor, claiming 'When things are bad, you should employ more sales people'. The intention of his philosophy is to afford his company the ability of being the first to react to opportunities by being appropriately stocked with talent. He was also of the opinion that good CEOs would spot improvements in the markets early on in the cycle, and waiting until then to increase capacity would be too late.

When questioned about the burden of carrying an excessive sales force on the organisation, CEO 3 was of the opinion that incentivising people with variable pay

would ensure that all sales people would justify their place. CEO 3 was, however, quick to emphasise that this strategy would only be feasible if the market downturn was expected to be short-term in nature, and that this approach could not be applied indefinitely.

CEO 6, who intended to sustain the size of his business throughout the duration of the recession, had a similar objective to CEO 3, but achieved it through the utilisation of a significantly different approach. He also intended to be able to react to opportunities which would present themselves after the economic cycle reversed, but intended to achieve this through the stockpiling of cash reserves and by limiting spending while the economic conditions were weakened. Once the economic conditions reversed, Company 6 would be in a position to acquire distressed companies or procure the clients of those companies who were unable to service their contacts.

Only CEO 7 preferred the strategy of downsizing, and felt that this was the best strategy to ensure the long term sustainability of his organisation. The industry in which Company 7 operated was severely impacted by the recessionary environment and resulted in a merger of industry competitors to maximise survival prospects. CEO 7 chose not to expand through a merger as he felt that a smaller organisation would be more nimble in an ever changing environment, and that any possible merger would be too great a risk to take.

The researcher noted that although the CEOs were able to justify the reasons for an aggressive strategy, the manner in which they vigorously defended their viewpoint implied that they were overcompensating for the hard-line that they had taken during a recessionary environment. This implied a high level of risk appetite amongst those CEOs who adopted an expansion strategy.

5.4 Results from quantitative research

In addition to the qualitative interviews that were conducted with the CEOs of the seven companies, the CEOs were also required to complete a quantitative investment risk assessment which was used to evaluate their respective risk appetites. The results of these assessments were integrated with the findings of the qualitative analysis and CEO self evaluations to identify the overall risk appetites for the participating CEOs.

In conjunction with the sourcing of primary quantitative data, company financial information, in the form of annual financial statements, was also obtained to allow for an assessment of company performance and an evaluation of the relationship between the two variables, namely CEO risk appetite and company performance.

5.4.1 Results from investment risk assessment

The seven CEOs were required to complete an investment risk appetite assessment which determined their propensity for risk based on their reaction to generic investment scenarios. The results of the assessment are included as per Table 3 (below).

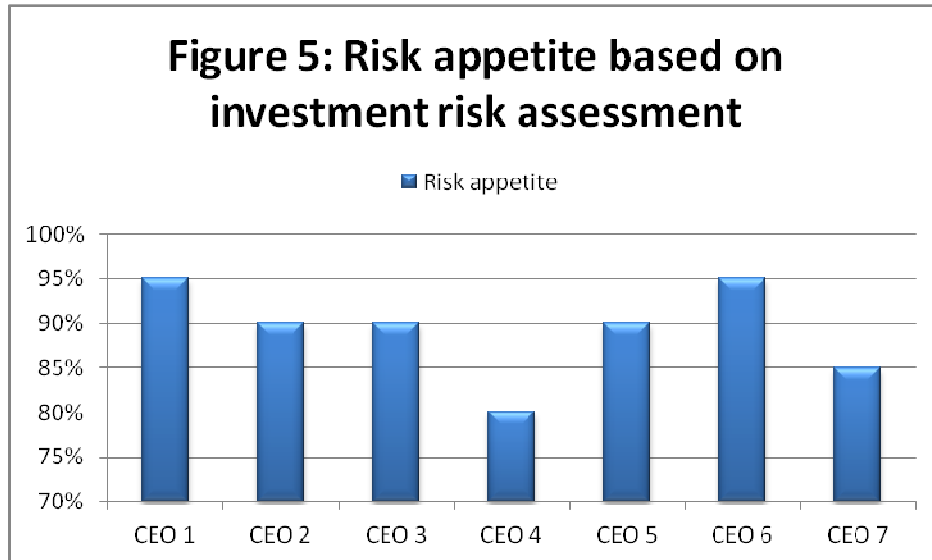
Table 3: Investment risk analysis

	1	2	3	4	5	6	7
Your stock market investment loses 15 per cent of its value in a market correction a month after you buy it. Assuming that none of the fundamentals have changed do you:							
a. Hold and wait for it to journey back up?							
b. Sell it and rid yourself of further sleepless nights if it continues to decline?	C	C	C	A	C	C	A
c. Buy more - if it looked good at the original price it looks even better now?							
d. You would not buy market linked investments in the first place.							

<p>Which would you have rather done?</p> <p>a. Invested in an aggressive growth fund which appreciated very little in six months?</p> <p>b. Invested in a money-market fund only to see the aggressive growth fund you were thinking about double in value in six months?</p> <p>c. Only Invest in long-term government bonds.</p>	A	A	A	A	A	A	A
<p>Would you feel better if?</p> <p>a. You doubled your money in an equity investment?</p> <p>b. Your money-market fund saved you from losing half your money in a market slide?</p> <p>c. Your money was kept on call to allow for immediate access?</p>	A	A	A	A	A	A	A
<p>It's 2015, and inflation is returning. Hard assets such as precious metals, collectibles, and property are expected to keep pace with inflation. Your assets are now all in long-term bonds. What would you do?</p> <p>a. Hold the bonds?</p> <p>b. Sell the bonds, and put half the proceeds into money funds and the other half into hard assets?</p> <p>c. Sell the bonds and put the total proceeds into hard assets?</p> <p>d. Sell the bonds, put all the money into hard assets, and borrow additional money to buy more?</p>	C	B	B	B	B	C	C

As reflected per the results in Table 3, the CEOs responses to the assessments were very similar with only a few exceptions being noted. In respect of questions two and three, all the CEOs chose the same option (option A), which implied the maximum level of risk taking behaviour. A similar pattern is reflected in question one, where five of the seven CEOs chose option C, being the maximum risk alternative, and the remaining two CEOs choosing option A, being the next most risky option. The similarity in responses continues in question four, with four CEOs choosing option B and the remaining three CEOs opting for option C, neither of which were the most risky option (option D).

Using the results from the assessment, a score was obtained for each CEO's personal risk appetite. These scores have been illustrated per Figure 5 (below).



Although the responses per the assessment were very similar, the few variations resulted in a spread of risk appetite scores for the CEOs ranging from 80% to 95%. Most scores appear on the upper end of the risk appetite scale due to the aggressiveness of risk appetite shown by the CEOs in questions one, two and three, which involved investing of personal equity and did not involve the need to borrow funds.

5.4.2 Results from financial analysis

The second part of the quantitative analysis involved the collection and interpretation of the financial records of the sampled companies. From these financial records, some key metrics have been extracted and disclosed as per Table 4 (on the following page).

Table 4: Company financial information

	Revenue	Net Profit before tax	Total Equity	Current Assets	Current Liabilities
Company 1	274 346 924	50 250 237	22 573 784	197 717 191	138 963 237
Company 2	298 053 000	52 042 000	63 424 000	191 517 000	121 812 000
Company 3	154 425 552	17 235 417	70 171 542	165 048 119	82 286 094
Company 4	1 764 149 000	81 758 000	491 564 000	871 102 000	318 053 000
Company 5	197 821 507	44 106 648	83 852 923	68 012 660	87 974 873
Company 6	2 479 272 760	126 172 607	726 351 863	1 649 894 400	848 826 044
Company 7	683 171 000	75 775 000	287 335 000	460 346 000	148 724 000

As discussed in the methodology, all the companies selected were non-listed and as a result, do not have the same scale of operations as some listed companies in South Africa. The amounts, however, still vary significantly for smallest to largest which have a difference of as much as 1 253% being reflected on revenues, and differences as large as 2 426% being reflected on current assets.

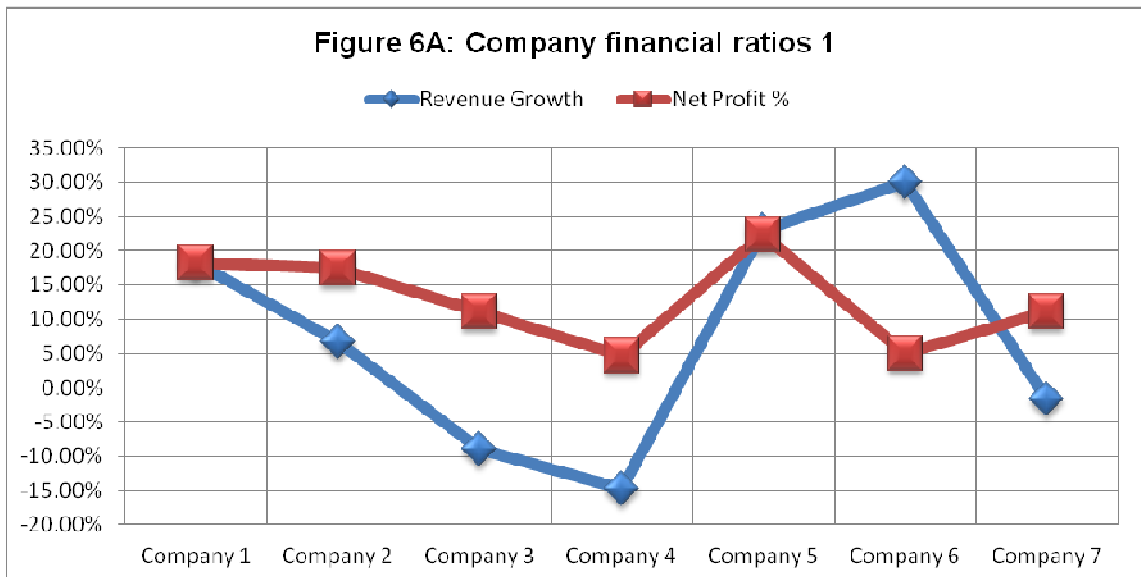
In order for the companies to be comparable and for meaningful indices for company financial performance to be developed, financial ratios needed to be calculated by using the company financial information reflected in Table 4. These ratios have been disclosed in Table 5 (below):

Table 5: Company financial ratios

	Revenue Growth	Net Profit %	Net Profit Growth	Return on Equity	Liquidity Ratio
Company 1	18.35%	18.32%	126.54%	1.60	1.42

Company 2	6.68%	17.46%	36.26%	0.60	1.57
Company 3	-8.94%	11.16%	-29.22%	0.18	2.01
Company 4	-14.81%	4.63%	-17.69%	0.12	2.74
Company 5	23.13%	22.30%	4.24%	0.37	0.77
Company 6	30.03%	5.09%	13.40%	0.12	1.94
Company 7	-1.66%	11.09%	-7.03%	0.18	3.10

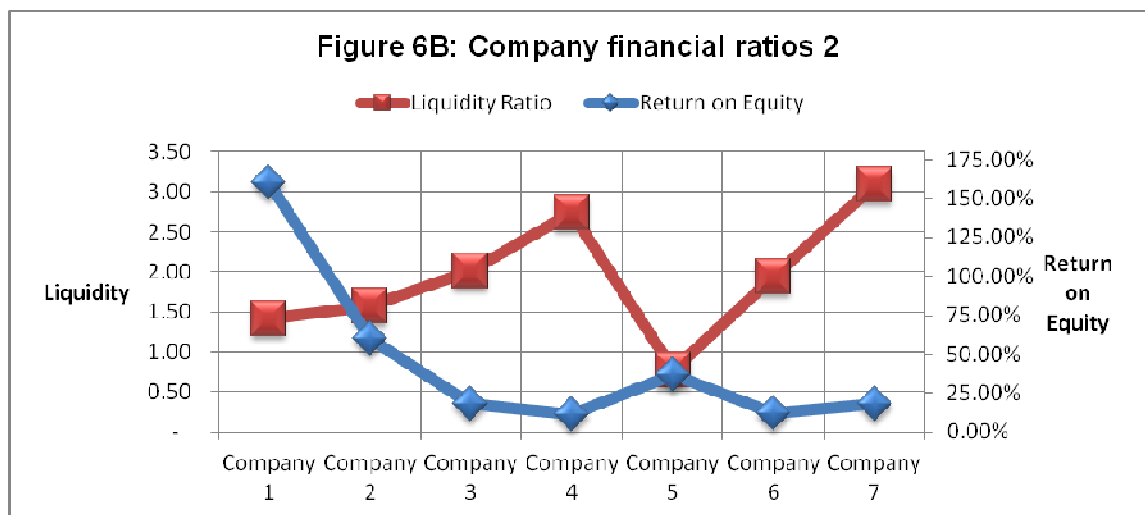
As illustrated in Table 5 (above), three of the seven companies have had a reduction in revenues and net profit during the past year but have all still managed to remain profitable (see Table 4) during this period. It is also evident that, with the exception of two companies (Company 4 and Company 6), the companies have a net profit percentage in excess of 10%, which means that they are able to convert more than 10% of their revenues into shareholder value.



It is also worth noting from the ratios that although Company 5 generates the highest net profit percentage, it is the only company that is presently illiquid

(current liabilities exceed current assets). As per the discussion with CEO 5, the reason for Company 5 being illiquid and the time of calculating the ratios was due to a payment of a dividend shortly before the end of the financial year, and it was expected that the situation would correct itself over the subsequent months.

The final ratio worth noting, and probably the most relevant when evaluating financial performance, is the Return on Equity (ROE). With the exception of two companies (Company 4 and Company 6) all companies significantly exceed the market return of an equity investment which averages 15%.



5.5 Results from Research Question 2: Is CEO risk appetite positively related to company performance?

In order to perform the regression, two sets of data were required. The first set representing the risk appetite of the CEOs interviewed and the second set representing the financial performance of the respective companies pertaining to those CEOs.

Risk appetite

Using the results obtained from the qualitative analysis and quantitative analysis, a weighted average risk assessment was calculated for each CEO, thus including all the sources of data that had been obtained. The weighted average risk assessment was comprised of three primary sources, i.e.: the CEO biographical data, the self assessment (adjusted for company specific circumstances) and the scientific risk assessment. A summary of the risk appetite scores for each of the three contributing categories as well as the overall blended risk appetite score has been summarised as per Table 6 (below).

Table 6: CEO risk appetite summary

CEO	Risk Appetite			Weighted Average (Blended)
	Biographical Characteristics	Company Specific	Scientific Risk Assessment	
1	100%	84%	95%	93%
2	91%	100%	90%	94%
3	39%	71%	90%	67%
4	50%	69%	80%	66%
5	78%	69%	90%	79%
6	97%	76%	95%	89%
7	42%	65%	85%	64%

In order to calculate the risk appetite based on biographical characteristics, a score was given to each CEO based on their age, their educational history, the number of previous executive positions that were held, and the time spent in their current role.

In order to calculate the risk appetite based on company specific information, the CEO's personal evaluation of their risk appetite (as disclosed in Table 2) was used

as a base. This base was then adjusted for the extent that the CEO's income was performance related, the decision making processes within the organisation, and the business strategy since the onset of the economic recession.

The final component for calculating the blended CEO risk appetite was the scientific risk assessment (as disclosed in Figure 5). Once the three assessments of CEO risk appetite had been determined, an average risk weighting was calculated with each contributing component carrying an equal weighting.

Company performance

Using the results obtained from the quantitative analysis, a weighted average assessment of company performance could be developed. This is done by equally weighting the three financial ratios which best indicate recent current performance, hence are the best indicator of the impact made by the incumbent CEO. The financial ratios selected for this exercise were revenue growth, net profit growth and return on equity invested. The results of this calculation are reflected in Table 7 (below).

Table 7: Company performance summary

	Revenue Growth	Net Profit Growth	Return on Equity	Company Performance
Company 1	18.35%	126.54%	160%	102%
Company 2	6.68%	36.26%	60%	34%
Company 3	-8.94%	-29.22%	18%	-7%
Company 4	-14.81%	-17.69%	12%	-7%
Company 5	23.13%	4.24%	37%	21%
Company 6	30.03%	13.40%	12%	19%
Company 7	-1.66%	-7.03%	18%	3%

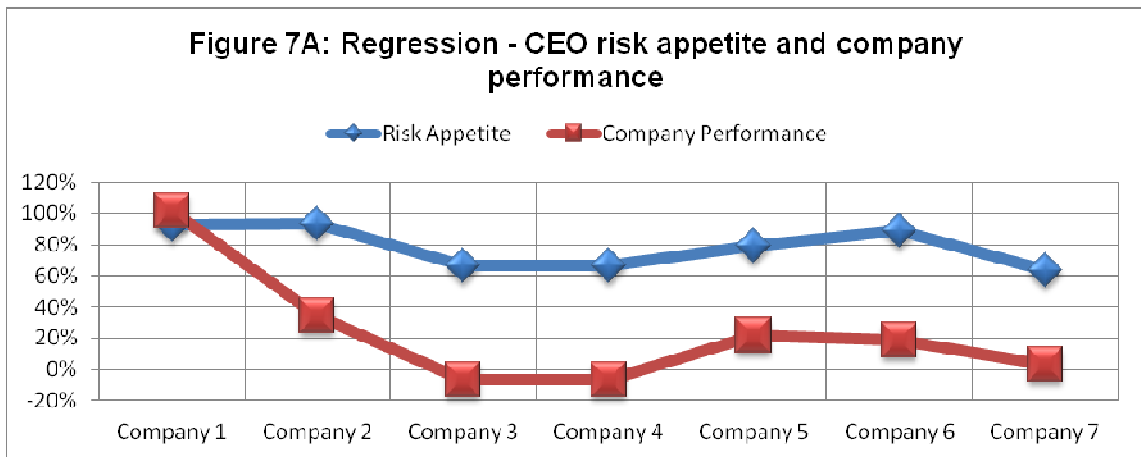
Regression Analysis

Using the two data sets with the CEO risk appetite being the independent variable and the company performance used as the dependant variable, a regression analysis was performed using a confidence interval of 95%. The summary of the results of the regression has been included as per Table 8A (below).

Table 8A: Regression analysis between CEO risk appetite and company performance

Summary	Multiple R	R-Square	Adjusted R-Square	Std Error of Estimate		
	0.75379	0.56821	0.48185	0.27126		
ANOVA Table	Degrees of Freedom	Sum of Squares	Mean of Squares	F-Ratio	p-Value	
	1	0.48414	0.48414	6.57960	0.05034	
	5	0.36791	0.07358			
Regression Table	Coefficient	Standard Error	t-Value	p-Value	Confidence Interval 95%	
					Lower	Upper
Constant	-1.45514	0.66740	-2.18032	0.08108	-3.17074	0.26046
Overall Blended Rating	2.14398	0.83583	2.56507	0.05034	-0.00460	4.29256

After inspection of the graphical representation of the two data sets, as disclosed per Figure 7A (below), it was noted that Company 1 did not follow the same trend pattern as the other companies. Based on this variance, it was decided that a second regression should be performed without the data obtained from Company 1 and its corresponding CEO.



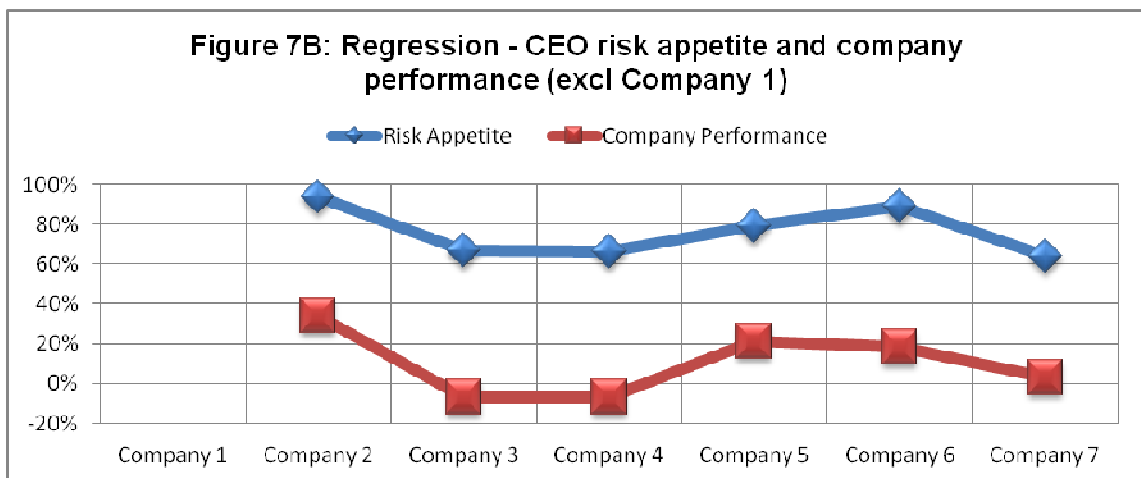
The summary of the results of the second regression has been included as per Table 8B (below).

Table 8B: Regression analysis between CEO risk appetite and company performance (Excl Company 1)

Summary	Multiple R	R-Square	Adjusted R-Square	Std Error of Estimate
	0.90862	0.82560	0.78199	0.07837

ANOVA Table	Degrees of Freedom	Sum of Squares	Mean of Squares	F-Ratio	p-Value	
Explained	1	0.11629	0.11629	18.93515	0.01214	
Unexplained	4	0.02457	0.00614			
Regression Table	Coefficient	Standard Error	t-Value	p-Value	Confidence Interval 95%	
					Lower	Upper
Constant	-0.80377	0.21158	-3.79885	0.01912	-1.39121	-0.21632
Overall Blended Rating	1.18877	0.27319	4.35145	0.01214	0.43027	1.94726

The graphical representation of the two data sets, excluding Company 1, is disclosed per Figure 7B (below). With the exclusion of Company 1, both data sets appear to follow the same trend pattern.



This chapter disclosed the results of the data which has been collected per the interview process and analysed per the methodology. Chapter 6 will disclose the interpretation of these results and relate these findings to the literature that was disclosed in Chapter 2.

CHAPTER SIX: DISCUSSION OF RESEARCH RESULTS

6.1 Introduction

The purpose of the research was to identify whether any relationship existed between CEO risk appetite and company performance. The research also aimed to identify which factors were significant in influencing the extent and nature of CEO risk appetite.

This chapter provides an understanding into the results that have been reported in Chapter 5 and relate the findings to the literature that was reviewed in the prior chapters.

As per the outline followed in Chapter 5, the remainder of this chapter has been divided into two major categories, with the first discussing the findings of the qualitative evaluations of CEO risk appetite and the second discussing the quantitative analysis of the relationship between company performance and CEO risk appetite.

6.2 Interpretation of findings relating to qualitative research

In addition to the research questions posed, the semi-structured interviews that were performed at the administrative or manufacturing premises of the sampled companies indicated recurring themes regarding the nature of the organisations and their respective CEOs. These themes will now be analysed individually to identify reasons for their occurrence.

Level of CEO involvement

Almost all of the CEOs who were interviewed stressed the importance of utilising a 'hands on' approach towards running and organisation. Although this is a common viewpoint amongst many business people, the researcher attributes this behaviour to the ownership exercised by the various CEOs, thus creating an entrepreneurial mentality towards doing business. This entrepreneurial mentality was evidenced by CEO 3 who had spent the four days that preceded the interview driving to all his major clients (across the country) to provide after sales service and obtain feedback about the products purchased.

This attitude towards doing business can be attributed as one of the key factors that resulted in the significant financial success achieved by these organisations, as evidenced in Tables 4 and 5 (Chapter 5). This mentality can also be accredited for the high quality of information that was provided to the researcher during the interview process as all of the CEOs had a technical, strategic and financial understanding of their respective organisations.

Prior work experience of CEO

The researcher noticed that all of the CEOs forming part of the sample group had employment experience at an executive-level role prior to their current position as CEO of their present organisation. It was also noted that as many as half of these CEOs had obtained this experience in another organisation, indicating that the CEOs were generally external appointments.

The researcher identified that the reason for the high level of prior experience and external appointments in the sample group could be attributed to all of the organisations having been the subject of a private equity leveraged buy-out transaction. During the process of these transactions, it is usually the procedure for a significant portion of the incumbent executive management team to be

replaced by a new team of executives whom the acquirer has specially selected for the positions that have been vacated.

The level of experience displayed by the respective CEOs, and having been custom selected for their respective organisations, can also be attributed as noteworthy reasons for the strong financial performance achieved by these organisations.

High self assessment of risk appetite

As evidenced in Table 2 (Chapter 5), it is noted that the CEOs rate their level of risk appetite at a relatively high level. The researcher also came to the realisation, through the interview process, that these self assessments were generally conservative estimates by the CEOs, who would have rated their risk appetites even higher if they were taking their personal lives out of the equation (i.e.: their business related risk appetites may be even higher than the scores suggest).

The rationale obtained from the CEOs for their reasonably high risk appetites, averaging 75%, was the nature of their occupation. All CEOs cited that merely being an executive at a high performance organisation resulted in increases to their risk appetites. CEO 2 implied that he wouldn't have been suitable to perform his role he did not have the 'stomach for the job' and in that situation, the shareholders of his organisation would probably look to replace him with somebody who did.

It is the opinion of the researcher that the nature of the industries in which the respective companies operate also contribute to the healthy risk appetite amongst the CEOs due to there being high levels of competition and no clear market leaders in most instances. These conditions encourage the CEOs to 'push the envelope' in order to gain a competitive advantage and increase shareholder

value. The researcher is of the opinion that although high risk appetite scores were identified, the scores were not outside the expected range for an executive.

Biographical commonalities of the CEOs

A finding of the qualitative research process was that the executive structures of the companies sampled were male dominated and that the CEOs interviewed were all male. Reasons for the gender imbalance were not clearly apparent from the interview process but this finding did support the literature in explaining the reasons for the high risk appetite levels that were prevalent amongst the CEOs.

Belghitar and Clark (2011) and Malemendier and Tate (2005) cited that biographical characteristics, including gender, were responsible for determining confidence levels (a proxy for risk appetite) and that males generally exhibited higher levels of this attribute than females.

It was noted by the researcher that other biographical commonalities were exhibited by the majority of the CEOs and that these criteria also supported the literature's findings regarding risk appetite. One such commonality was that the majority of the CEOs attended a boarding school which has been suggested to increase the competitiveness of its attendees. Another commonality was that all but one of the CEOs had Western European ancestry, another factor cited by the literature as a cause of elevated risk appetite.

The researcher also noted that all the CEOs had attended tertiary institutions and most of them were leaders of sporting teams in their youth. Both of these factors have been cited in the literature as potential contributors of elevated confidence levels and, along with the other commonalities, can be attributed to the high risk appetites witnessed by the researcher.

6.3 Interpretation of findings relating to Research Question 1: What factors contribute to the intensity of a CEO's risk appetite?

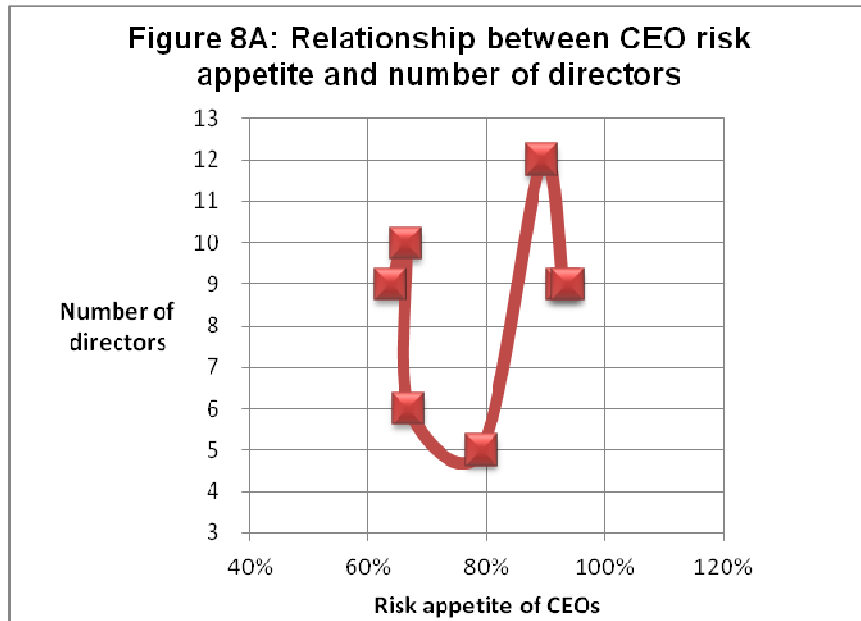
As in Chapter 5, Research Question 1 has been separated into sub categories for ease of analysis. The findings relating to these sub categories have been reflected in the pages that follow.

Strength of a company's board of directors

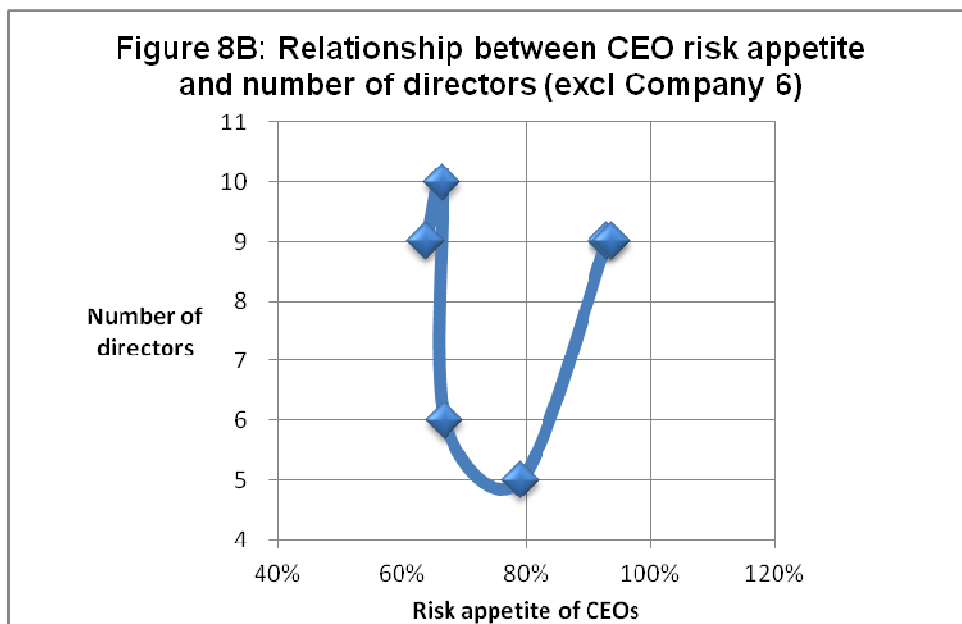
The literature on governance reflected opposing views regarding the impact that an increase in the amount of board strength had on CEO risk appetite. Core et al. (1999) suggested that the stronger the board, the weaker the CEO risk appetite. While Pathan (2009) suggested that the stronger the board, the greater the overall company risk appetite.

The research performed in this instance yielded similar results to the research of de Andres and Vallelado (2008) who indicated that the relationship between the size of the board and company performance shared a U-shaped relationship. In this situation, company performance is replaced by risk appetite (variables that are hypothesised to share a linear relationship) and the resulting relationship is demonstrated per Figure 8A (on the following page).

It is apparent, at moderate levels of board representation, that the risk appetite of the respective CEOs fall within the average range of scores that were achieved (average risk appetite was 75%), but at higher levels of board representation the risk appetite of the respective CEOs either increase or decrease in accordance with the increase in board representation.



The researcher noted that with the exception of the company having the highest number of directors (12 directors) the remaining samples yielded a U-shaped relationship similar to that reported in the literature. This relationship is represented per Figure 8B (below).

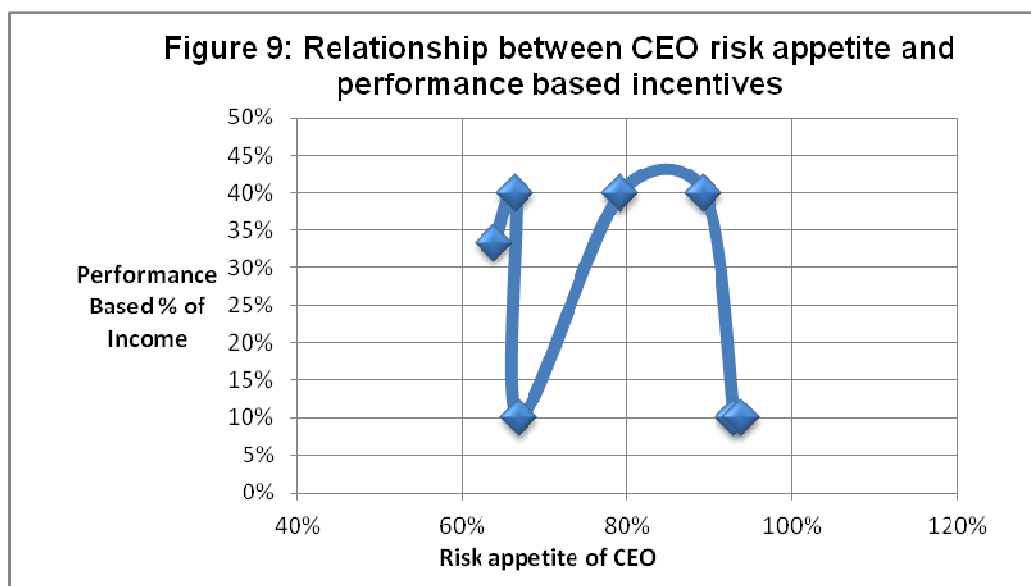


The research findings regarding the impact of the strength of a company's board on the risk appetite of its CEO indicate a definite association between the two variables in the form a U shaped relationship. This supports the work of Core et al. (1999) and Pathan (2009) that a relationship exists between the two variables and most closely supports the research of de Andres and Vallelado (2008) who indicated a similar shaped relationship between compatible variables.

Impact of performance based incentives

The literature on the impact of performance based incentives on the risk appetite on CEOs indicated the existence of a linear relationship between the two variables (Chen et al., 2006; and Ross, 2004). In the case of the research by Chen et al. (2006), this linear relationship was positive in nature and in the case of the research by Ross (2004), this relationship was negative in nature.

As demonstrated in Figure 9 (below), the findings uncovered as part of this study do not support any of the findings identified per the literature and is unable to substantiate whether any measurable relationship exists between the level of performance based earnings and the level of CEO risk appetite.



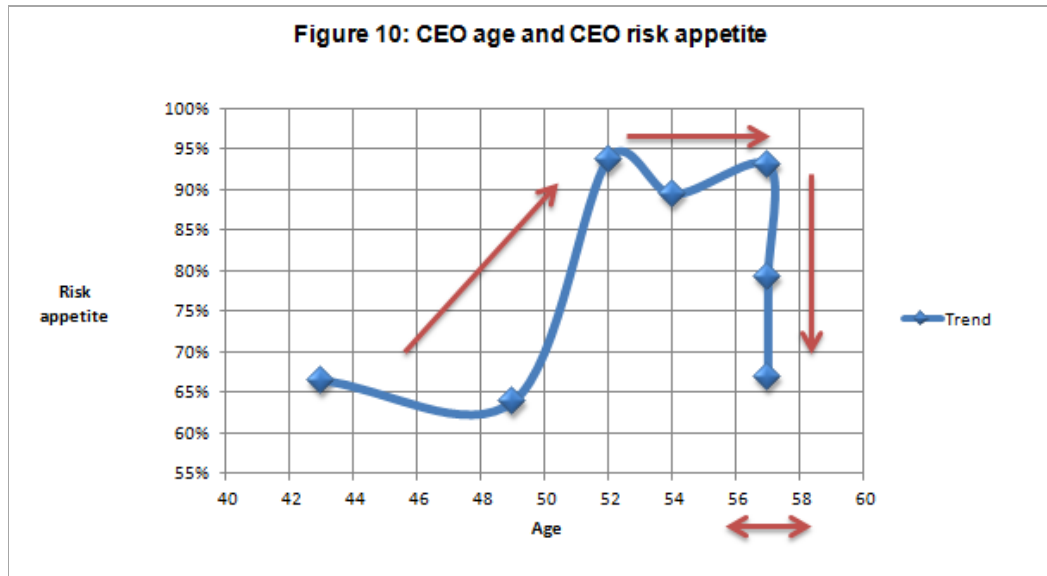
The researcher is of the opinion that the reason for a lack of trend between the two variables is as a result of the ownership that the CEOs hold in their respective organisations. In most of the organisations tested per the research performed by Chen et al. (2006) and Ross (2004), the CEOs did not hold actual stock in the organisation but instead held options which were usually settled in cash. The implication is that actual stock in the business may not be as easily convertible into cash as in the case of options, which results in a different set of behaviours by the CEOs who were evaluated under this research.

The researcher also purports that the level of ownership and the monetary value attributable to such ownership is likely to vary significantly amongst the various CEOs per the sample. Without being able to quantify these values and measure them against CEO net worth, the researcher is unable to assess whether the findings substantiate or contradict the assertion by Ross (2004) that the materiality of the value of performance based earnings (not its ratio to overall CEO wealth) will determine the direction of change in CEO risk appetite.

It is the opinion of the researcher that ownership within an organisation has more influence on a CEO's risk appetite than the extent to which earnings are performance related. This view was substantiated by CEO 3 who capped his own performance based earnings to a 13th cheque in favour of maximising company profits, in which he participated as a shareholder.

Impact of a CEO aging

The literature relating to the impact of CEO age on risk appetite postulates the existence of a linear relationship that is positive in nature (Chou et al., 2007). As indicated by Figure 10 (on the following page), the findings of the researcher do not provide any evidence to support this assertion.



Although a linear relationship between CEO age and CEO risk appetite could not be established, the researcher did identify a trend in the data collected. As indicated per Figure 10, the risk appetite of the CEOs in their 40's appears to be at a lower level than that of their over 50 year old counterparts. Also, it was noted that there appeared to be a reduction in risk appetite once a CEO reached the age of 57.

It is the opinion of the researcher is that the reason for this pattern is linked to the ownership that CEOs hold within the organisations. It is suggested that CEOs in their 40s do not feel the need to make quicker profits due to the abundance of time available to them in their careers. Whereas CEOs who have already reached 50 years of age are under more pressure to generate wealth prior to their retirement. This theory is supported by the drop-off in risk appetite by CEOs as they approach 60 years of age since they have a greater focus on their retirement and are more inclined to conserve the wealth that has already been generated.

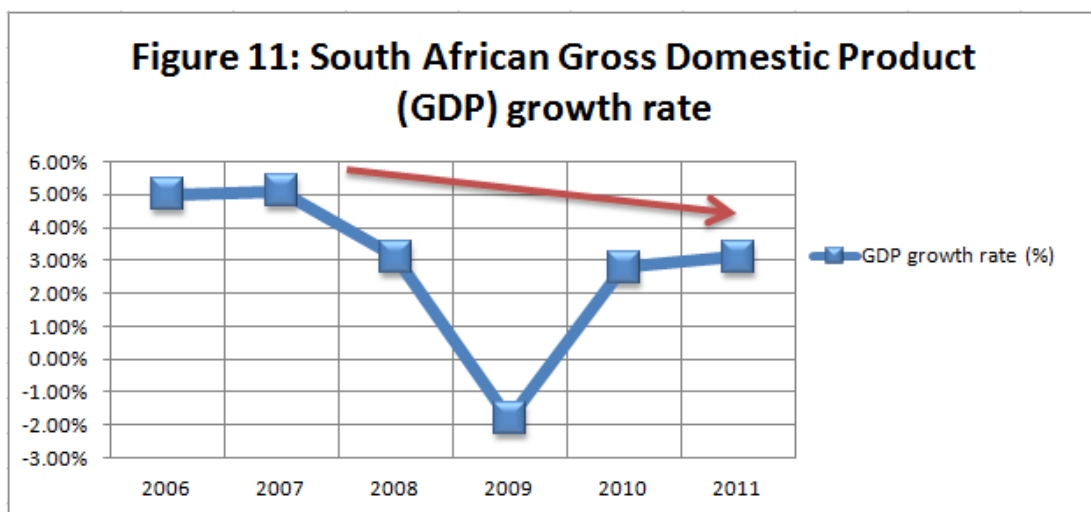
The researcher is of the opinion that the findings of the research indicate that CEO risk appetite and age are more likely to have an inverted U-shaped relationship than a linear relationship. Accordingly, the findings of this research do not confirm

those of Chou et al. (2007) with regard to the shape of the relationship, but support the literature in respect of the validity of the relationship.

Impact of the economic recession and other environmental factors

The literature pertaining to the impact of external factors on the risk appetite of CEOs indicate that external stimuli can be attributed to the changes in decision making processes of CEOs (Chatterjee & Hambrick, 2011) and that negative market conditions are likely to result in poor performance when CEOs are dominant (Haleblain & Finkelstein, 1993).

The findings of this research indicate a contradictory result as that obtained by Haleblain and Finkelstein (1993) as evidenced by the financial ratio analysis reflected on Table 7 (Chapter 5). In the 2011 financial year, the companies analysed had achieved an average growth in profits of 12.86% which significantly exceeded the growth in the Gross Domestic Product (GDP) of the country as illustrated per Figure 11 (below). The higher growth rate achieved by the companies coupled with a decreasing trend in GDP over a five year period refutes the assertion by Haleblain and Finkelstein (1993) that poorer performance of companies with dominant CEOs occurs in weaker economic environments.



Source: CIA World Factbook

The researcher is of the opinion that the proposition by Chatterjee and Hambrick (2011) better explains the performance of the companies evaluated, whereby the economic downturn can be attributed as the external stimuli that changed the decision making processes of CEOs. This change came in the form of aggressive expansion drives aimed at seizing market share from competitors who were expected to react in a more conservative manner. Based on the increased profitability by most of the organisations and the average increase in profitability of 12.86% this strategy appears to have been successful, at least in the short term.

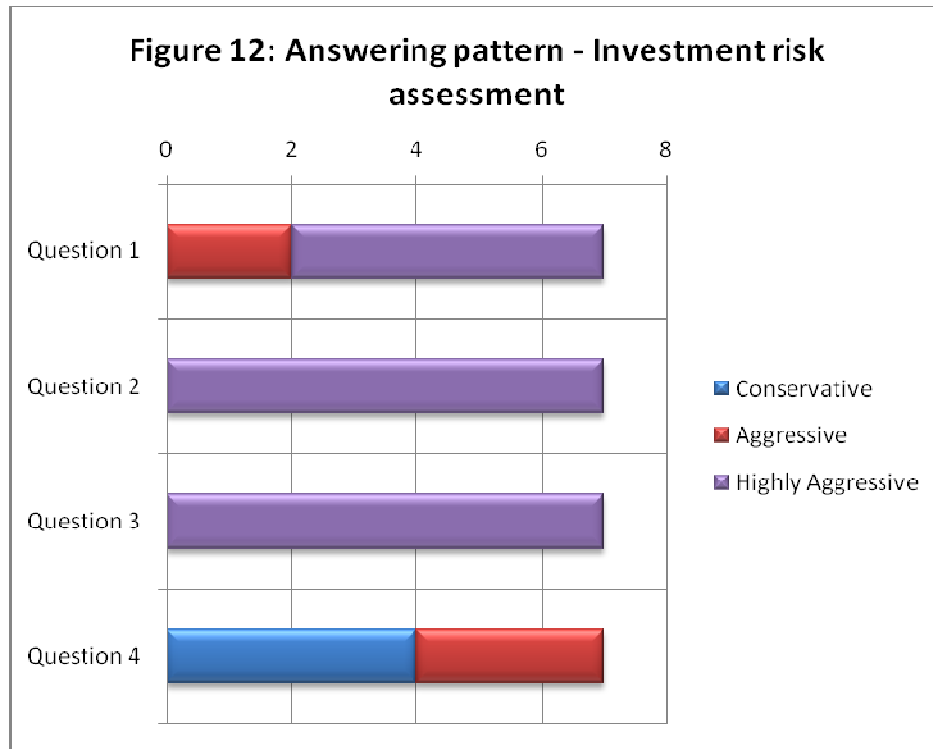
The findings indicate changes to CEO strategy as a result of the economic downturn (external stimuli), whereby five of the seven CEOs were expanding operations. This is indicative of an increase in risk appetite implying that environmental factors can be attributed to the changes in CEO risk appetite.

6.4 Interpretation of findings relating to quantitative research

Investment risk analysis

The findings of the investment risk analysis indicate a high risk appetite amongst the all the CEOs that were interviewed. As illustrated in Figure 12 (on the following page), all the CEOs chose the most highly aggressive option for both Questions 2 and 3. A similar pattern was also evident in Question 1 where five of the seven CEOs chose the most aggressive option and the remaining two selecting the moderately aggressive option.

Only Question 4 resulted in the selection of any conservative responses and a lack of highly aggressive responses, with the three CEOs who did not chose to be conservative electing to be moderately aggressive.



The researcher noted that the variation in aggression that was evidenced in Question 4 could be attributed to the introduction of a debt element in that scenario where all prior options were purely equity based. This finding contradicts the research of Parrino et al. (2005) who stipulated that the introduction of debt would increase risk appetite.

This finding indicates that CEOs are more likely to utilise high levels of risk appetite in their decision making process where there are lower levels of gearing in their organisations. This philosophy, and its contradiction with the literature, can be attributed to the stronger controls around the advancing of debt in the South African market (when compared to Europe and the U.S.A) and the high penalties imposed on those organisations failing to meet their repayment terms.

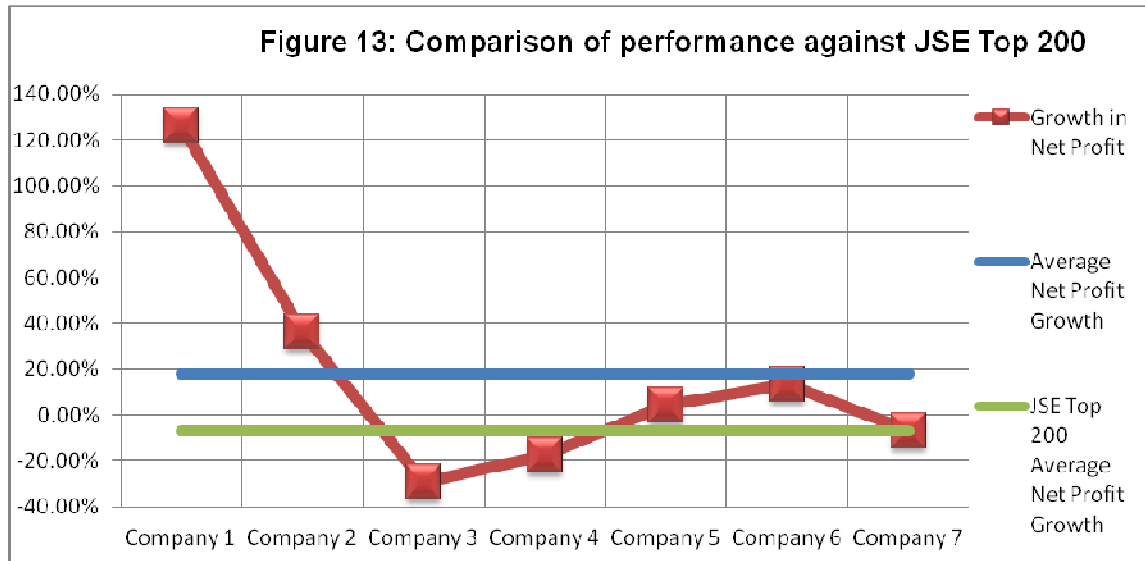
The findings illustrated in Figure 5 (Chapter 5) and in Figure 12 indicate a high appetite for investment risk across all the CEOs that were interviewed. The scores

generated per the investment evaluation were also higher than the self assessed scores indicated on Table 2 (Chapter 5) for all seven CEOs which supports the theory that the CEOs are more aggressive in the professional aspects of their lives.

Company financial information

The findings of the financial analysis reflect strong performance in all of the companies analysed. All seven companies were profitable and were solvent (assets exceeded liabilities). As indicated in Table 5 (Chapter 5), the ratio analysis that was performed on the financial records of these companies highlighted the strong performance over the past financial period, with four of the seven companies achieving growth in revenue and profitability. The three companies that reflected lower year on year revenues and profits were still profitable and achieved an average ROE of 16%, which is substantially higher than the average return achievable on a debt investment.

The extremely strong performance of the companies is demonstrated per Figure 13 (on the following page), where the growth in net profit has been benchmarked against the top 200 companies on the Johannesburg Stock Exchange (JSE). It is evident that five of the seven companies match or exceed the average growth in profitability that is achieved by the JSE top 200 companies. The average growth in profitability of the companies evaluated also exceeds the average profitability on the JSE top 200 companies by 25%. Even with the exclusion of Company 1 (which achieved an abnormal growth of 126.54%), the average growth in profitability of the companies evaluated also exceeds the average profitability on the JSE top 200 companies by 7%.



Source of JSE Top 200 data: Fin 24

6.5 Interpretation of findings relating to Research Question 2: Is CEO risk appetite positively related to company performance?

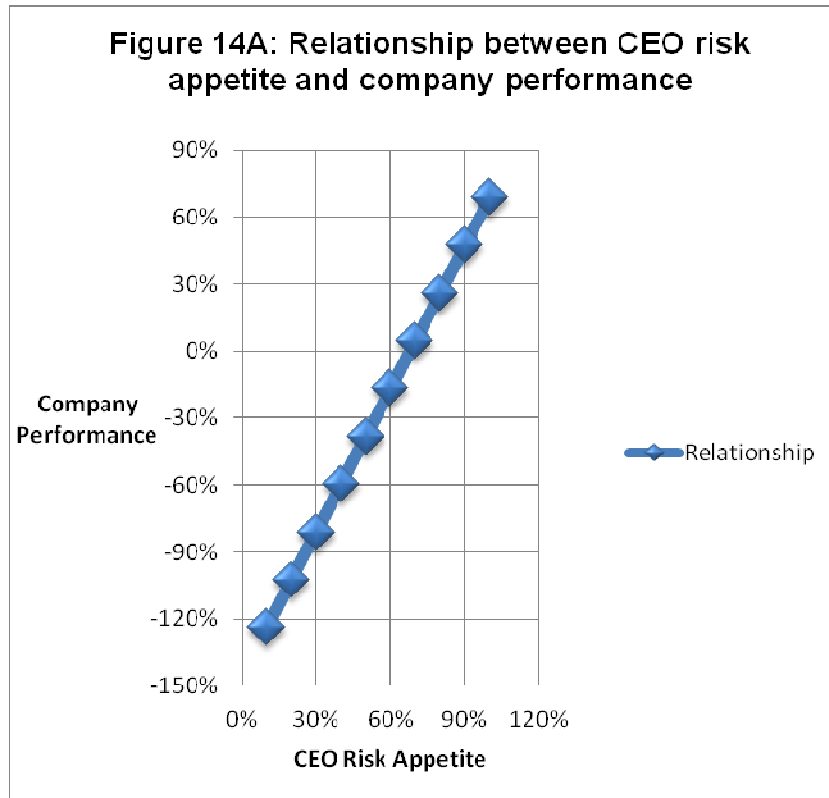
The regression analysis performed on the CEO risk appetite data and the company performance data, as summarised in Table 8A (Chapter 5), indicated that the Coefficient of Determination (R^2) was 0.568 which implied that 56.8% of the proportion of the variation in the dependant variable (i.e. company performance) could be explained by the regression model (Albright et al., 2009).

The summary table also indicated a Standard Error of Estimate (S_e) of 0.271 which implied that 27.1% was the extent of the average deviation of the 'Fitted Value' per the regression model from the actual 'Observed Value' per the data (Albright et al., 2009).

The formula for the regression model is reflected on the following page and was used to graphically demonstrate the relationship between CEO risk appetite and company performance, as per Figure 14A (on the following page).

$$Y = a + bX$$

$$\text{Company Performance} = 1.455 + 2.143(\text{CEO Risk Appetite})$$



These findings, especially the low R^2 , do not support the assertion that there is a strong relationship between CEO risk appetite and company performance. Due to the weak findings, the researcher decided to evaluate the data sets to identify any 'outliers' which could be attributed for the poor findings per the regression analysis (Albright et al., 2009).

Upon the analysis of the financial ratios, it was noted that Company 1 exhibited an exaggerated company performance index, primarily as a result of an exceedingly high return on equity ratio. When further analysing Company 1, it was identified that the high return on equity ratio was achieved via lower than normal equity levels as a result of recent dividend payments. It was also noted that the company

was funded using a higher proportion of debt than the other organisations, thus explaining the high levels of performance despite low levels of equity supply.

Due to this abnormality in the financial ratios of Company 1, an additional regression between CEO risk appetite and company performance was performed using the the data obtained from the other companies. The results of this regression, indicated in Table 8B (Chapter 5), indicated a stronger relationship between the two variables than in the original regression that included all seven samples.

The revised regression analysis performed on the on the CEO risk appetite data and the company performance data, as summarised in Table 8B (Chapter 5), indicated that the R^2 was 0.825 which implied that 82.5% of the proportion of the variation in the dependant variable (i.e. company performance) could be explained by the regression model (Albright et al., 2009).

The summary table also indicated a S_e of 0.078 which implied that 7.8% was the extent of the average deviation of the 'Fitted Value' per the regression model from the Actual 'Observed Value' per the data (Albright et al., 2009).

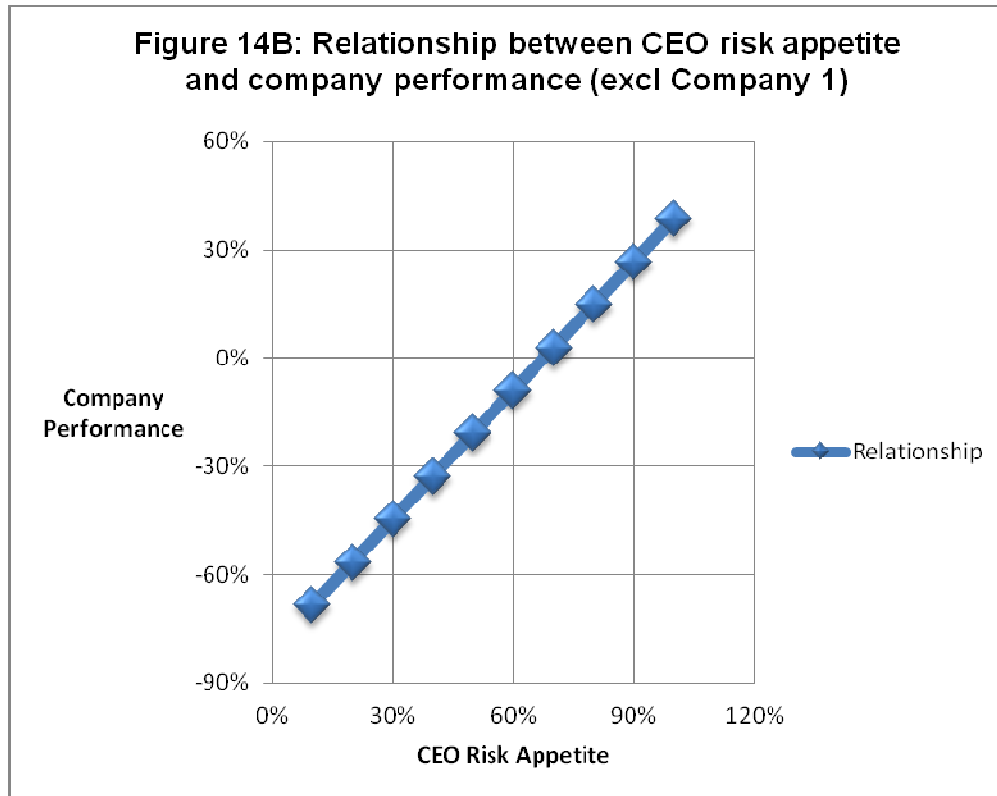
The formula for the regression model is reflected below and was used to graphically demonstrate the relationship between CEO risk appetite and company performance, per Figure 14B (on the following page).

$$Y = a + bX$$

$$\text{Company Performance} = 0.803 + 1.188(\text{CEO Risk Appetite})$$

The findings of the revised regression analysis produced substantially stronger evidence regarding the relationship between CEO risk appetite and company performance. The R^2 and S_e were within an acceptable range to infer that a

relationship did exist between the two variables and that this relationship could be explained by the model to a high degree of accuracy.



The graphical representation of the relationship per Figure 14B (above) indicates that a positive and highly proportionate relationship exists between the independent variable (CEO risk appetite) and the dependant variable (Company performance) and that the assertion per the research question is credible.

CHAPTER SEVEN: CONCLUSION AND RECOMMENDATIONS

7.1 Introduction

This chapter consolidates the work performed in the earlier chapters and provides a summary of the major findings that resulted from the research performed. This chapter also includes a section which addresses the recommendations to other researchers who may consider performing additional work within this field of research.

In addition, this chapter provides insights into whether the findings of the research complement those of the various works of literature, cited in Chapter 2, or whether alternative results were achieved. In so doing, the contributions to the existing body of knowledge on this topic will be made.

7.2 Summary of main findings

The research was able to enhance the understanding of the relationship between CEO risk appetite and company performance and in so doing, uncovered similarities and variations to the literature reviewed in Chapter 2. These findings can be summarised as follows:

- The risk appetite of a CEO is related to the size and strength of the board of directors of a company;
- The risk appetite of a CEO does not appear to be related to the proportion of performance based earnings of that CEO;
- The risk appetite of a CEO is closely related to the extent of ownership which the CEO has within an organisation;

- The age of a CEO has an inverted U-shaped relationship with that CEO's risk appetite;
- External environmental factors appear to have a substantial influence on the risk appetite of a CEO;
- The risk appetite that a CEO utilises in a business capacity exceeds the risk appetite which that CEO utilises in non business activities;
- Good company performance can be attributed to a 'hands-on' approach of its CEO;
- CEOs believe that executives have a higher appetite for risk than most ordinary people; and
- Biographical characteristics of a CEO are related to the risk appetite of that CEO.

In the process of developing these findings, the research confirmed various aspects of the literature, with the most compelling evidence supporting the studies conducted by De Andres, et al, (2008) regarding the relationship between the size of a board of directors and CEO risk appetite; and the studies conducted by Belghitar and Clark (2011) and Malemendier and Tate (2005) regarding the influence of biographical characteristics on the risk appetite of CEOs.

The research also contradicted various aspects of the literature, with the greatest departures relating to the studies conducted by Haleblain and Finkelstein (1993) regarding the direction of performance expected by an organisation with a dominant CEO in a period of economic difficulty; and the studies conducted by Chen et al. (2006) and Ross (2004) regarding the relationship between performance based incentives and CEO risk appetite.

The literature confirmations that were achieved serve to highlight the legitimacy of the relationship between risk appetite and financial performance, whereas the contradictions to the literature are more likely to emphasise the complexity of this

discipline than to refute any prior findings. Due to the substantial nuances that exist, in respect of the type of organisations, the type of CEOs, the prevailing economic conditions and the availability of information, a high degree of variation in results is likely to occur when assessments of this nature are performed.

In addition to these findings, the research was also able to demonstrate the existence of a positive linear relationship between CEO risk appetite and company performance. This confirmation was obtained through the completion of a regression analysis that yielded a strong correlation with a R^2 of 0.825 being achieved. These findings indicate a successful determination of the relationships that were postulated in the research questions.

7.3 Recommendations for future research

The findings of the research into the relationship between CEO risk appetite and company performance indicated significant confirmations of the prior research in this area while also noting a substantial amount of deviations to the literature findings. As such, the work performed cannot be regarded as exhaustive or conclusive for every possible circumstance which may exist.

Furthermore, the research that was performed had been done within tight parameters to identify a practical population and to facilitate access to the organisations and their respective CEOs. As such, there is need for further research to verify whether these findings are representative of all companies and CEOs within South Africa.

The additional aspects that are recommended for consideration regarding any future research undertaken within this field of study are discussed in the subsequent paragraphs.

Wider demographic of CEOs

When selecting the sample of organisations and CEOs for the study, the researcher should select a sample of individuals who are representative of the area in which the findings are meant to apply. As such, a selection of CEOs should include participants that are female and who represent all major ethnicities within South Africa.

Variation in ownership status amongst CEOs

The researcher should select a sample in which there are CEOs that both participate in and are excluded from ownership of their organisations.

Listing status of companies

The samples selected for future research should include a mix of listed and unlisted organisations to be more representative of the business community within South Africa.

Geographical spread

The researcher should attempt to select a sample that includes companies from all regions within the country to ensure a wider representation is achieved by the research.

Interviews should include other executives

To achieve a deeper understanding of the complexities of the organisation and the management dynamic, the interview process should involve interviewing an additional executive. This will allow for the collection of independent data to evaluate the CEO and corroborate all the responses obtained from the CEO.

If these aspects can be incorporated into future research, the findings that are generated are likely to be completely representative of the South African business community.

7.4 Conclusion

The objective of this research was to evaluate the relationship between a CEO's risk appetite and the performance of the company for which such a CEO is responsible. The findings have shown that a correlation does exist between CEO risk appetite and company performance and that the relationship is both linear and positive.

The results obtained also highlight that certain factors have a more significant influence on the development of a CEO's risk appetite and that the differences noted between the various works of literature can be attributable to situational variations.

The significance of the findings that were revealed per the study indicates a strong possibility for the use of this research in the formulation of risk strategies by organisations, thus ensuring that CEO risk appetite is appropriately managed.

It is also envisaged the findings relating to the factors that contribute to the formulation of a CEO's risk appetite can be used by organisations during their CEO recruitment processes. This will allow organisations to more accurately identify candidates who best fit the intended risk profile of the organisation.

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APPENDICES

Appendix I: Consistency Matrix

Question Number	Research Question	Literature Review	Data Collection	Analysis	Results
Research Question 1	What factors contribute to the intensity of a CEO's risk appetite?	Pathan (2009); Chatterjee and Hambrick (2011); Belghitar and Clark (2011); Chen, Steiner and Whyte (2006).	Semi-structured interview guided by the interview schedule outlined in Appendix III.	Content analysis	Table 1; Table 2; Figure 1; Figure 2; Figure 3; Figure 4.
Research Question 2	Is CEO risk appetite positively related to company performance?	Almajali (2012); Malikova and Brabec (2011).	Semi-structured interview guided by the interview schedule outlined in Appendix III; Collection of secondary data (company financial records)	Descriptive statistics	Table 8A; Table 8B.

Appendix II: Informed Consent Letter

I am conducting research on the extent to which CEO risk appetite influences company performance. Our interview is expected to last about an hour, and will help us understand how CEO risk appetite impacts company performance. Your participation is voluntary and you can withdraw at any time without penalty. Of course, all data will be kept confidential. If you have any concerns, please contact me or my supervisor. Our details are provided below.

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Phone: +27 11 771 4125

Regards



Ashley Govender

Appendix III: Sample questions for semi structured interview

1. Biographical Characteristics

- 1.1. What is your age?
- 1.2. Where were you born? (Country/Province/City)
- 1.3. What is your ethnicity?
- 1.4. What is your educational history?
- 1.5. What is your employment background? Please specify previous employers and titles held?
- 1.6. How many years have you been in your current role?

2. Business Specific Questions

- 2.1. How many directors are currently appointed to the board of your company? Of these how many are non executive?
- 2.2. Does your organisation favour the use of performance based incentives? Why?
- 2.3. What is the approximate the percentage of your earnings that is performance related?

- 2.4. Do you think that performance based incentives increases or decreases risk taking behaviour? Please elaborate.
- 2.5. Are decisions made by a group such as the board of directors or by an individual such as a project leader? Why?
- 2.6. Do you feel that you are more aggressive in your decision making at present or earlier in your career? Why?
- 2.7. Rate your risk appetite on a 10 point scale, with 10 being the maximum.
- 2.8. Do you have an ownership stake within the organisation?
- 2.9. Has the business strategy since the onset of the recession been to downsize, sustain or expand?

3. Scientific Risk assessment – Investment Risk Appetite

- 3.1. Your stock market investment loses 15 per cent of its value in a market correction a month after you buy it. Assuming that none of the fundamentals have changed do you:
 - a. Hold and wait for it to journey back up?
 - b. Sell it and rid yourself of further sleepless nights if it continues to decline?
 - c. Buy more - if it looked good at the original price it looks even better now?
 - d. You would not buy market linked investments in the first place.
- 3.2. Which would you have rather done?

- a. Invested in an aggressive growth fund which appreciated very little in six months.
- b. Invested in a money-market fund only to see the aggressive growth fund you were thinking about double in value in six months?
- c. Only Invest in long-term government bonds.

3.3. Would you feel better if?

- a. You doubled your money in an equity investment?
- b. Your money-market fund saved you from losing half your money in a market slide?
- c. Your money was kept on call to allow for immediate access

3.4. Its 2015, and inflation is returning. Hard assets such as precious metals, collectibles, and real estate are expected to keep pace with inflation. Your assets are now all in long-term bonds. What would you do?

- a. Hold the bonds?
- b. Sell the bonds, and put half the proceeds into money funds and the other half into hard assets
- c. Sell the bonds and put the total proceeds into hard assets?
- d. Sell the bonds, put all the money into hard assets, and borrow additional money to buy more?

Appendix IV: Permission to collect research data template



Permission to collect research data:

I hereby grant permission to Ashley Govender to access the accounting records of the Company indicated below for the GIBS MBA research project titled 'The Extent to which CEO Risk Appetite Influences Company Performance'. I am duly authorised by the Company to grant this permission.

Name of Company / Organisation	
Name and Surname	
Job Title	
Signature	
Date	