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Executive director remuneration, company performance and executive director profiles for South African companies listed on the Johannesburg Stock Exchange (JSE)

Research thesis submitted by Minal Naik in partial fulfilment (50%) of the Degree of Master of Commerce

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DECLARATION

I declare that this research report is my own original work and that all sources have been accurately reported and acknowledged. The report is submitted for the degree of Master of Commerce at the University of Witwatersrand, Johannesburg. This research study has not been submitted for any degree or examination at this or any other university.

_____ _____

Minal Naik Date

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List of Abbreviations

GFC	Global financial crises
USA	United States of America
UK	United Kingdom
RSA	Republic of South Africa
JSE	Johannesburg Stock Exchange
IOD	Institute of Directors
IFRS	International Financial Reporting Standards
ROA	Return on Assets
CV	Coefficient of Variance
IV	Independent Variable
DV	Dependent Variable
GLM	General Linear Model
Bcom	Bachelor of Commerce
BSc	Bachelor of Sciences
LLB	Legum Baccalaureus
BA	Bachelor of Arts
MBA	Master's in Business Administration
CFA	Charted Financial Analyst
Phd	Doctor of Philosophy
CA	Charted Accountant

ABSTRACT

Executive remuneration has been under intense scrutiny by both investors and the media over the past 10 to 20 years because of the increasing magnitude of these remuneration packages (Otten, 2007; Sapp, 2007). This research report explores the relationship between executive director remuneration and the performance of publically listed companies (JSE) in South Africa, as well as ascertaining whether any relationship exists between director profiles and director remuneration.

The study population comprised all South African companies listed on the JSE during 2014. The final sample consisted of 49 companies after the transformation of the data. A total of 708 director profiles were examined. The results of the study appeared to indicate a lack of correlation between executive director remuneration and company performance in publically listed South African companies. On the other hand, the results of the regression provided empirical support for the existence of a significant positive relationship between director remuneration and total assets.

The results also illustrated that, in general, directors who are male over the age of 50 and who have served as directors for periods of between six to 10 years receive higher total remuneration compared to other classes of directors. It was also noted that race appeared not to play a role in director remuneration.

Key words: Executive director remuneration, executive director profiles, company performance, ROA, Tobin's Q

CHAPTER I

Introduction

1.1 Background

In recent years, there have been very few issues that have elicited as much ongoing controversy in the world as the issue of executive remuneration (De Wet, 2012; Otten 2007). The global financial crises (GFC) have borne witness to several notable collapses in the corporate industry (Nelson, Gallery and Reza, 2011). Elstone (2008) mentions that economists believe that the recent economic downturn is the worst financial crisis since the Great Depression of the 1930s. Consequently, the economic downturn has spurred the media on to pay more attention to the ongoing increases in executive remuneration (Nelson et al., 2011; Sapp, 2007, Otten, 2007). There has been much research conducted in this area. However, the focus of the research has been the United States of America (USA), Canada, the United Kingdom (UK) and Europe (De Wet, 2012).

The following statements highlight this interest in executive remuneration: “CEOs getting staggering pay despite big problems at their companies” (Colvin, 2008). “Where has the link gone between performance and pay?” (Trump, 2005). “Company directors and executives are self-interested actors, using their position in the company to pursue their own ends rather than being focused on pursuing what is best for the company” (McConvill, 2005). Colvin (2008) further mentions that, in general, the remuneration of CEOs is staggeringly high despite the severe problems being experienced by their companies and the need for compensation to be aligned to performance.

McConvill (2005) explains that the large compensation packages of many companies which have collapsed, including companies, such as the US insurance company Fannie Mae, WorldCom and Enron, to name a few, has heightened the scrutiny of both investors and media. These compensation packages are also important because their structure determines the executives' "incentives and thus influences how the company will be operated" (Sapp, 2007).

A recent publication by Deloitte (2014) indicated that the remuneration of directors is increasingly one of the most hotly debated topics in the corporate governance arena. This is primarily the result of certain infamous recent examples of company collapses as mentioned earlier and the subsequent tension between directors and shareholders, with the latter demanding to understand and to be able to rationalise their directors' remuneration levels and methods of remuneration while, on the other hand, the directors wish their financial affairs to remain private (Deloitte, 2014). This debate also focuses on the levels of quality, especially in publically traded companies (Fernandes, 2005).

In general, directors tend to raise several issues relating to the disclosure of the reasons for the various compensation packages paid to their respective executives (Otten, 2007). As a result, there is a growing perception of company directors as self-interested actors (Nelson et al., 2011; Scholtz and Smit, 2012), with shareholders believing that directors are using their positions in the company to pursue their own needs rather than focusing on the best interests of the company (McConvill, 2005).

Woodburn (2008) highlighted the prevailing belief that it is the role of the executive directors of a company to create growth and generate profits for the shareholders. However, shareholders then often ask the question as to whether, if executives fail to create value and profits, should they be entitled to a salary increase and performance-related remuneration (Woodburn, 2008).

Ghosh (2003) mentions that the issues of board structure, executive compensation and company performance have been discussed in detail in both the theoretical and the empirical literature, although the effect of the size and composition of the board on company performance is a debatable issue. In their article, Cooper, Gulen and Rau (2009) mention the following: firstly, politicians and the media had argued that the executive compensation practices have been pushing employees to take short-term risks with little regard for the long-term effect of such risks on their companies. Secondly, recent regulatory proposals had been proposed, for example, that more pay be offered in the form of restricted stock or other forms of long-term compensation designed not to reward short-term performance. Finally, long-term compensation plans offer incentives to executives to act in the best interests of shareholders in the future, to the extent that markets do not fully incorporate pay information when it is made public.

The correlation between the way in which executives are remunerated and whether that remuneration is in line with company performance has, thus, become a controversial topic worldwide, including in South Africa (Bradley, 2013). De Wet (2012) mentions that the directors of top South African companies are receiving bonuses even when the profits are decreasing by substantial margins. However, the

introduction in the King III report in 2009, which requires that companies adopt remuneration policies over the long term, may help to bridge this gap (Scholtz and Smit, 2012; IOD, 2009).

1.2 Corporate governance issues in South Africa

An agency relationship, defined by Jensen and Meckling (1976), as "as a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent, allows managers to indulge in opportunistic behaviour that serves their own interests and not necessarily those of shareholders, while suggesting that executives may build and increase the size of the firm because of the power and prestige related to managing a large firm. Accordingly, corporate governance is concerned with how best to reduce the opportunistic behaviour of executives (Amess and Drake, 2003).

Executive remuneration is a device, which owners may potentially use to create financial incentives for executives to reduce their opportunistic behaviour. Ideally, an employment contract should stipulate that the executive remuneration is equal to the marginal product of labour. Company profitability is, however, a consequence of both managerial effort and several external factors that are outside the executives' control. It is, thus, not always possible to determine the effort put in by the executives involved accurately by merely taking into account company profits. In other words, the formulation of employment contracts is often problematic due to the difficulties associated with unforeseen contingencies and the principal–agent problem (Jensen and Murphy, 1990).

The board of directors of a company is the main internal control mechanism through which shareholders are able to control managers. In view of the problems associated with a dispersed ownership structure, this internal control mechanism is particularly important for creating transparency and bridging the agent–principal gap (Shleifer and Vishny, 1997). It is the board's role to examine the highest decision-makers, usually executive directors, in the organisation and, thus, the board plays a vital role in ensuring that the executive directors of a company fulfil their fiduciary duty to the owners. It is often argued that although the executive directors have a fiduciary duty to protect the owners' interests, if they do not have any financial interest in the company and they stand to gain little from the performance gains the company makes, they may not fulfil this fiduciary duty (Amess and Drake, 2003).

The discussions on executive remuneration in South Africa have been dominated by the widening income inequality between executives and ordinary workers, particularly in the South African mining industry, which is facing a challenging time. The discussions on the mining industry have been fuelled primarily by media reports on perceived pay for no performance and the alleged link between excessive executive compensation and instability in the sector (Theku, 2010). Questions have been asked as to whether the level of the salary disparity between executives and the lowest paid workers in the mining industry has negatively affected company performance. This is mainly because of the fact that the high-income inequality is broadly seen as the catalyst for labour disputes which usually result in a loss of production time (Steyn, 2013).

According to Blair (2014), many measures may be used to manage executive

remuneration and general business conduct in South Africa environment in order to ensure both sound practices and sustainability. One of the main regulatory measures aimed at ensuring good corporate governance is the King Ill code on executive remuneration, which was introduced by the IOD in 2009. The main purpose of this code is to provide the business community with the requirements for integrated business reporting (IOD, 2009).

The King III report on corporate governance in South Africa was deemed to be necessary because of the new Companies Act 71 of 2008 (the Act) and changes in international governance trends (IOD, 2009). Foreign investors regard listed companies in South Africa as ranking among the best governed in the world's emerging economies. It is essential that the country strive to maintain this high ranking (IOD, 2009). As was evident in the significant capital inflows into South Africa before the global financial crisis of 2008, the South Africa's economy has benefited significantly from the fact that its listed companies adhere to sound governance principles and practices (IOD, 2009).

King III is a report that builds on the pertinent issues raised by King I and King II. However, the report also discusses the inclusion of issues such as sustainability, governance, the role and function of the audit committee, stakeholder relationships, compliance with laws and regulations and integrated reporting (IOD, 2009). King III notes that the board of directors should be responsible for the affairs of the company by determining the company's strategic direction in a lawful and efficient manner in such a way as to ensure that the company is constantly improving its value creation and performance (IOD, 2009).

In addition, the board should ensure that the value being created is shared with the shareholders and employees with due regard to the interests of other stakeholders (IOD, 2009). In order to carry out these responsibilities the board must ensure the integrity of the financial controls and reports while also ensuring that the ethical standards of the company are maintained and that the company complies with the laws of South Africa (IOD, 2009).

Principle 2.18 of the King III Report and section 66(2)(b) of the Companies Act 2008 recommend that the composition of the board of directors should include a balance of power, a mix of executive and independent non-executive directors and a majority of independent non-executive directors (IOD, 2012). King III further recommends that the board should be composed in such a way as to ensure a diversity of experience without compromising the integrity, compatibility, availability and independence of the board (IOD, 2012). The introduction of King III created a need for further research into the relationship between executive director remuneration and company performance (Scholtz and Smit, 2012).

1.3 Statement of the research problem

The debate on inflated sums being paid to CEOs is not new, as shareholders expect executive directors, who are paid high salaries to perform, prove their worth and grow the company (Tariq, 2010). There have been several steps taken to reduce the widening gap between executive director remuneration and company performance. These steps include the introduction of the Greenbury report in 1995 in the UK and the Sarbanes-Oxley Act of 2002 in the USA (Tariq, 2010). Scholtz and Smit (2012) suggest that the pay–performance link may have become even stronger after the

introduction of King III in 2009 as the report requires that companies must adopt remuneration policies over the long term in order to try to bridge the remuneration and the transparency of how executive directors are remunerated in South Africa.

1.4 Research question

The main research question is as follows: Is there a significant positive relationship between executive director remuneration and the company performance of publically listed companies in South Africa (JSE)?

The abovementioned research question was the main focal point of the study, although further sub-questions were formulated with a view to further investigating the relationships between executive director profiles and executive director remuneration. These profiles include categories such as age, race, gender, educational qualifications, tenure and meeting attendance. These sub-questions are further explained in chapter 3 of this report.

1.5 Purpose of the study

The purpose of this report was to explore the relationship between the remuneration of the executive directors of listed companies in South Africa and company performance and to investigate the link between executive director profiles and executive director remuneration. The relationship between executive directors' remuneration and company performance was analysed using data drawn from South African companies listed on the Johannesburg Stock Exchange (JSE). Performance measures such as Tobin's Q, return on assets (ROA), total assets and revenue in the South African context were used.

1.6 Significance of the study

The significance of this study lies within the South African context. The study attempted to analyse the relationship between the executive director remuneration and company performance for all the companies listed on the JSE. In similar studies, Bradley (2013), De Wet (2012), Scholtz, and Smit (2012) limited their studies to certain industries listed on either the JSE or the Alternative Exchange (AltX) in South Africa.

These recent studies found several contradictory results. The study conducted by Bradley (2013) in South Africa found no correlation between CEO compensation and company performance, thus suggesting that attempts to align the interests of managers and shareholders through executive pay in South Africa have so far been unsuccessful. Bradley (2013) also suggested that companies that attempt to use executive pay as a method of mitigating the conflict of interest that exists between managers and shareholders should consider their approach carefully. In fact, it may be necessary for companies either to change their pay structure or to consider alternative means in order to align the interests of managers and investors (Bradley, 2013).

On the other hand, a study conducted by Scholtz and Smit (2012) found evidence of a strong relationship between executive remuneration and certain company performance indicators, such as the total assets, turnover and share price for companies listed on the AltX. De Wet (2012) also found strong evidence of a significant relationship between executive remuneration and company performance.

This report seeks to contribute to the existing body of knowledge in three ways. Firstly, the measure of remuneration employed included salaries, profit-related-pay, bonuses, benefits and options as disclosed. In their studies, De Wet (2012) and Scholtz and Smit (2012) ignored options. The inclusion of these additional components was deemed important for the purposes of this study because they may be used to align the interests of managers with those of the owners. Secondly, the study explored the relationship between the executive remuneration and company performance of all companies listed on the JSE. Finally, the study also investigated the relationship between executive director remuneration and executive director profiles.

1.7 Layout of the study

This chapter clarified the issue of director remuneration. It also stated the research problem, the purpose of the research study given the limitations of previous research in the field, the significance of the study in South Africa and the main research question addressed in the study. The rest of the report is organised as follows:

Chapter 2 contains a discussion of the relevant literature. The purpose of the literature review is to provide a foundation for the study as well as to highlight the relevance of companies aligning their director remuneration with company performance.

Chapter 3 expands on the main research question and further explains the sub-questions developed for the purposes of the study. The chapter further describes the methodology used in the study, discusses the methods of data collection used, the

process of data analysis and the key variables used in the study. The latter part of the chapter explains the validity and reliability of the data used, as well as the assumptions, limitations and delimitations of the study.

Chapter 4 discusses the research results relating to executive director remuneration and company performance, as well as to the relationship between executive director profiles and executive director remuneration.

Chapter 5 summaries' the study and the research questions, while providing conclusions to the research questions. The chapter further provides and recommendations for future research into this field.

CHAPTER 2

Literature Review

2.1 Introduction

Investopedia (2015) defines Corporate governance as:

> … the system of rules, practices and processes by which a company is directed and controlled. Corporate governance essentially involves balancing the interests of the many stakeholders in a company – these include its shareholders, management, customers, suppliers, financiers, government and the community. Since corporate governance also provides the framework for attaining a company's objectives, it encompasses practically every sphere of management, from action plans and internal controls to performance measurement and corporate disclosure.

According to Shleifer and Vishny (1997), corporate governance determines the ways in which the suppliers of finance to corporations assure themselves of receiving a return on their investment. On the other hand, Maradi, Navi and Dasar (2015) define corporate governance is a process that aims to allocate corporate resources in a manner that maximises value for all stakeholders, employees, customers, suppliers, the environment and the community at large. They further define corporate governance as the set of processes, customs, policies, laws and institutions affecting the way in which a company is directed, administered or controlled. Corporate governance also refers to the relationships between the many stakeholders involved and the goals in terms of which the corporation is governed.

Sheng (2000) defines corporate governance as a means to ensure the accountability

of certain individuals in an organisation through mechanisms that endeavour to reduce or eliminate the principal–agent problem. This definition is most apt for this research study as it links corporate governance to agency theory. Jensen and Meckling (1976) stated that one of the key objectives of modern corporate governance is to address agency problems. The following sections contain an overview of agency theory as well as the literature consulted on director remuneration and firm performance.

2.2 Agency theory, executive pay and the link to company performance

Executive compensation refers to the main financial rewards and benefits that are granted to executives in exchange for their contribution to the company. The main aim of executive remuneration is to maximise shareholder value by effectively rewarding, motivating and retaining valuable senior management in the company (Shaw and Zhang, 2010). Scholtz and Smit (2012) highlighted that the structure of executive remuneration has changed considerably over time, while Crowley (2013) stated that CEO salaries had been increasing at an exceedingly high rate, while dividends per share over the same period had decreased significantly. These researchers point out that research has been conducted only into whether executive remuneration is an effective way of aligning the interests of shareholders and executive directors.

Agency theory was formulated by Jensen and Meckling (1976). They explain that agency theory is an instrument that may be used to alleviate agency problems, defined as “a conflict of interest inherent in any relationship where one party is expected to act in another's best interests” by Jensen and Meckling (1976). On the

other hand, executive pay is an instrument, which is used to align the interests of shareholders and management (Bebchuk and Fried, 2004). Deegan (2009) provides evidence that, for example, the market for managers provides incentives for managers to work in the best interests of the owners.

Agency theory is extremely important, as the introduction of the KING III report and Code of Governance in South Africa; companies are now required to disclose their directors' remuneration in their financial statements. In addition, companies are also required to put in place remuneration committees to assist with setting remuneration packages in place, as stakeholders are now more interested in the fairness surrounding directors' remuneration than ever before (IOD, 2009).

Agency theory has been used many times to explain the relationship between CEO remuneration and company performance. However, the predominant use of this theory has led researchers into a so-called "blind alley" (Barkema and Gomez-Mejia, 1998; Ebert, Torres and Papadakis, 2008). Almost all the research on the relationship between executive pay and company financial performance has been based on regression models that take into account a number of different economic variables (Ebert et al., 2008; Cheng, Lui, Shum and Wong, 2011, Nelson et al., 2011). Merhebi, Pattenden, Swan and Zhou (2006) explained how empirical evidence is consistent with the agency theory view of compensation, thus confirming that executive pay is positively correlated with company performance.

2.3 Corporate governance and executive remuneration

The issue of the increasing magnitude of executive compensation and the weak

relationship between executive compensation and company performance have been receiving increasing attention globally (Sapp, 2007). However, according to Theku (2014), the role of corporate governance as an effective oversight mechanism, entrusted with ensuring correct management activities, which are in the best interests of shareholders, has always been criticised.

In recent years, market forces have been assumed to lead to optimal pay levels and structures. This implies that executives are compensated for the risks they are willing to take in order to manage their companies in the best interests of their shareholders (Otten, 2007). Accordingly, many academic writers have now suggested that a number of relationships exist between corporate governance-related factors and executive compensation (Sapp, 2007; Nelson et al., 2011).

In the early 1990s it was found that directors' packages were not in line with their performance in the company (Conyon, 1997). During 2008 and 2009, the global financial crisis (GFC) raised concerns with regard to the strong growth in director remuneration packages despite poor company performance (Australia, 2009). Nelson et al. (2011) suggest that these remuneration packages had increased due to the fact the directors were required to take excessive risks and to enhance their decision-making capabilities.

Core and Guay (2010) propose that the GFC may have occurred because of director remuneration structures offering either too few or too many incentives. These factors then raised significant concerns on the part of investors regarding director remuneration (Conyon, 1997). It was felt that remuneration packages should be set

at a level that is adequate in order to attract and retain directors with the competency that is required to ensure the company is successful. However, companies should avoid paying more than the amount required (Cheng et al., 2011).

The King Report on Corporate Governance is currently the most important regulation in terms of corporate governance in South Africa. Subsequent to the Cadbury Report (European Corporate Governance Institute, 1992), which was released in Britain, the King Report on Corporate Governance 1994 (King I) was released in South Africa in November 1994 (Malherbe and Segal, 2001). It has been pointed out that King I made the public aware of the importance of good corporate governance, with one of the areas of specific focus being the need for appropriate board structures (Malherbe and Segal, 2001).

The King committee had to ensure that the legislation catered appropriately for the South African labour market and, consequently, the committee needed to take cognisance of the unique characteristics of the country following the fall of the apartheid regime. During the apartheid regime, the South African labour market was characterised by inequalities in employment, occupation and income because of apartheid laws and other discriminatory rulings (IOD, 2009).

In 1998 the Employment Equity Act no. 55 was passed. This Act specifically prohibits unfair discrimination on the grounds of, among others, race, gender and age, with the aim of achieving employment equity. Designated employers are required to put affirmative action measures in place in order to create equal opportunities for suitably qualified people from designated groups and to strive for equitable

representation of these groups in all categories and levels within the workplace. Designated groups include black people (defined as Africans, coloureds and Indians), women and people with disabilities (RSA, 1998).

The King Report on Governance for South Africa was issued in 2009 (King III). The report took into account the Companies Act no. 71 of 2008, as well as developments in international governance. King III adopts a voluntary basis for governance compliance (IOD, 2009).

The introduction of the King III Report on corporate governance created a requirement disclosure for salary and performance-related elements, including an explanation of the basis on which remuneration is to be measured. It will, thus, become increasingly difficult for executive directors not to be remunerated according to performance (IOD, 2009).

2.4 King III, corporate governance and the Johannesburg Stock Exchange

The King Reports on corporate governance, namely, King I (1994), King II (2002) and King III (2009), all addressed, among other things, the issue of executive remuneration. The guide to the application of King III (2012) practice notes states that companies should adopt remuneration policies and practices for executives that create value for the company over the long term. In addition, these policies should be in line with the company's strategy, they should be reviewed regularly and they should be linked to the executives' contribution to company performance. The guide further states that those factors that affect company performance, but which are beyond the control of executives, should be considered, albeit to a limited extent

(King III, 2012).

Furthermore, a remuneration committee should be set in place to assist the board in formulating and administering remuneration policies. The committee should be directly concerned with the remuneration of senior executives and executive directors, while it should also be able to provide advice on the remuneration of non-executive directors. The remuneration committee should review the remuneration policies on an annual basis to ensure that these policies are in line with company performance. The committee should also ensure that executives are not gaining inappropriately as this tends to affect shareholder value (King III, 2012). The King III Report also suggests that shareholders must approve the remuneration policy of a company, as this will increase the accountability of executive directors to shareholders. The report further recommends that remuneration committees, consisting of non-executive directors, be established to determine and monitor executive remuneration (IOD, 2009).

Paragraph 71 of King III states:

> "Every board should consider whether its size, diversity and demographics make it effective. Diversity applies to academic qualifications, technical expertise, relevant industry knowledge, experience, nationality, age, race and gender (IOD, 2009:33)."

Principles 2.25 to 2.27 of King III state:

> "Companies should remunerate directors and executives fairly and responsibly, companies should disclose the remuneration of each individual

director and certain senior executives and lastly, shareholders should approve the company's remuneration policy (IOD, 2009)."

In the past few years, there has been an increase for research conducted on executive remuneration. However, there appears to be no real conclusion on the extent of the problem and whether there is any relation between executive remuneration and company performance. Accordingly, this report examines the executive compensation of companies listed on the JSE and whether the link between executive remuneration and company performance has been strengthened since the introduction of King III (IOD, 2009).

Table 2.1, adapted from Scholtz and Smit (2012), presents the corporate governance requirements relating to executive remuneration for directors and senior executives, according to King I and King II. King III also requires the specific disclosure of the remuneration paid to each director in terms of the Companies Act. Compliance with the King II Report was required for the companies, which made up the sample used in this study. Since the implementation of the 2008, Companies Act compliance with King III has now also become a requirement (Scholtz and Smit, 2012).

Table 2.1: Corporate governance requirements of King II and King III relating to executive remuneration

King II	King III
Performance-related remuneration	
Performance-related elements of remuneration should constitute a substantial portion of the total remuneration of executives.	Short-term and long-term performance-related awards must be fair and achievable.
Remuneration policies	
There should be a formal and transparent procedure for developing a policy on director and executive remuneration. This should be supported by a statement of remuneration philosophy in the annual report.	Remuneration policies that create value for the company over the long term should be implemented. The remuneration committee should assist the board in setting up and administering remuneration policies. The company's remuneration policy should be tabled to shareholders for a non-binding advisory vote at the annual general meeting.
Annual bonuses	
	Annual bonuses should be reviewed regularly to ensure that they are objective. Annual bonuses should relate to performance against annual objectives and be consistent with long-term value for shareholders.
Share-based payments	

	Participation in the share option scheme should be restricted to employees and executive directors.
	The chairman and other non-executive directors should not receive share options or other incentive awards geared to share price or corporate performance.
	Vesting of rights (in cash or shares) should be based on performance conditions measured over a period appropriate to the strategic objectives of the company. The period of measurement should not be less than three years. Where performance conditions are not met, these conditions should be retested in subsequent periods before share options are awarded. Regular annual grants of share-based awards are desirable.

With the implementation of the King reports, more specifically King III, it was expected that there would be a closer link between company performance and executive remuneration than before. The disclosure requirements relating to executive remuneration, as required by the Companies Act no. 71 of 2008 and in accordance with the JSE listing requirements, are contained in Table 2.2, as adapted from Scholtz and Smit (2012).

Table 2.2: Disclosure of executive remuneration in terms of the Companies Act 2008 and the JSE listing requirements

Companies Act 2008	JSE listing requirements
The following must be disclosed separately: Remuneration Benefits Pensions Payments to pension funds on behalf thereof Compensation for loss of office Securities issued and Service contracts. **Remuneration includes:** Directors' fees for services to or on behalf of the company, Salary, bonuses and performance-related payments, Expense allowances for which the director need not account,	Disclosure should be made of each individual director's emoluments, including directors who have resigned. An analysis in aggregate and by director of emoluments paid for the current financial year as well as the preceding financial year, distinguishing between executive and non-executive directors: Fees for the services as director Management, consulting, technical or other fees Basic salary Bonuses and performance-related payments Sums paid by way of expense allowances Any other material benefits received Contributions to pension funds and commission, gain or profit-sharing arrangements.
Contributions to any pension scheme not otherwise needing separate disclosure, Options or rights given directly or indirectly, Financial assistance for the subscription of options or securities or the purchase of securities, and Any loans and any other financial assistance. Remuneration and benefits must be shown for:	

Services as director of the reporting company, and All other services while acting as a director of the reporting company.	

2.5 Link between company performance and executive remuneration

The structural design of executive compensation is extremely challenging as, in general, managers are non-risk-taking wealth maximises (Noe, 2009). Noe (2009) also states that the individual marginal productivity and ability to make sound business decisions of executive directors, as measured by the results of their decisions, are paramount in the executive director compensation design.

Numerous articles dating back to the early 1900s have been published on company performance and executive remuneration. Conyon (1997) found that executive pay is directly proportional to current shareholder returns but not to pre-dated returns. In their study conducted in the UK and based on the Cadbury Commission, Girma, Thompson and Wright (2003) found that it was difficult to establish any relationship between company performance and executive remuneration; while McConvill (2005), found that, the link between pay and performance was extremely questionable. On the other hand, Merhebi et al. (2006) found that executive pay was directly linked to company performance in companies in Australia.

In more recent years, in their study Gregg, Jewell and Tonks (2010) found evidence of a highly positive relationship between executive remuneration and company size but little evidence of a relationship between executive remuneration and company performance. In their study, Nelson et al. (2011) found that several companies had

reduced their executive remuneration because of company performance decreasing both during and after the global financial crises.

According to Theku (2014), the debate on executive remuneration and company performance in South Africa has been dominated by the widening income inequality between executives and ordinary workers in South African companies. In a research study conducted in South Africa, De Wet (2012) found a significant relationship between executive remuneration and company performance in the listed companies as compared to the companies listed in the USA. Scholtz and Smit (2012) found evidence of a slight relationship between executive remuneration and certain financial indicators of the companies listed on the AltX in South Africa. In addition, they also established the fact that such a relationship held during financial crises. However, contrary to this finding, Bradley (2013) found no correlation between CEO compensation and company performance in South Africa.

2.6 Director profiles

According to Iwu-Egwuonwu (2010), character plays an important part in defining who a director really is, as character comprises the set of qualities that makes somebody or something distinctive. There has been little research in the field of executive directorship and what constitutes an outstanding executive director. Nevertheless, the position of director is a challenging one as he or she is expected to advocate the interests of diverse groups of shareholders, particularly the minority shareholders, while at the same time avoiding an adversarial relationship with the executives on the board (KPMG in Malaysia, 2009).

The survey conducted by KPMG in Malaysia (2009) provides a basic guideline of the characteristics that a director should possess. The characteristics that should be taken into account include age, gender, race, degree/background, practices and length of directorship. The Korn/Ferry institute (2012) also cites these above-mentioned characteristics as playing a role in what comprises an exceptional executive director.

In an article in the *Harvard Business Review*, Sonnenfeld (2002) mentions that an outstanding director may be measured by the following: regular meeting attendance, equity involvement, board member skills, board member age and the independence of the director. Furthermore, Sonnenfeld (2002) mentions that, at times, the presence of past directors may help to influence the decisions of current directors, while holding current directors accountable for their decisions and choices assists in the development of good directors.

2.7 Components of executive remuneration

The Executive Remuneration Report of The Corporations and Markets Advisory Committee (2011) defines remuneration' as 'compensation' which includes, firstly, short-term employee benefits such as wages, salaries and social security contributions, paid annual leave and paid sick leave, profit-sharing and bonuses, and non-monetary benefits such as medical care, housing, cars and free or un-subsidised goods or services for current employees; secondly, post-employment benefits such as pensions, other retirement benefits, post-employment life insurance and post-employment medical care; thirdly, other long-term employee benefits, including long-service leave or sabbatical leave, jubilee or other long-service

benefits, long-term disability benefits and, if they are not payable wholly within twelve months after the end of the financial period, profit-sharing, bonuses and deferred compensation; fourthly termination benefits; and, finally, share-based payments.

In their discussion paper, Ebert et al. (2008) explain that CEO remuneration packages comprise various components. In order to categorise executive compensation, several distinctions can be made. For example, distinctions should be made between fixed and variable compensation, compensation in cash and non-cash compensation and, finally, between deferred and immediate compensation.

Bradley (2013) categorises remuneration as any fixed payment received during the year that was included in the subtotal reflecting the salary. Directors' fees, cash remuneration and any form of guaranteed compensation were also included, while short-term bonuses were deemed to include any unguaranteed forms of compensation. Bradley (2013) analysed salaries separately from bonuses as he was of the opinion that bonuses were more likely to be dependent on performance than the salary element. In addition, Bradley (2013) categorised all bonuses due in less than twelve months as 'short term' and included them in the remuneration component.

A recent executive directors' remuneration report compiled by PWC (2013) mentioned that long-term incentive plans and share options are too complex, while the performance conditions demanded by shareholders and the 'market' were not deemed to provide a strong link between rewards and shareholder value. As a result, many writers, including Scholtz and Smit (2012), De Wet (2012) and Theku

(2014), exclude long-term options and share options from their definitions of executive cash remuneration.

The guide to the application of King III (2012), Practice Notes v2, states that, firstly, when proposing the remuneration policy the remuneration committee should ensure that a mix of fixed and variable pay in cash, shares and other elements meets the needs and strategic objectives of the company in question. Secondly, there should be a balance between the fixed components and the bonus component of the total remuneration of executives to allow for a fully flexible bonus scheme. Thirdly, annual bonuses should also clearly relate to performance as measured against yearly objectives consistent with the interests of shareholders. Finally, depending on the type of business, it may be appropriate to stipulate overriding conditions for the awarding of these bonuses.

2.8 Definition of terms

- *Executive remuneration*. Total cash remuneration of executive directors as disclosed in published annual reports. Cash remuneration includes basic salary, benefits, annual bonuses and share options as disclosed.
- *Turnover*. Sales as disclosed in the statement of comprehensive income.
- *Total assets*. Non-current assets plus current assets as disclosed in the statement of the financial position of the company.
- *Return on assets (ROA)*. Net income before extraordinary items divided by total assets.
- *Tobin's Q*. The ratio of the market value of the company to the replacement value of its assets.

$$\frac{Total\ assets\ book\ value - Common\ equity\ book\ value + Common\ equity\ market\ value}{Book\ value\ of\ Total\ Assets}$$

2.9 Summary

Chapter 2 identified that the results from previous studies on executive remuneration and company performance have provided contradictory evidence worldwide. The components of executive pay should include basic salary, benefits, bonuses and share options and the definition of company performance were considered. It was also noted that, age, race, gender, educational qualifications, length of directorship and meeting attendance are all-important best components of director profiles. The terms that will be used in the research were then defined and included Tobin's Q and ROA. Chapter 3 discusses the research methodology used in the study.

CHAPTER 3

Research Methodology

3.1 Purpose of the study and research questions

The purpose of this research study is to explore both the relationship between the performance of listed companies in South Africa and their executive director remuneration, as well as the relationship between executive director remuneration and executive director profiles.

3.1.1 Executive remuneration

The literature reviewed in section 2.1 indicated that the main components of executive remuneration include the following; salaries, post-employment benefits, other long-term benefits, termination benefits and share based payments (The Corporations and Markets Advisory Committee, 2011). The guide to the application of King III (2012), Practice Notes v2, in summary states that total remuneration, including annual bonuses, should be aligned to match the company performance and take into account the interests of shareholders. This gave rise to the main aim of this study.

Main research question:

Does a significant positive relationship exist between company performance and executive director remuneration?

3.1.2 Executive director profiles

As indicated in the literature reviewed in section 2.1, the following play an important role in what constitutes an exceptional executive director; namely, age, race, gender,

educational qualification, length of directorship and meeting attendance (Sonnenfeld, 2002; KPMG in Malaysia, 2009; Korn/Ferry institute, 2012). This gave rise to the sub-research question, namely, whether or not any relationship exists between director profiles and director remuneration. This sub-question has been broken down further into the following six sub-questions as noted below:

Sub-research question 1:

Is there a difference in the executive remuneration of the various director age groups?

Sub-research question 2:

Is there a difference in the executive remuneration of male and female directors (gender)?

Sub-research question 3:

Is there a difference in the executive remuneration of directors from the various race groups?

Sub-research question 4:

Is there a difference in the executive remuneration of directors with different educational qualifications?

Sub-research question 5:

Is there a difference in the executive remuneration of directors who have served longer directorship periods as compared to those who have served for shorter periods?

Sub-research question 6:

Is there a difference in the executive remuneration of directors who attend meetings on a regular basis as compared to those whose attendance is more sporadic?

3.2 Overview of research method used

The components examined in this study included executive remuneration, turnover, total assets, ROA and Tobin's Q. Inferential statistics were used to identify whether the remuneration packages of executives were related to company performance. These components, which are to measure company performance, have been used in previous studies (Scholtz and Smit, 2012; De Wet, 2012; Mentes, 2011) and have proved to be the most reliable measurements of a company's performance.

This study used quantitative research as defined by Leedy and Ormrod (2005). As stated by Creswell (2008), in quantitative research the researcher tests a theory by specifying a question and then collecting data to either support or refute the findings in response to the question.

In order to examine whether or not there was an association between the level of director compensation, director profiles and company performance in South Africa, the focus of this study was on the JSE listed companies.

The research study used correlation as a research test. In other words, in accordance with the definitions proposed by Leedy and Ormrod (2005) and Creswell (2008), this study examines the extent to which differences in one characteristic or

variable are related to differences in one or more other characteristics or variables. A positive correlation exists if, as one variable increases, so does the other or vice versa or if a predictive relationship exists. The use of a correlation study was deemed to be appropriate for the purposes of this study as previous studies of this nature have used this method successfully, for example studies conducted by Core, Holthausen and Larcker (1999), as well as Nelson et al. (2011).

3.2.1 Independent and dependent variables

The independent and dependent variables used in the study were in line with those used in prior research conducted by De Wet (2012) and Bradley (2013). The independent variables included the company performance variables, namely, Tobin's Q, ROA, revenue and total assets, while the dependent variables included the executive director remuneration variables, namely, basic salary, bonuses, benefits, retention bonuses, options and total remuneration as a whole.

3.2.2 Statistical models and regression analysis

As in past research, this report also began with an analysis of the descriptive statics pertaining to the data collected. This included calculations of the mean, medium, minimum, maximum and standard deviations of the data collected for all the variables. The analyses of the descriptive statistics being analysed are discussed under the following headings, namely, univariate descriptive statistics, tests of normality and correlation tests and, lastly, bivariate descriptive statistics.

The study then developed a general linear regression model to explore the relationship between executive director remuneration and company performance. This also involved carrying out numerous correlation tests and analysis of variance

(ANOVA) tests. Finally, the researcher performed a number of inferential tests, which included mainly the Mann-Whitney U test and the Kruskal Wallis test to investigate whether there was any relationship between the executive director profile variables and the executive director remuneration variables.

3.3 Population and sample

As at the 31 December 2014 there were, 352 companies per the McGregor's Bureau of Financial Analysis data stream (McGregor BFA). In order to ensure that the comparison was meaningful, only those companies that had published annual reports for all five years between the period 1 January 2010 and 31 December 2014 and, thus, for which all financial and non-financial information over the last five years was available, were used. Companies whose financial and non-financial information was not available for the previous five years were excluded as it felt they would not provide a reasonable comparison for the purposes of this research. It was found that 49 companies only had data available for each of the five years for which the financial and non-financial statistics were required.

3.4 Sample size and selection of sample

From the total number of companies (352) listed on the JSE from 2010 to 2014 and included in the McGregor BFA financial database, the researcher used all the companies from across all the industries and whose financial and non-financial information was available for the period under study, namely, 2010 to 2014.

3.5 Data source

Previous writers, including Ismail, Yabai and Hahn (2014), Nelson et al. (2011) and

Sapp (2007), have found that many companies do not have proper annual reports for a particular year, either because such reports are removed or they are no longer available to the public. In addition, the literature indicates that some companies do not comply with a certain standard of orders in sorting and reporting their annual reports, though they do adhere to the International Financial Reporting Standards (IFRS).

Many companies use a different order in the arrangement of their annual reports, although these reports include the same components such as statement of financial position, statement of comprehensive income and statement of cash flow. In addition, some companies do not clearly distinguish between independent non-executive directors and non-independent non-executive directors on their boards nor do they explicitly specify the age, educational qualification or length of directorship of all directors (Ismail et al., 2014).

In view of the difficulty involved in acquiring information from private companies, as well as in respect of the disclosure of director profiles and remuneration information, it was decided to limit the study to public companies that were listed on the JSE. For the purposes of the study, the extent of company performance was measured using the statutory annual reports. Thus, the data used in the study was collected from the published annual reports of companies listed on the JSE from the 2010 to 2014.

The primary source of information for the study was the secondary database from McGregor BFA, which supplies both real-time and historical fundamental information on South African listed companies. The non-financial information, namely, the

director profiles and director remuneration data, was also gathered from the published annual reports.

3.6 Data collection and management

As mentioned above, the requisite data was sourced from the published annual reports on each company's website and downloaded from the McGregor BFA financial database directly into Microsoft Excel. These workbooks were then managed by storing them on a laptop as well as backing them up onto an external hard drive and email backups. The data was collected between June 2015 and November 2015 and analysed from December 2015. The first research report draft was ready at the end of January 2016.

3.7 Data analysis

In order to make meaningful comparisons between the results of different companies, it was necessary to devise a standardised system of analysis. The standardised information for the financial data for companies listed on the JSE between 1 January 2010 and 31 December 2014 was extracted from McGregor BFA.

The non-financial data, company performance line items required for the study and executive remuneration were obtained from the companies' website and from their annual financial statements.

Firstly, in order to answer the question as to whether there was a link between executive director remuneration and company performance, correlation tests were

performed to investigate both the company performance variable for each company (Tobin's Q, ROA, revenue and total assets) and the executive director remuneration variable of each executive director (basic salary, benefits, bonuses, retention benefits, options and total remuneration). These were all defined in section 2 of this research study. This relationship was further assessed using simple linear regression, namely, a general linear model (GLM).

Secondly, the link between executive director profiles and executive director remuneration was determined by using the groupings of the director matrix complied (see Table 3.2). These profiles were correlated with the individual executive director remuneration components as well as the total executive director remuneration.

In order to investigate the second research question as to whether there was either a direct or indirect correlation between executive profiles and remuneration, a matrix table was compiled by examining the directors per company and then tabulating their profiles as per the guidance outlined by KPMG in Malaysia (2009), the Korn/Ferry Institute (2012) and the Institute of Directors (2009). Table 3.1 below presents the table that was compiled of the data in order to facilitate the data analysis.

Table 3.1: Matrix comparing director profiles

JSE Company	Director	Year	Age	Race	Gender	Educational Qualification	Length of directorship	Meeting Attendance	Basic Salary	Benefits	Bonuses	Retention	Options	Total
A	1	2010												
		2011												
		2012												
		2013												
		2014												
	2	2010												
		2011												
		2012												
		2013												
		2014												

Table 3.2 Groupings of data collected

Category	Guidelines
Age	Age not disclosed
	31-40
	41-50
	51-60
	60+
Gender	Male
	Female
Race	White
	Coloured/Indian
	Black
Educational Qualification	Not disclosed/ No degree
	Diploma or other
	Bcom/BSc/LLB/BA
	MBA/CFA/PHD
	CA(SA)
Length of directorship	1-5 years
	6-10 years
	11-15 years
	16-20 years
	20 years and greater
Meeting Attendance	attended all meetings required
	did not attend all meetings

Table 3.2 above details the way in which the researcher grouped the data into various categories to make it easier to interpret the data when populating it into the director profile matrix. For gender, obviously, just two groups were disclosed, that is, male or female. Director ages were categorised into five groupings, each with a range of 10 years except for those directors whose ages were not disclosed, while those above 60 years were all grouped into one group. Race was categorised into black or white, while Indians and coloureds were grouped together.

Educational qualification was categorised into five groups; namely, directors with either no degree/diploma or else educational qualification not disclosed, directors with a diploma or other qualification, directors with a general Bachelor of Commerce (BCom), Bachelor of Science (BSc), law degree (LLB) or Bachelor of Arts (BA) degree, directors with an MBA, CFA or PhD and those with a CA. The length of

directorship or tenure, used interchangeably, was also categorised into five groups, with each group spanning five years, namely, 1 to 5 years, 6 to 10 years, 10 to 15 years and 16 to 20 years, as well as 21 years and more. Lastly, meeting attendance was split into two groups, those who attended all meetings and those who did not attend all meetings.

Basic descriptive statistics using chi-squared tests, t-tests and ANOVA tests were performed on the data to further test the impact of each specific profile type on director remuneration. Using the Mann-Whitney U test and Kruskal Wallis test, the existence of specific categories of the profiles were examined in order to understand their impact on director remuneration. For example, was the remuneration of directors who were female and who were qualified Chartered Accountants (CA) greater than those who were not CAs? The above statistical methods have all been used in previous studies, including studies conducted by Core et al. (1999) and Nelson et al. (2011) and, in accordance with the suggestions of Creswell (2008), have proved to be suited to quantitative research. All the above mentioned statistics were tested by means of IBM SPSS.

3.8 Validity and reliability

For the purposes of this study, the researcher focused primarily on measurement validity in terms of using different dependent variables and endeavouring to examine whether each variable was able to reflect an association with firm performance. The internal validity of the study was reflected in the correlation test between the different variables, which was carried out in order to examine the relationship between these variables. In other words, regression diagnostics, including a test for normality and

multicollinearity, were carried out to enhance the internal validity of the general linear regression model used in the study.

The researcher is of the opinion that the data collected was valid. All the data used was extracted from the audited and published annual reports of the companies in question. These reports are characterised by a high level of both credibility and accountability. Further, the data obtained from the individual financial statements is deemed unbiased; hence the researcher did not consider it necessary to interpret this data when collecting it. The data collected from both BFA McGregor and the individual financial statements was deemed both valid and reliable, as these sources have been used in other studies, for example those conducted KPMG in Malaysia (2009), the Korn/Ferry Institute (2012) and PWC (2013).

In view of the fact that the data collected for the purposes of this study was collected from audited published annual reports, the researcher was sure this would ensure a high level of reliability. The regression model used in the study has been utilised by previous researchers and was deemed an established model. In addition, the use of the SPSS statistical software package ensured that the processing of the data was accurate, controllable and reliable. The research methods used in the study were also deemed both valid and reliable, as several writers, including Scholtz and Smit (2012), Core et al. (1999) and Nelson et al. (2011), have all used these methods. Accordingly, the researcher is convinced of the transparency, relevance and reliability of this dissertation.

3.9 Assumptions, limitations and delimitations

3.9.1 Assumptions

The requisite data was obtained from the BFA McGregor database and the individual company websites, as well as the companies' published annual reports. These sources constituted reliable third-party information, which has been used by other writers for the purposes of academic research, and they were, thus, assumed reliable. It was further assumed that the total number of companies included in the sample was sufficient to ensure adequate data on company performance and that the companies in question had communicated the information honestly and truthfully. False data would have had an unfavourable effect on the study results and would have skewed the results of the statistics performed.

3.9.2 Limitations

The data was limited to that of those JSE companies for which all-financial and non-financial information was available for all the years in the period under investigation, namely, 1 January 2010 to 31 December 2014. The company performance variables used included only Tobin's Q, ROA, Revenue and Total Assets while executive director remuneration included only basic salary, benefits, bonuses, retention bonuses and options as disclosed in the annual reports. The executive director profiles included only age, gender, race, educational qualification, tenure and meeting attendance as disclosed in the annual report or integrated reports of the companies.

3.9.3 Delimitations

Firstly, this report did not aim to study any company other than those listed on the

JSE listed entities. In addition, the report focused only on the Code of Governance Principles for South Africa 2009 and, thus, data on budgets and forecasts of specific business units was not included. Secondly, the report did not aim to investigate the remuneration packages of any other directors besides executive directors. Finally, the report examined only those benefits as disclosed in the remuneration report and did not investigate any long-term benefits, post-employment benefits terminations and share based payments as disclosed in the financial statement notes.

3.10 Summary

The objective of this research study was to establish whether executive director remuneration was related to company performance. Thus, using statistical techniques, the aim of the study was to explain or predict a dependent variable (executive director remuneration) based on a set of independent variables (company performance). General linear regression analysis was selected for this purpose. Regression results provide information on the statistical significance of the independent variables and the strength of the association between one and more of the predictors. The information provided by the regression analysis clearly enabled the researcher to realise the aims and objectives of this research study. The next chapter discusses the results of the general linear regression models used in the study. This is followed by a summary of the research study and the conclusions drawn from the study.

CHAPTER 4

Analysis and Interpretation of Research Results

4.1 Introduction

This chapter presents the analysis and interpretation of the research results. The chapter starts by providing details of the sample used, as well as the data screening and data transformation that took place. This is followed by a discussion of the descriptive statistics used for the primary independent variables. The regression models, which were used to analyse the relationship between executive director remuneration and company performance, are discussed in section 4.4 of the chapter. The regression model was tested at a 5% confidence level.

The latter part of the chapter analyses the inferential statistics, mainly the Mann-Whitney U tests and Kruskal Wallis tests, which were performed to investigate the relationship (if any) between executive director remuneration and executive director profiles. The chapter then concludes with section 4.6, which presents and discusses a summary of the research results.

4.2 Data

The combined list of companies listed on the JSE during 2014 – 352 companies was extracted from McGregor BFA. Certain companies were removed from the population as part of the data screening and data transformation procedures as detailed in section 3.2.3. A total of 303 companies were excluded for the following reasons, firstly, their information was not available as a result of the shares being either delisted or suspended on the JSE, secondly, they did not disclose the key variable staff costs or a variable in relation to the composition of the board of

directors and, finally, they did not disclose information pertaining to all five of the financial years investigated. As a result, the final sample comprised 49 companies*. The final director dataset contained 708 records, each referring to a year (from 2010 to 2014) and, for each year, all the directors of the companies in question.

**352–303 = 49*

4.3 Descriptive statistics

4.3.1 Univariate descriptive statistics

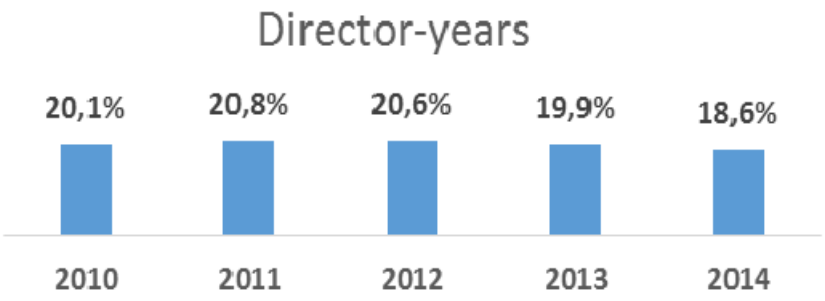


Figure 4.1: Director year's distribution

As shown in Figure 4.1, the director profile data records were distributed across five years. The groups per year were not independent as a given director could have been involved in more than one year. The unit of analysis was director-years, irrespective of individual directors. It is important to bear in mind that not all individual directors contributed the same number of years and, thus, all the relevant attributes were in favour of those of directors who had contributed to the most director-years. The director-years were effectively equally distributed across the five years.

While none of the King reports stipulates a maximum size required for a board

(Armstrong et al., 2005, IOD, 2009), the IOD (2009) insists that, in terms of King III, a board should comprise at least two directors, namely, the CEO and the finance director, while the Companies Act of 2008 requires that the board of a public company should consist of at least three directors. The director matrix table complied from the data collected revealed that, for all the companies in the sample, there had been at least three directors in every year. This implies that the requirements of both the Companies Act and the King III report were being met.

Table 4.1: Age distribution

	N	Minimum	Maximum	Mean	Std. Deviation
Age	678	31	73	49.28	7.715
Valid N (listwise)	678				

As illustrated in Table 4.1, on average, the directors were 49.28 years old for all the director-years with a small variation (coefficient of variation = 0.155) from one director-year to the next.

Table 4.2: Age group distribution

		Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid	60+	43	6.1	6.3	6.3
	51-60	251	35.5	37	43.4
	41-50	279	39.4	41.2	84.5
	31-40	105	14.8	15.5	100
	Total	678	95.8	100	
Missing	Age not disclosed	30	4.2		
Total		708	100		

As illustrated in Table 4.2, the ages of 4.2% of the total population of directors were

not disclosed in the financial statements examined. It may, however, be noted that, among those who disclosed their age every year, the majority (75%) of the directors across the director-years were between 41 and 60 years of age. It was also observed that very few directors (6.1%) above the age of 60 remained in executive positions. This was probably to be expected as the retirement age in South Africa ranges from 60 years for females to 65 years for males (The South African Labour Guide, 2016). The table also shows that 14.8% of directors were aged between 31 and 40.

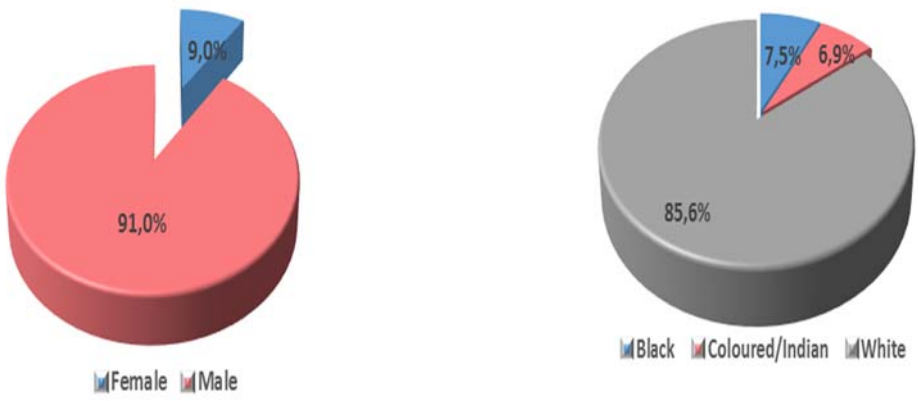


Figure 4.2: Gender and race distribution

As illustrated In Figure 4.2, the vast majority of directors across the five director-years tended to be male (91%) rather than female (9%). In addition, the majority of directors across all the years were primarily white (85%), with less than 20% of the directors being black, Indian or coloured. Both the gender and the race results statistics were surprising, as the Employment Equity Act 55 of 1998 specifically prohibits unfair discrimination on the grounds of, among others, race, gender and age. The aim of this Act is to ensure employment equity.

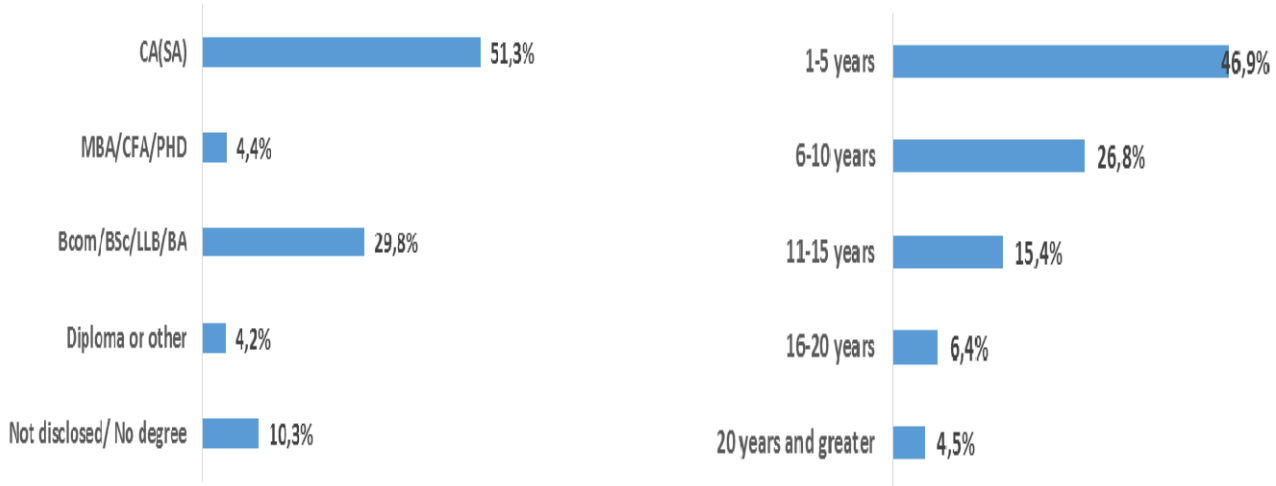


Figure 4.3: Qualification and tenure distribution

Figure 4.3 illustrates that, in 10.3% of the director-years, the directors either did not disclose their education levels or else they did not have degrees. However, in more than half (51.3%) of the director-years, the directors had a CA (SA) qualification while almost 30% of the directors held a general BCom, LLB, BA or BSc degree. Approximately 9% of directors held an MBA, PHD, CFA or a diploma. In terms of tenure distribution, the majority of the directors (46.9%) had served a period of between one and five years as executive director, while a large percentage of directors (42.2%) had remained on the executive director board for a period of between 6 and 15 years. In addition, the results revealed that 10.9% of directors had held executive positions for longer than 15 years. The results collected in the director profile matrix showed that, for all the director-years, the directors had attended all meetings that they were required to attend. Accordingly, no additional statistics were conducted on meeting attendance.

Table 4.3: Remuneration distribution

	N	Minimum	Maximum	Mean	Std. Deviation	CV
Basic Salary	708	0	15303000	2570111	1697410	0.66
Benefits	708	0	56724000	687230	2455689	3.57
Bonuses	708	0	30616000	1711096	2470612	1.44
Retention	708	0	3127000	66038	345352	5.23
Options	708	0	52954000	849787	3228832	3.80
Total	708	0	68636000	5884261	6319521	1.07
Valid N (listwise)	708					

The table above shows that, on average, the basic salary of directors per director-year was R2 570 111. Despite the fact that there were significant variations in basic salary between the director-years, this item demonstrated the highest level of agreement across the director-years (CV = 0.660). All the other items on the list varied extensively with retention displaying the highest variation (CV = 5.230). This was, however, to be expected because, as noted from the data collected, not all the companies paid a retention bonus. It was also noted that not all the companies had options that were disclosed at face value and, thus, a significant variation was noted in this category (CV = 3.8). Benefits included items such as travel or car allowances, medical aid allowances, etc. These also differed from company to company although this category displayed a marginal variation only (CV = 3.573).

Table 4.4: Company performance variables distribution

	N	Minimum	Maximum	Mean	Std. Deviation	CV
Revenue_2010	49	53438000	122256000000	11388629714	22586637728	1.9833
Revenue_2011	49	55608000	1113110000000	34775820303	159181232616	4.5774
Revenue_2012	49	47382983	1258694000000	39497858835	180057699409	4.5587
Revenue_2013	49	92382000	169891000000	15335592736	31336992324	2.0434
Revenue_2014	49	103567000	202683000000	16687698234	34648720075	2.0763
Valid N (listwise)	49					

	N	Minimum	Maximum	Mean	Std. Deviation	CV
TobinsQ_2010	49	0.1	1.2	0.537	0.2249	2.3297
TobinsQ_2011	49	0.1	1	0.524	0.2106	3.0728
TobinsQ_2012	49	0	1	0.518	0.2039	3.201
TobinsQ_2013	49	0.1	6.1	0.615	0.8226	3.4485
TobinsQ_2014	49	0.1	5.3	0.594	0.7129	3.3818
Valid N (listwise)	49					
	N	Minimum	Maximum	Mean	Std. Deviation	CV
ROA_2010	49	-15.01	81.49	13.6922	15.90071	2.3297
ROA_2011	49	-33.48	74.73	11.1294	15.58976	3.0728
ROA_2012	49	-26.99	78.42	10.168	14.45553	3.201
ROA_2013	49	-35.11	65.61	7.8288	15.6237	3.4485
ROA_2014	49	-20.66	68.76	8.6355	13.98694	3.3818
Valid N (listwise)	49					
	N	Minimum	Maximum	Mean	Std. Deviation	CV
TotalAssets_2010	49	34223000	156484000000	10181598368	23720013669	2.3297
TotalAssets_2011	49	36533000	341823000000	17644067786	54217516626	3.0728
TotalAssets_2012	49	45698000	396986000000	19470781693	62326008086	3.201
TotalAssets_2013	49	51716000	561304000000	24963007746	86086095506	3.4485
TotalAssets_2014	49	59021000	611253000000	27910495175	94387542931	3.3818
Valid N (listwise)	49					

Table 4.4 above presents the descriptive statistics pertaining to the company performance data that was examined. The table shows the mean amounts for all the variables examined, namely, revenue, total assets, Tobin's Q and ROA. It may be noted that there were significant degrees of variation across the years for all four of the variables.

The highest variation in revenue was during 2012, while the CVs had started to stabilise during 2013 and 2014. The 2010 revenue amounts depicted the lowest variation (CV = 1.9833). The results revealed that the CVs for total assets, Tobin's Q and ROA were identical for all the years examined and were also fairly consistent across the periods with the highest variation during 2013 (CV = 3.4485) and the lowest during 2010 (CV = 2.3297).

4.3.2 Tests of normality and correlation tests

The data interpreted above may be viewed in two different ways. Firstly, the data may be interpreted by allowing one company to contribute more records to the sample based on the number of directors in the company. This means that the unit of analysis would be director-years, thus giving a sample of 708 records covering five years.

Secondly, the data may be interpreted by aggregating the remuneration variables so that each company contributes a single remuneration record with each remuneration variable being the average director remuneration calculated for each of the five years. This means that the unit of analysis would be company-years, thus giving a sample of 245 records covering five years. It was decided to choose the first option as a preferred method as this method takes into account the data on director profiles and company performance that occurred over a five-year period. The differing number of directors per company per year is presented in the table below.

Table 4.5: Number of director's year cross tabulation

Count		Year					Total
		2010	2011	2012	2013	2014	
NumDirectors	1	3	1	1	0	1	6
	2	17	19	21	23	24	104
	3	18	16	14	15	16	79
	4	7	8	7	7	5	34
	5	2	3	4	3	3	15
	6	1	1	1	0	0	3
	7	1	1	1	1	0	4
Total		49	49	49	49	49	245

Table 4.6: Tests of normality

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Revenue	.414	708	.000	.182	708	.000
Total Assets	.387	708	.000	.280	708	.000
TobinsQ	.225	708	.000	.407	708	.000
ROA	.152	708	.000	.846	708	.000

a. Lilliefors Significance Correction

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Basic Salary	.120	708	.000	.863	708	.000
Benefits	.390	708	.000	.173	708	.000
Bonuses	.244	708	.000	.655	708	.000
Retention	.522	708	.000	.193	708	.000
Options	.396	708	.000	.274	708	.000
Total	.190	708	.000	.644	708	.000

a. Lilliefors Significance Correction

Both the Kolmogorov-Smirnov and the Shapiro-Wilk tests tested the null hypothesis that the data is normally distributed. Both tests revealed that the data deviated significantly from normal deviation (p (Sig) < .05). Thus, non-parametric methods should be used in conjunction with these variables. The deviation from normality is illustrated in the Appendix A and Appendix B. It was noted that there were some far outliers in the data.

When running correlation tests, both Spearman's (non-parametric) and Pearson's (parametric) correlations were tested. However, the significance of Pearson's correlation was not interpreted in view of the non-normal distributions. As illustrated in the table below, there were no significant correlations noted from the statistical tests performed, although correlation was significant at the 0.01 level (2-tailed) and

the 0.05 level (2-tailed).

Table 4.7: Correlation tests

Correlations

			Revenue	Total Assets	TobinsQ	ROA
Spearman's rho	Revenue	Correlation Coefficient	1.000			
		Sig. (2-tailed)	.			
		N	708			
	Total Assets	Correlation Coefficient	.863**	1.000		
		Sig. (2-tailed)	.000	.		
		N	708	708		
	TobinsQ	Correlation Coefficient	-.135**	-.180**	1.000	
		Sig. (2-tailed)	.000	.000	.	
		N	708	708	708	
	ROA	Correlation Coefficient	.068	.058	.052	1.000
		Sig. (2-tailed)	.069	.121	.167	.
		N	708	708	708	708

**. Correlation is significant at the 0.01 level (2-tailed).

Correlations

			Basic Salary	Benefits	Bonuses	Retention	Options	Total
Spearman's rho	Basic Salary	Correlation Coefficient	1.000					
		Sig. (2-tailed)	.					
		N	708					
	Benefits	Correlation Coefficient	.434**	1.000				
		Sig. (2-tailed)	.000	.				
		N	708	708				
	Bonuses	Correlation Coefficient	.525**	.268**	1.000			
		Sig. (2-tailed)	.000	.000	.			
		N	708	708	708			
	Retention	Correlation Coefficient	-.050	-.002	-.085*	1.000		
		Sig. (2-tailed)	.188	.963	.023	.		
		N	708	708	708	708		
	Options	Correlation Coefficient	.180**	.231**	.162**	-.084*	1.000	
		Sig. (2-tailed)	.000	.000	.000	.025	.	
		N	708	708	708	708	708	
	Total	Correlation Coefficient	.865**	.547**	.722**	.001	.385**	1.000
		Sig. (2-tailed)	.000	.000	.000	.980	.000	.
		N	708	708	708	708	708	708

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Correlations

			Revenue	Total Assets	TobinsQ	ROA
Spearman's rho	Basic Salary	Correlation Coefficient	.429**	.428**	-.229**	.024
		Sig. (2-tailed)	.000	.000	.000	.526
		N	708	708	708	708
	Benefits	Correlation Coefficient	.318**	.249**	-.015	-.061
		Sig. (2-tailed)	.000	.000	.686	.106
		N	708	708	708	708
	Bonuses	Correlation Coefficient	.176**	.265**	-.196**	.028
		Sig. (2-tailed)	.000	.000	.000	.455
		N	708	708	708	708
	Retention	Correlation Coefficient	.022	-.077*	-.109**	-.158**
		Sig. (2-tailed)	.561	.042	.004	.000
		N	708	708	708	708
	Options	Correlation Coefficient	.119**	.141**	.004	.065
		Sig. (2-tailed)	.001	.000	.913	.085
		N	708	708	708	708
	Total	Correlation Coefficient	.454**	.469**	-.239**	.008
		Sig. (2-tailed)	.000	.000	.000	.834
		N	708	708	708	708

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

The most significant correlations for the company performance variables was between total assets and revenue while Tobin's Q and revenue and total assets showed a negative correlation. For the director remuneration variables, the most significant correlation was between benefits and basic salary as well as between bonuses and basic salary. The study also found a significant correlation between total remuneration and all the other director remuneration variables except for retention.

With regard to the company performance variables versus the director remuneration variables, the study found a strong correlation between basic salary and revenue as well as between total assets and benefits and revenue. There was also a significant correlation between total remuneration and both revenue and total assets. In

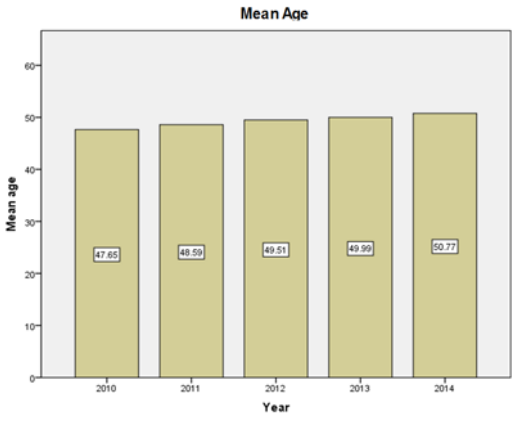
addition, the study found a linear relationship between the performance variables and the remuneration variables. The graphs in Appendix C illustrate this relationship.

4.3.3 Bivariate descriptive statistics

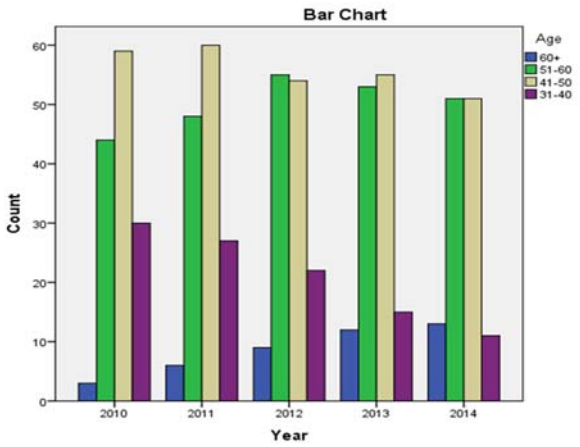
Figure 4.4: Bivariate statistics on the director profile components

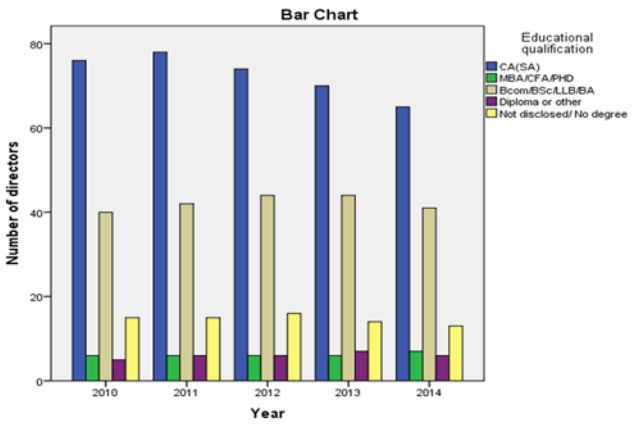
Year * Gender Crosstabulation

		Gender		Total
		Female	Male	
Year	2010 Count	12	130	142
	2010 % within Gender	18.80%	20.20%	20.10%
	2011 Count	13	134	147
	2011 % within Gender	20.30%	20.80%	20.80%
	2012 Count	13	133	146
	2012 % within Gender	20.30%	20.70%	20.60%
	2013 Count	13	128	141
	2013 % within Gender	20.30%	19.90%	19.90%
	2014 Count	13	119	132
	2014 % within Gender	20.30%	18.50%	18.60%
Total	Count	64	644	708
	% within Gender	100.00%	100.00%	100.00%

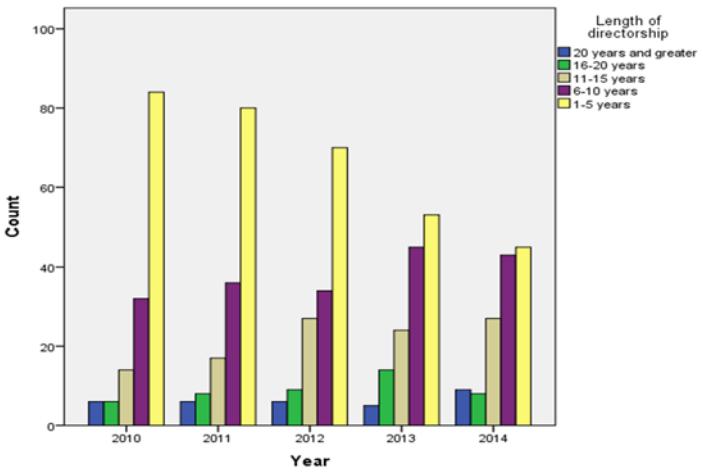


Year * Educational qualification Crosstabulation

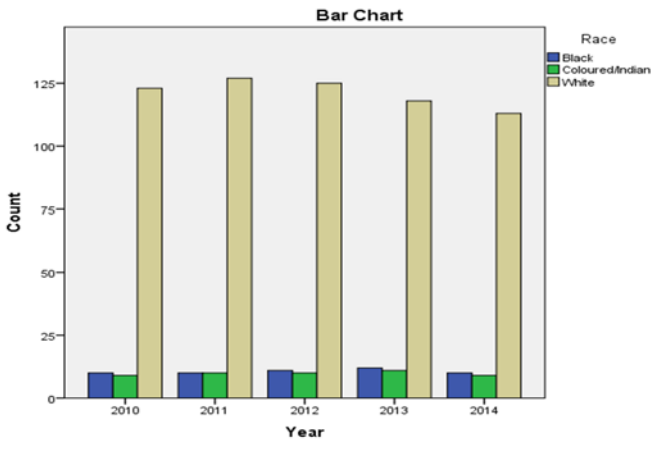




Year * Length of directorship Crosstabulation



Year * Race Crosstabulation



In summary, the above bivariate statistics depicted in Figure 4.4 for director profile components revealed the following: firstly, the male–female distribution remained essentially the same across the five data collection years. Secondly, there was no discernible pattern in the proportions of 41 to 55 year olds and 51 to 60 year olds. However, across the five years, the proportions of 60 years and older directors increased, while the proportions of 31 to 40 year olds decreased. However, this pattern was to be expected because many of the same directors were involved in more than one year and they obviously age every year. As was to be expected, the mean age increased slightly across the years.

Thirdly, there was relatively little variation in the race proportions across the five years. Fourthly, proportion of directors with a CA (SA) qualification demonstrated a downward trend across the five years. However, this variation was to also be expected because of the fact that the same directors were involved in more than one year. Fifthly, the average remuneration amounts, except for retention, all increased across the five years. Sixthly, the study showed that the 60+ year old group consisted of males only. In addition, males comprised the largest proportion in all age groups as compared to females and dominated in all race groups. None of the directors with a diploma or an undisclosed education level was female, whiles all the directors with tenure of 16 years or longer was male.

Finally, none of the black directors was older than 60. However, this was to be expected as the Employment Equity Act, 1998, which prevents the unfair discrimination on the grounds of, among others, race, gender and age was only passed in 1998 and, thus, blacks were awarded top positions only on implementation

of the Act. In addition, the older directors tended not to have degrees. All the directors who had tenure of 20 years or more were white. Whites also predominated in all the educational qualification groups.

Table 4.8: Bivariate statistics on the company performance components

Gender	Revenue	Total Assets	Tobin's Q	ROA
Female	37260392472.266	66683238384.813	.554	5.4705
Male	26721878614.874	18058251911.017	.548	10.7779
Total	27674512635.881	22453730914.298	.549	10.2981

Race	Revenue	Total Assets	Tobin's Q	ROA
Black	29270449813.151	64628354009.226	.767	10.7891
Coloured/Indian	34919092877.551	67929366673.469	.492	11.8594
White	26949151081.035	15088118412.267	.534	10.1290
Total	27674512635.881	22453730914.298	.549	10.2981

Educational qualification	Revenue	Total Assets	Tobin's Q	ROA
CA(SA)	18047675505.614	15506685472.705	.530	10.2760
MBA/CFA/PHD	31986274548.387	133477521774.194	.433	2.1765
BCom/BSc/LLB/BA	29978764078.986	26535706790.194	.540	9.1661
Diploma or other	164753088966.667	5397961400.000	.885	13.4047
Not disclosed/ No degree	10720032013.699	5062171383.562	.581	15.8526
Total	27674512635.881	22453730914.298	.549	10.2981

Length of directorship	Revenue	Total Assets	Tobin's Q	ROA
20 years and greater	5030332812.500	3460173062.500	.570	9.7319
16–20 years	8966146244.444	4730181644.444	.559	9.2984
11–15 years	44835377178.395	23913588068.009	.508	9.5576
6–10 years	28921352257.942	25177148695.768	.479	9.9171
1–5 years	26045164679.970	24648850673.837	.599	10.9494
Total	27674512635.881	22453730914.298	.549	10.2981

Table 4.8 above presents the company performance statistics. In short, the results showed the following: On average revenue tended to be more in the director-years,

which were characterised by younger directors, while, on average, total assets were more during director-years which were dominated by 51 to 60 year old directors. It did not appear that Tobin's Q was influenced by the age of the directors. However, ROA seemed to be higher for director-years characterised by either older or younger directors. On average, revenue was higher in director-years characterised by female directors.

4.4 Regression analysis

4.4.1 Testing assumptions

The following dependent and independent variables were used for the regression analysis:

- DV = each of the remuneration variables in turn
- IV = Tobin's Q, ROA, Revenue and Total Assets

4.4.2 Univariate data exploration: independent variables (IV) and dependent variables (DV)

Table 4.9: Company performance variables regression statistics

			Revenue	TotalAssets	TobinsQ	ROA
Mean		Statistic	27674512636	22453730914	0.55	10.30
		Std. Error	4794081940	2937969880	0.02	0.54
95% Confidence Interval for Mean	Lower Bound	Statistic	18262171503	16685541072	0.52	9.23
	Upper Bound	Statistic	37086853769	28221920756	0.58	11.36
5% Trimmed Mean		Statistic	10303815322	7566350851	0.52	9.98
Median		Statistic	3542368500	3605856000	0.51	10.76
Variance		Statistic	1627212092671980000000	6111220247515130000000	0.20	208.08
Std. Deviation		Statistic	127562223745	78174294033	0.44	14.43
Minimum		Statistic	47382983	34223000	0.00	-35.11
Maximum		Statistic	1258694000000	611253000000	6.10	81.49
Range		Statistic	1258646617017	611218777000	6.10	116.60
Interquartile Range		Statistic	9698926000	10370732000	0.20	10.00
Skewness		Statistic	6	6	6.23	0.99
		Std. Error	0	0	0.09	0.09
Kurtosis		Statistic	76	34	107.48	6.93
		Std. Error	0	0	0.18	0.18

Figure 4.5: Graph depicting the distribution of the company performance variables

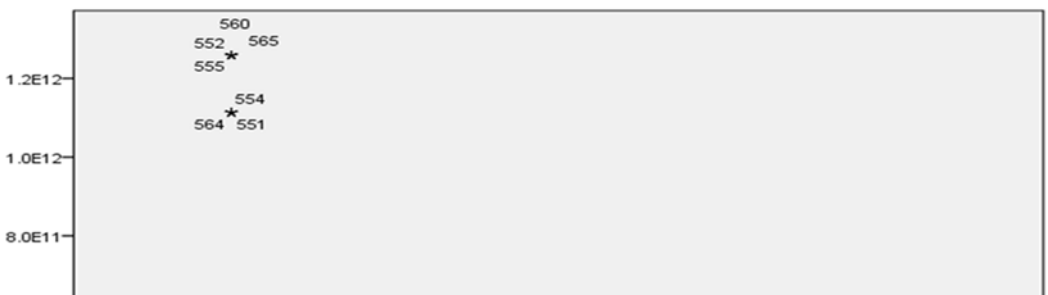


Table 4.10: Director remuneration regression statistics

			Basic Salary	Benefits	Bonuses	Retention	Options	Total
Mean		Statistic	2570111	687230	1711096	66038	849787	5884261
		Std. Error	63793	92290	92851	12979	121347	237502
95% Confidence Interval for Mean	Lower Bound	Statistic	2444866	506034	1528799	40555	611543	5417967
	Upper Bound	Statistic	2695357	868426	1893393	91520	1088030	6350555
5% Trimmed Mean		Statistic	2412613	425748	1394290	673	337642	5105850
Median		Statistic	2164000	326500	845000	0	0	4274500
Variance		Statistic	2881200441001	6030408350799	6103924871646	119267730110	10425355936061	39936350253601
Std. Deviation		Statistic	1697410	2455689	2470612	345352	3228832	6319521
Minimum		Statistic	0	0	0	0	0	0
Maximum		Statistic	15303000	56724000	30616000	3127000	52954000	68636000
Range		Statistic	15303000	56724000	30616000	3127000	52954000	68636000
Interquartile Range		Statistic	1910750	549500	2211250	0	46250	4963500
Skewness		Statistic	2	18	4	6	9	4
		Std. Error	0	0	0	0	0	0
Kurtosis		Statistic	7	390	35	42	112	32
		Std. Error	0	0	0	0	0	0

As illustrated in Tables 4.9 and 4.10, as well as in Figure 4.5 above, revenue, total assets and Tobin's Q were highly positively skewed and leptokurtic while the distribution of ROA bore a close resemblance to the normal distribution. All the DVs demonstrated positive skewness and kurtosis and were similar to the distribution of the IVs.

Table 4.11: Additional regression statistics

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Basic Salary	0.12	708	0	0.863	708	0
Benefits	0.39	708	0	0.173	708	0
Bonuses	0.244	708	0	0.655	708	0
Retention	0.522	708	0	0.193	708	0
Options	0.396	708	0	0.274	708	0

As seen in Table 4.11 above, all the DVs deviated significantly from the norm. However, normality of the DV was not a required assumption and it was important only to note that the residuals were normally distributed.

Table 4.12: Correlations: director remuneration variables versus company performance variables

Correlations

			TobinsQ
Spearman's rho	Basic Salary	Correlation Coefficient	-.229**
		Sig. (2-tailed)	0
		N	708
	Benefits	Correlation Coefficient	-0.015
		Sig. (2-tailed)	0.686
		N	708
	Bonuses	Correlation Coefficient	-.196**
		Sig. (2-tailed)	0
		N	708
	Retention	Correlation Coefficient	-.109**
		Sig. (2-tailed)	0.004
		N	708
	Options	Correlation Coefficient	0.004
		Sig. (2-tailed)	0.913
		N	708
	Total	Correlation Coefficient	-.239**
		Sig. (2-tailed)	0
		N	708

**. Correlation is significant at the 0.01 level (2-tailed).

Correlations

			ROA
Spearman's rho	Basic Salary	Correlation Coefficient	0.024
		Sig. (2-tailed)	0.526
		N	708
	Benefits	Correlation Coefficient	-0.061
		Sig. (2-tailed)	0.106
		N	708
	Bonuses	Correlation Coefficient	0.028
		Sig. (2-tailed)	0.455
		N	708
	Retention	Correlation Coefficient	-.158**
		Sig. (2-tailed)	0
		N	708
	Options	Correlation Coefficient	0.065
		Sig. (2-tailed)	0.085
		N	708
	Total	Correlation Coefficient	0.008
		Sig. (2-tailed)	0.834
		N	708

**. Correlation is significant at the 0.01 level (2-tailed).

Correlations

			Revenue
Spearman's rho	Basic Salary	Correlation Coefficient	.429**
		Sig. (2-tailed)	0
		N	708
	Benefits	Correlation Coefficient	.318**
		Sig. (2-tailed)	0
		N	708
	Bonuses	Correlation Coefficient	.176**
		Sig. (2-tailed)	0
		N	708
	Retention	Correlation Coefficient	0.022
		Sig. (2-tailed)	0.561
		N	708
	Options	Correlation Coefficient	.119**
		Sig. (2-tailed)	0.001
		N	708
	Total	Correlation Coefficient	.454**
		Sig. (2-tailed)	0
		N	708

**. Correlation is significant at the 0.01 level (2-tailed).

Correlations

			TotalAssets
Spearman's rho	Basic Salary	Correlation Coefficient	.428**
		Sig. (2-tailed)	0
		N	708
	Benefits	Correlation Coefficient	.249**
		Sig. (2-tailed)	0
		N	708
	Bonuses	Correlation Coefficient	.265**
		Sig. (2-tailed)	0
		N	708
	Retention	Correlation Coefficient	-.077*
		Sig. (2-tailed)	0.042
		N	708
	Options	Correlation Coefficient	.141**
		Sig. (2-tailed)	0
		N	708
	Total	Correlation Coefficient	.469**
		Sig. (2-tailed)	0
		N	708

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 4.13: Correlations: director remuneration variables

Correlations

			Revenue	TotalAssets	TobinsQ	ROA
Spearman's rho	Revenue	Correlation Coefficient	1			
		Sig. (2-tailed)	.			
		N	708			
	TotalAssets	Correlation Coefficient	.863**	1		
		Sig. (2-tailed)	0	.		
		N	708	708		
	TobinsQ	Correlation Coefficient	-.135**	-.180**	1	
		Sig. (2-tailed)	0	0	.	

The above tables, 4.12 and 4.13, showed that Tobin's Q was not correlated with any of the remuneration variables. Accordingly, Tobin's Q was not expected to contribute significantly to predicting any of the remuneration variables. In addition, ROA was not correlated with any of the remuneration variables and therefore it was not expected to contribute significantly to predicting any of the remuneration variables. These findings were contrary to the results of a study performed by De Wet (2012) as De Wet found a strong relationship between executive remuneration and ROA. This is a more traditional performance measure when examining JSE listed companies.

The study found a positive correlation between basic salary and revenue, between benefits and revenue as well as between total remuneration and revenue. Thus, it was expected to contribute to predicting basic salary and benefits. There was a positive correlation between basic salary and total assets as well as between total remuneration and total assets and thus this was expected to contribute to predicting basic salary and total remuneration.

Table 4.14: Correlations: relationship between the company performance variables

Correlations

			Revenue	TotalAssets	TobinsQ	ROA
Spearman's	Revenue	Correlation Coefficient	1			
		Sig. (2-tailed)	.			
		N	708			
	TotalAssets	Correlation Coefficient	.863**	1		
		Sig. (2-tailed)	0	.		
		N	708	708		

Table 4.14 illustrates that only revenue and total assets were correlated and that the correlation was strong enough to merit an investigation into problems with multicollinearity. This finding was in line with the results of research conducted by Scholtz and Smit (2012), who found a strong relationship between total assets and executive remuneration. However, the findings of this study were also contrary to the findings of their study as they also found a strong relationship between executive remuneration and turnover.

Table 4.15: Regression analysis

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.228[a]	0.052	0.047	1657437.504

a. Predictors: (Constant), ROA, Revenue, TobinsQ, TotalAssets

b. Dependent Variable: Basic Salary

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	105798058578320	4	26449514644580	9.628	.000[b]
	Residual	1931210653209420	703	2747099079957		
	Total	2037008711787740	707			

a. Dependent Variable: Basic Salary

b. Predictors: (Constant), ROA, Revenue, TobinsQ, TotalAssets

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2416426	111590.38		21.654	0	2197335	2635516
	Revenue	0	0	0.015	0.407	0.684	0	0
	TotalAssets	0	0	0.22	5.898	0	0	0
	TobinsQ	163375	142401.194	0.042	1.147	0.252	-116208	442957.6
	ROA	-4747	4336.49	-0.04	-1.095	0.274	-13261.3	3766.744

a. Dependent Variable: Basic Salary

As was evident in Table 4.15 above, when all the IVs were used to predict basic salary in a regression analysis, the results showed that only one of the IVs contributed significantly to the model (see Table 4.15 above). The model explains approximately 5% only of the variance. In addition, when basic salary was used as a DV the coefficient of at least one IV differed significantly from zero. As noted, only total assets made a significant contribution to the solution.

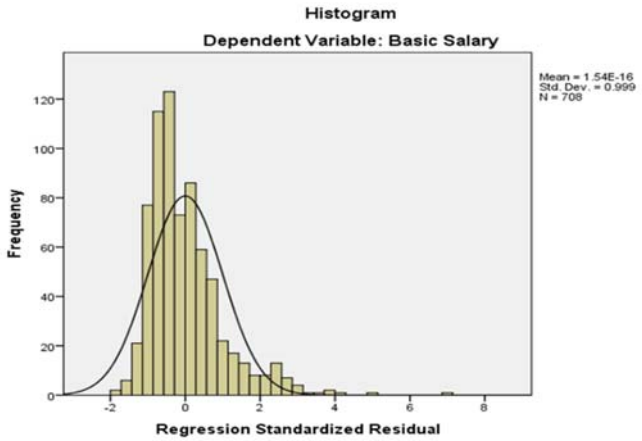


Figure 4.6: Graph depicting the regression of total assets only

Performing the regression with total assets only as IV resulted in the following output (see Figure 4.6 above). The residuals did not deviate significantly from the norm. However, when 'benefits' was changed to be the dependent variable approximately 1% only of the variance was explained by the model and, thus, the model was only marginally significant. Accordingly, only total assets make a significant contribution to the solution.

When bonuses were used as a DV, 'total assets' was once again the only significant predictor. Using retention, options and total remuneration as dependent variables did not provide viable models, as this explained approximately 4% only of the variation for retention while the 5% for total remunerations was not significant. Thus, the options model was not at all significant.

Using the GLM, which represents an analysis of variance (ANOVA) method, the set of IVs was linked to the set of DVs in order to identify possible relationships. The results of the individual regression analyses are illustrated in the GLM in Appendix D. The summary in Table 4.16 below clearly shows that total assets only was significantly related to director remuneration.

Table 4.16: Summary of the GLM

		Remuneration variables (DVs)					
		Basic Salary	Benefits	Bonuses	Retention	Options	Total
Performance Variables (IVs)	Revenue	x	x	x	x	Model not significant	x
	Total Assets	✔	✔	✔	✔		✔
	Tobin's Q	x	x	x	x		x
	ROA	x	x	x	a		x

4.5 Inferential tests

In view of the non-normality of the numeric variables, non-parametric methods were used to investigate the sub-research questions. Meeting attendance was not included in the inferential tests as the director matrix complied had revealed that all the directors had attended all the relevant meetings held and, thus, no comparison

would have been possible as it would have been if there had been directors who had not attended all the meetings.

4.5.1 Gender and remuneration

In order to determine whether gender had an effect on the remuneration variables, a Mann-Whitney U test was conducted with gender as the independent variable and the various remuneration variables as the dependent variables.

Table 4.17: Inferential tests: gender and remuneration

Test Statistics[a]

	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
Basic Salary	14435	16515	-3.956	0
Benefits	16928.5	19008.5	-2.36	0.018
Bonuses	19225.5	21305.5	-0.888	0.374
Retention	20083.5	227773.5	-0.861	0.389
Options	19779.5	21859.5	-0.695	0.487
Total	16145.5	18225.5	-2.86	0.004

a. Grouping Variable: Gender

Ranks

		Gender		
		Female	Male	Total
Basic Salary	N	64	644	708
	Mean Rank	258.05	364.09	
	Sum of Ranks	16515	234471	
Benefits	N	64	644	708
	Mean Rank	297.01	360.21	
	Sum of Ranks	19008.5	231977.5	
Bonuses	N	64	644	708
	Mean Rank	332.9	356.65	
	Sum of Ranks	21305.5	229680.5	
Retention	N	64	644	708
	Mean Rank	362.7	353.69	
	Sum of Ranks	23212.5	227773.5	

Options	N	64	644	708
	Mean Rank	341.55	355.79	
	Sum of Ranks	21859.5	229126.5	
Total	N	64	644	708
	Mean Rank	284.77	361.43	
	Sum of Ranks	18225.5	232760.5	

As shown in Table 4.17 above, the Mann-Whitney U test revealed that there was a significant mean rank difference in the following:

- Basic salary ($z = -3.956$, $p < .01$) between males ($n = 644 < MR = 364.09$) and females ($n = 64$, $MR = 258.05$), with males tending, on average, to be associated with a larger basic salary than females.
- Benefits ($z = -2.360$, $p < .05$) between males ($n = 644 < MR = 360.21$) and females ($n = 64$, $MR = 297.01$), with males tending, on average, to be associated with more benefits than females.
- Total ($z = -2.860$, $p < .01$) between males ($n = 644 < MR = 361.43$) and females ($n = 64$, $MR = 284.77$) with males tending, on average, to be associated with higher total remuneration than females (to be expected based on the previous two results).

4.5.2 Age and remuneration

In order to determine whether age had an effect on the remuneration variables, a Kruskal Wallis test was conducted with age as the independent variable and the various remuneration variables as the dependent variables.

Table 4.18: Inferential tests: age and remuneration

Ranks

	Age

		60+	51-60	41-50	31-40	Total
Basic Salary	N	43	251	279	105	678
	Mean Rank	366.60	380.66	338.16	233.58	
Benefits	N	43	251	279	105	678
	Mean Rank	418.01	387.17	337.00	200.04	
Bonuses	N	43	251	279	105	678
	Mean Rank	366.34	380.24	339.46	231.22	
Retention	N	43	251	279	105	678
	Mean Rank	328.93	341.70	333.06	355.69	
Options	N	43	251	279	105	678
	Mean Rank	355.47	347.88	348.99	287.70	
Total	N	43	251	279	105	678
	Mean Rank	362.79	382.52	345.79	210.40	

Test Statistics[a,b]

	Basic Salary	Benefits	Bonuses	Retention	Options	Total
Chi-Square	42.626	75.148	43.941	7.586	14.540	58.622
df	3	3	3	3	3	3
Asymp. Sig.	.000	.000	.000	.055	.002	.000

a. Kruskal Wallis Test
b. Grouping Variable: Age

As depicted in Table 4.18 above, the Kruskal Wallis test revealed that there were significant mean rank differences in all the remuneration variables with the exception of retention.

Table 4.19: Inferential tests: age and remuneration additional testing

	Age			
	60+	51-60	41-50	31-40
Basic Salary	2724023.3$_{a,b,c}$	2980621.5$_{a}$	2499390.5$_{b}$	1947147.8$_{c}$
Benefits	893883.7$_{a}$	931677.3$_{a}$	649674.0$_{a}$	247595.5$_{a}$
Bonuses	2417302.3$_{a}$	2143426.3$_{a}$	1697381.8$_{a}$	810565.6$_{b}$
Options	1109093.0$_{a}$	832091.6$_{a}$	1101283.2$_{a}$	360428.6$_{a}$
Total	7168348.8$_{a}$	6996645.4$_{a}$	5984862.2$_{a}$	3439972.3$_{b}$

Note: Values in the same row and sub table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column means. Cells with no subscript are not included in the test. Tests assume equal variances.[1]
1. Tests are adjusted for all pairwise comparisons within a row of each innermost sub table using the Bonferroni correction.

As indicated in Table 4.19 above, the IBM SPSS Statistics Custom Tables Module (t-tests with Bonferroni correction) was used as a post-hoc test to determine the specific age group pairs that differed significantly on average.

- 31 to 40 year old directors tended to receive smaller bonuses and total remuneration compared to directors who were 60 years or older.
- 31 to 40 year old directors tended to receive smaller basic salaries, bonuses and total remuneration compared to directors who were 51 to 60 years old.
- 31 to 40 year old directors tended to receive smaller basic salaries, bonuses and total remuneration compared to directors who were 41 to 50 years old.
- 41 to 50 year old directors tended to receive smaller basic salaries as compared to directors who were 51 to 60 years old.
- No pairwise differences were identified with regard to benefits and options, possibly as a result of the Bonferroni correction as well as their highly skewed distributions.

4.5.3 Race and remuneration

Table 4.20: Inferential tests: race and remuneration

Ranks

		Race			
		Black	Coloured/Indian	White	Total
Basic Salary	N	53	49	606	708
	Mean Rank	300.21	328.96	361.31	
Benefits	N	53	49	606	708
	Mean Rank	411.68	385.74	346.97	
Bonuses	N	53	49	606	708
	Mean Rank	387.29	399.49	347.99	
Retention	N	53	49	606	708
	Mean Rank	400.47	335.5	352.02	
Options	N	53	49	606	708
	Mean Rank	329.27	369.09	355.53	

Total	N	53	49	606	708
	Mean Rank	340.1	362.82	355.09	

Test Statistics [a,b]

	Chi-Square	df	Asymp. Sig.
Basic Salary	5.171	2	0.075
Benefits	6.118	2	0.047
Bonuses	4.369	2	0.113
Retention	20.914	2	0
Options	1.837	2	0.399
Total	0.349	2	0.84

a. Kruskal Wallis Test b. Grouping Variable: Race

As indicated in Table 4.20 above, the Kruskal Wallis test revealed that there was a significant mean rank difference in retention and benefits (only marginally) among the race groups. However, bearing in mind that 95% of the director-years had a value of zero (highly skewed distribution); this result should not be interpreted further.

Table 4.21: Inferential tests: race and remuneration additional testing

	Race		
	Black	Coloured/Indian	White
Benefits	836493.5$_a$	729073.6$_a$	670791.8$_a$

Note: Values in the same row and sub table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column means. Cells with no subscript are not included in the test. Tests assume equal variances.[1]
1. Tests are adjusted for all pairwise comparisons within a row of each innermost sub table using the Bonferroni correction.

As shown in Table 4.21 above, the IBM SPSS Statistics Custom Tables Module (t-tests with Bonferroni correction) was used as a post-hoc test to determine the specific race group pairs that differed significantly on average. However, no significant pairs were identified, possibly as a result of the Bonferroni correction.

4.5.4 Education and remuneration

Table 4.22: Inferential tests: education and remuneration

Ranks

		Educational qualification					
		CA(SA)	MBA/CFA/PHD	Bcom/BSc/LLB/BA	Diploma or other	Not disclosed/ No degree	Total
Basic Salary	N	363	31	211	30	73	708
	Mean Rank	329.19	445.74	381.05	314.45	381.34	
Benefits	N	363	31	211	30	73	708
	Mean Rank	322.37	473.90	364.52	367.78	429.12	
Bonuses	N	363	31	211	30	73	708
	Mean Rank	340.33	417.11	383.84	231.37	364.19	
Retention	N	363	31	211	30	73	708
	Mean Rank	353.05	358.21	360.48	372.35	335.50	
Options	N	363	31	211	30	73	708
	Mean Rank	353.79	390.32	351.44	289.87	378.24	
Total	N	363	31	211	30	73	708
	Mean Rank	328.56	457.27	382.09	255.58	400.73	

Test Statistics[a,b]

	Basic Salary	Benefits	Bonuses	Retention	Options	Total
Chi-Square	17.694	29.926	20.130	6.999	8.547	28.251
df	4	4	4	4	4	4
Asymp. Sig.	.001	.000	.000	.136	.073	.000

a. Kruskal Wallis Test
b. Grouping Variable: Educational qualification

As illustrated in Table 4.22 above, the Kruskal Wallis test revealed that there were significant mean rank differences between the various educational level groups as regards basic salary, benefits and bonuses and, thus total remuneration.

Table 4.23: Inferential tests: education and remuneration additional testing

	Educational qualification				
	CA(SA)	MBA/CFA/PHD	Bcom/BSc/LLB/ BA	Diploma or other	Not disclosed/ No degree
Basic Salary	2332558.7$_{a}$	3243903.2$_{b}$	2854991.1$_{b}$	2335333.3$_{a,b}$	2738301.4$_{a,b}$
Benefits	615689.4$_{a}$	616612.9$_{a}$	761314.3$_{a}$	408800.0$_{a}$	973246.6$_{a}$
Bonuses	1433834.5$_{a,c}$	1967419.4$_{a,b}$	2148696.7$_{b}$	563766.7$_{a}$	2187616.4$_{b,c}$
Total	5102995.5$_{a}$	6896096.8$_{a,b}$	7080510.4$_{b}$	3827966.7$_{a,b}$	6726904.1$_{a,b}$

Note: Values in the same row and sub table not sharing the same subscript are significantly different at p< .05 in the two-sided test of equality for column means. Cells with no subscript are not included in the test. Tests assume equal variances.[1]
1. Tests are adjusted for all pairwise comparisons within a row of each innermost sub table using the Bonferroni correction.

As shown in Table 4.23 above, the IBM SPSS Statistics Custom Tables Module (t-tests with Bonferroni correction) was used as a post-hoc test to determine the specific age group pairs that differed significantly on average. It was found that:

- The CA (SA) educational group tended to receive lower basic salaries as compared to the MBA/CFA/PHD and BCom/BSc/LLB/BA groups.
- The CA (SA) educational group also tended to receive lower bonuses and total remuneration compared to the BCom/BSc/LLB/BA group.
- The diploma or other educational group tended to receive lower bonuses as compared to both the BCom/BSc/LLB/BA and the non-disclosed education groups.
- No pairwise differences were identified with regard to benefits, because of both the highly skewed distribution and the Bonferroni correction.

4.5.4 Tenure and remuneration

Table 4.24: Inferential tests: tenure and remuneration

		Length of directorship					
		20 years and greater	16-20 years	11-15 years	6-10 years	1-5 years	Total
Basic Salary	N	32	45	109	190	332	708
	Mean Rank	394.08	407.54	391.99	391.66	309.92	
Benefits	N	32	45	109	190	332	708
	Mean Rank	316.05	364.29	382.55	349.83	350.34	
Bonuses	N	32	45	109	190	332	708
	Mean Rank	235.67	357.24	350.12	390.06	346.67	
Retention	N	32	45	109	190	332	708
	Mean Rank	335.50	343.02	344.94	358.04	359.00	
Options	N	32	45	109	190	332	708
	Mean Rank	314.25	318.67	344.06	360.12	363.44	
Total	N	32	45	109	190	332	708
	Mean Rank	299.41	379.82	374.37	396.93	325.57	

Test Statistics[a,b]

	Basic Salary	Benefits	Bonuses	Retention	Options	Total
Chi-Square	29.933	3.527	17.178	5.725	6.319	18.861
df	4	4	4	4	4	4
Asymp. Sig.	.000	.474	.002	.221	.177	.001

a. Kruskal Wallis Test
b. Grouping Variable: Length of directorship

As shown in Table 4.24 above, the Kruskal Wallis test revealed that there were significant mean rank differences in basic salary, bonuses and total remuneration between the different tenure groups.

Table 4.25: Inferential tests: tenure and remuneration additional testing

	Length of directorship				
	20 years and greater	16-20 years	11-15 years	6-10 years	1-5 years
Basic Salary	2657437.5$_{a,b}$	3188177.8$_{a}$	2952559.3$_{a}$	2773666.7$_{a}$	2235865.3$_{b}$
Bonuses	582437.5$_{a}$	2191022.2$_{b}$	1817173.1$_{a,b}$	1987223.5$_{b}$	1561980.7$_{a,b}$
Total	3746312.5$_{a}$	6253955.6$_{a,b}$	5901041.2$_{a,b}$	7424316.6$_{b}$	5153353.7$_{a}$

Note: Values in the same row and sub table not sharing the same subscript are significantly different at $p < .05$ in the two-sided test of equality for column means. Cells with no subscript are not included in the test. Tests assume equal variances.[1]
1. Tests are adjusted for all pairwise comparisons within a row of each innermost sub table using the Bonferroni correction.

As indicated in Table 4.25 above, the IBM SPSS Statistics Custom Tables Module (t-tests with Bonferroni correction) was used as a post-hoc test to determine the specific age group pairs that differed significantly on average. It was found that:

- The 1 to 5 year group tended to receive lower basic salaries compared to the 16 to 20 year group.
- The 1 to 5 year group also tended to receive lower total remuneration compared to the 6 to 10 year group.
- The 20 years or more group tended to receive lower bonuses compared to both the 6 to 10 and the 16 to 20 year groups.

- The 20 years or more group also tended to receive lower total remuneration as compared to the 6 to 10 year group.

4.6 Conclusion

Individual regression models were constructed to examine the relationship between director remuneration and company performance for South African companies listed on the JSE. The regressions performed were in line with those carried out in previous studies conducted by Scholtz and Smit (2012) and De Wet (2012). A general linear model was then constructed. This model confirmed the results of the individual regression models, showing that only the total assets variable, as used as one of the company performance variables, had a significant impact on director remuneration. The next chapter summarises the results of the study as compared to the results of previous studies and concludes the study.

CHAPTER 5

Summary and Conclusions

The principal–agent problem and moral hazard are both at the heart of the corporate governance debate and the separation of ownership and control in firms (Jensen and Meckling, 1976). Directors are employed by shareholders to manage and control a company's resources on the shareholders' behalf (Amess and Drake, 2003). The agency relationship allows directors to indulge in opportunistic behaviour that serves their own interests and not necessarily those of the shareholders (Amess and Drake, 2003). It was in light of this that the researcher perceived a need to conduct research into the relationship executive director remuneration and company performance.

5.1 Summary of the research paper

This research study examined the relationship between the executive director remuneration and company performance of all listed public firms on the JSE from 2010 to 2014. This study was in line with similar research conducted by Scholtz and Smit (2012) on the Alternative Exchange in South Africa and by Theku (2014) who focused on the mining industry in South Africa.

Chapter 1 introduced the study, while chapter 2 contained a review of relevant literature. Chapter 2 also explained the agency theory and its link to corporate governance and, thus, its relevance to this report, as well as the requirements of the King Reports, especially King III, and the requirements of the Companies Act and the JSE. This was followed by an explanation of the link between corporate governance

and company performance. The latter part of the chapter discussed director profiles and the components of executive remuneration.

Chapter 3 discussed the main research question as well as the sub-questions. The chapter then discussed the research methodology used in the study, including the use of a regression model and the research methods applied. The issues of validity and reliability were also discussed, as were the assumptions, limitations and delimitations of the study.

Chapter 3 also discussed and explained the population and the sample used in the study and the data collection methods employed, including the director profile matrix that was created. The chapter further explained the analysis of the data and delineated the period that had been defined for the purposes of the study. The study was limited to JSE listed firms for the period from 2010 to 2014. The sample size for study comprised 49 companies across five years, while 708 director records were examined across these five years.

Chapter 4 discussed the research findings, including an explanation of the descriptive statistics conducted, the regression diagnostics and the results of the linear regression model.

5.2 Summary of results

5.2.1 Main research question

The regression results did not provide support for the proposition that there was a positive and significant relationship between director remuneration and company performance for South African companies listed on the JSE. Only 'total assets', which was selected as one of the variables, displayed a significant positive relationship between director remuneration and company performance. This result is consistent with the findings of Scholtz and Smit (2012) and De Wet (2012). Previous research (Scholtz and Smit, 2012; De Wet, 2012) has shown that Tobin's Q and ROA are good measures of company performance. The study showed that ROA only had a significant relationship with the retention remuneration variable, while Tobin's Q was not related to director remuneration in any way. These results are consistent with the findings of studies conducted by Bradley (2013) and Girma et al. (2003) in the UK.

Thus, three of the key variables for company performance, namely, Tobin's Q, ROA and revenue, did not display a positive, significant relationship with director remuneration, while total assets was significantly positively related to director remuneration. However, it must be noted that the study was subject to limitations regarding the definition of the term 'director remuneration'. The results may have been different if the variables had been extended to include long-term incentives or options, or to include other company performance variables such as share price at financial year-ends.

5.2.2 Sub-research questions

The Mann-Whitney U test, which was used to investigate whether there, was a relationship between the gender of directors and executive remuneration, revealed that, on average, males tended to be associated with a larger basic salary as compared to females as well as with better benefits. This led to the conclusion that, in general, male directors in South Africa enjoy a better total remuneration package compared to their female counterparts.

The Kruskal Wallis, which was used as a tool to investigate the relationship between the age of directors and executive director remuneration, revealed that there were significant mean rank differences between all the remuneration variables except for retention. It also revealed that directors who were older, usually 50 plus and are close to retirement, earned a better total remuneration than their younger counterparts did.

This result is consistent with the results of a similar study conducted by Bradley (2013) and which found that bonuses were positively correlated to age and that, as the age of executive directors' increased year on year, so did the average bonus amount paid to these directors. This study found the same relationship in terms of which directors who were older than 60, and the results showed that they earned a better bonus then those who were younger.

The Kruskal Wallis test, which used to examine the relationship between the race of directors and executive remuneration, revealed that there was a significant mean rank difference in retention and benefits (only marginally) between the race groups. It must be noted, however, that 95% of the director years displayed a highly skewed distribution. These results were, therefore, not interpreted and they were rejected. Accordingly, the conclusion was drawn that there was no real relationship between the race of directors and executive director remuneration.

The Kruskal Wallis test, which was used to examine the relationship between executive remuneration and director qualification, revealed that there were significant mean rank differences in basic salary, benefits, bonuses and, thus, also total remuneration between the different educational level groups. The study found that directors with CAs tended to earn less than those with a general BCom degree while those with a diploma or other qualification earned less than those directors whose educational qualification was not disclosed.

The Kruskal Wallis test, which was also used to examine the relationship between director remuneration and tenure, revealed that there were significant mean rank differences in basic salary, bonuses and, thus, also total remuneration between the different tenure groups. The results showed that directors who had served on boards for a period of between 6 and 10 years tended to earn a greater total remuneration as compared to any other category.

The above findings are consistent with the results of a recent study conducted by Bradley (2013) that found that bonuses were negatively correlated to executive and, more specifically, CEO remuneration. This implied that bonuses did not increase over time because of the increased experience of executive directors (Bradley, 2013). This study provided similar evidence as it was found that directors with tenure of greater than 20 years tended to earn lower bonuses then those with tenure of between 6 and 20 years.

The final sub-question on the relationship between directors who attended all compulsory meetings and executive director remuneration was not examined as the data collected had indicated that all the directors had attended all mandatory meetings as required.

5.3 Recommendations and conclusions

It would seem that the results of the study indicate the lack of a correlation between executive director remuneration and company performance for publically listed South African companies. However, the results of the regression provided empirical support for the proposition that a significant positive relationship existed between director remuneration and total assets.

The results showed that there was no significant relationship between director remuneration and company performance on an overall level. This finding was consistent with the findings of previous studies conducted in South Africa by Bradley (2013) as well as those of a UK based study performed by Girma et al. (2003). As

mentioned by Bradley (2013), this would seem to suggest that any attempts to align the interests of executives and shareholders through executive remuneration have been unsuccessful thus far.

De Wet (2012), who conducted a study based on the Johannesburg AltX, mentioned in his concluding remarks that South African companies are facing the challenge of embracing the notion of stakeholder wealth creation in their objective both to ensure that the performance of executives is measured fairly and that these executives are remunerated appropriately. However, this was found not to be the case in a study conducted by Bradley (2013) on sectors of the JSE listed companies a year after De Wet's study. Bradley (2013) found that the attempts by these companies to use executive pay to mitigate the conflict of interest between stakeholders and executive directors had failed. The findings of this research paper, which focused on all JSE listed companies during 2014, were consistent with Bradley's findings.

Bradley (2013) mentioned that there was nothing to suggest that it would not be possible to link pay to performance in South Africa. However, in order to maximise executive performance and to limit the conflict of interests between executives and stakeholders, it may be that certain targets would need to be met. These targets included a company putting in place a suitable method of measuring performance and ensuring a clear and understandable link between company performance and executive remuneration.

King III notes that shareholders are ultimately responsible for the composition of the board. It is in their own interests to ensure that the board is properly constituted with regard to both skill and representivity. The procedures in respect of appointments to the board should be formal and transparent and should be a matter for the board as a whole, assisted by the nomination committee, and subject to shareholder approval (IOD, 2009). Thus, the targets as cited by Bradley (2013) should be implemented by the shareholders, while these remuneration methods should be made transparent all parties involved. In addition, the concept of sound company performance should be clearly defined (Bradley, 2013).

The above suggestions of Bradley (2013) are in line with good corporate governance measures as well as the IOD's (2009) suggestion that a board or the shareholders should establish a formal induction programme to familiarise incoming directors with the company's operations, its business environment, and the sustainability issues relevant to its business. An article published by Deloitte (2013) further suggests that, in addition, the programme should ensure that incoming directors are introduced to the members of senior management and familiarised with their respective roles and duties.

This induction programme should meet the specific needs of both the company and the individuals involved simultaneously and should make it possible for new directors to make a positive contribution timeously (IOD, 2009). In order to achieve this mentorship on the part of experienced directors is encouraged (Deloitte, 2013). As mentioned above, the advantages of formulating a sound programme would help to

ensure that the interests of stakeholders and management were aligned as well as create a powerful tool for attracting and retaining talented executives (Bradley, 2013).

5.4 Suggestions for future research

The results of the study may have been be influenced by the limitations as discussed in section 3.4 of this report. However, this does create opportunities for future research.

As a result of data availability and time constraints, the study was limited to JSE listed companies. Accordingly, there is need to expand future research to include the government-owned sectors, to carry out further comparisons of remuneration packages or extend the testing to other countries and stock exchanges in order to enable significant comparisons to be made. Future studies could also measure the impact of director remuneration on company performance in countries with different corporate governance legislation and requirements as compared to South Africa. Governance needs differ for companies operating in different socio-political and economic conditions while the various remuneration policies should also be taken into account.

This study excluded long-term stock options data because of the research time constraints and related date accessibility challenges. This resulted in only options as disclosed in the annual financial statements being examined. The study also did not

take into account director experience in an industry or the industry knowledge of the director – both of which may have affected significantly on the findings. In addition, the study did not take into account other firm performance variables such as share price at year-end, average share price for the year as well as EBITDA. Research could also be conducted on certain groupings of companies on the JSE and a comparison made between various groups if companies, for example mining versus financial or agricultural versus mining.

This research report also did not take into account changes in directors during the year and this is an aspect, which could be explored, in future research. The research also took into account director-years only as a basis for the statistics whereas a comparison may also be done between director-years and company-years. The research also focused on executive directors only and, thus, similar future research could focus on a comparison between executive and non-executive directors.

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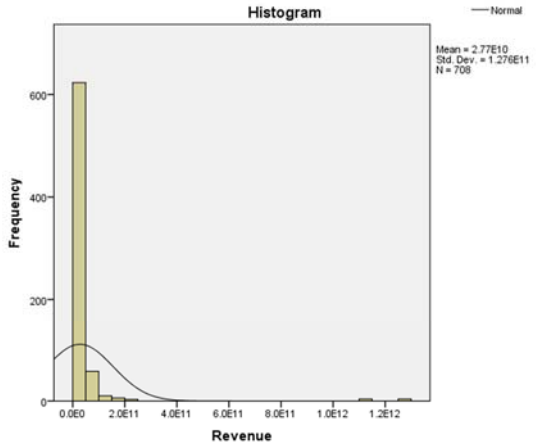
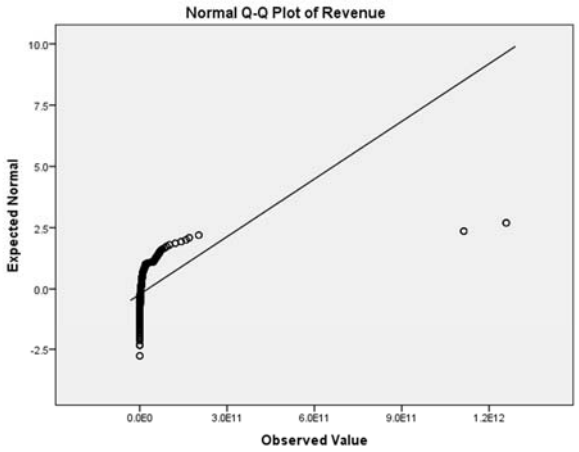
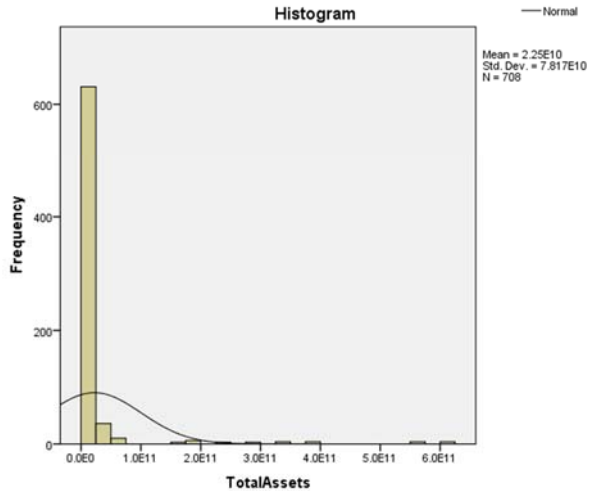
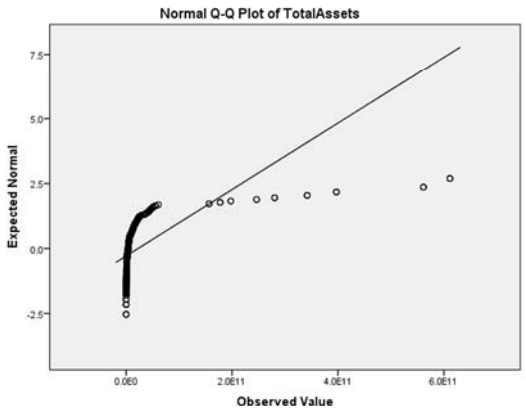
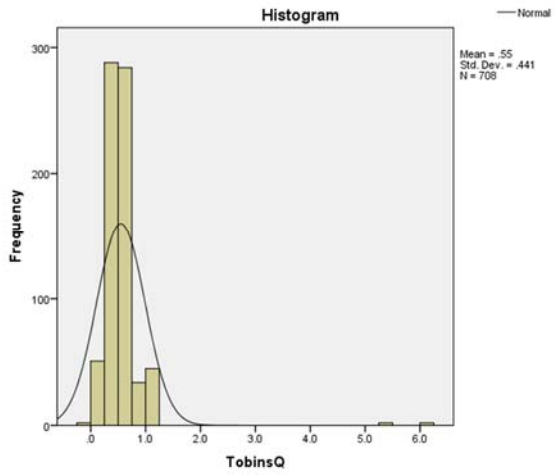
Appendix A – Company performance variable graphs

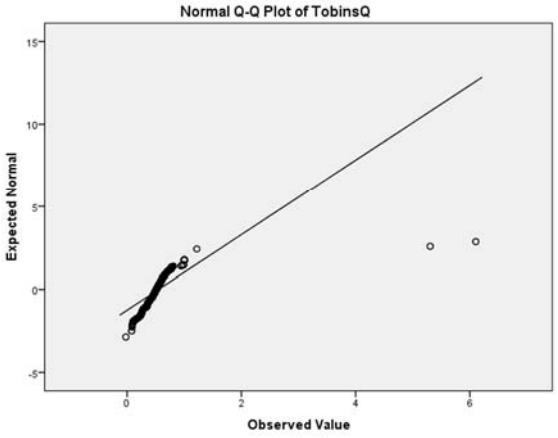




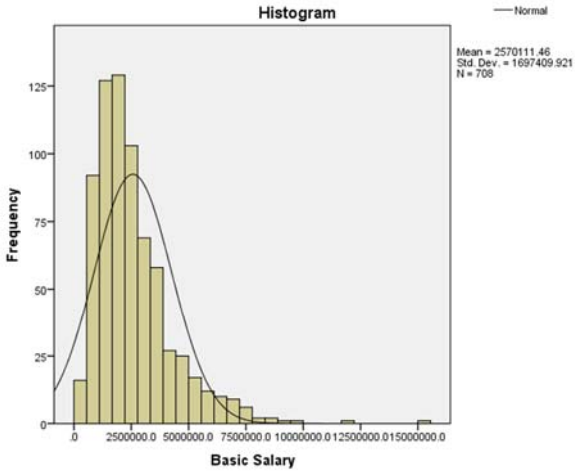


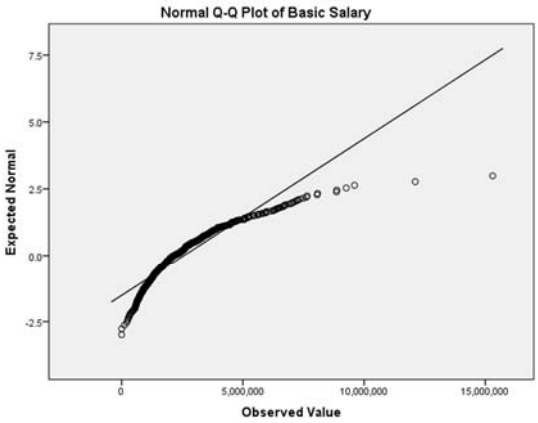


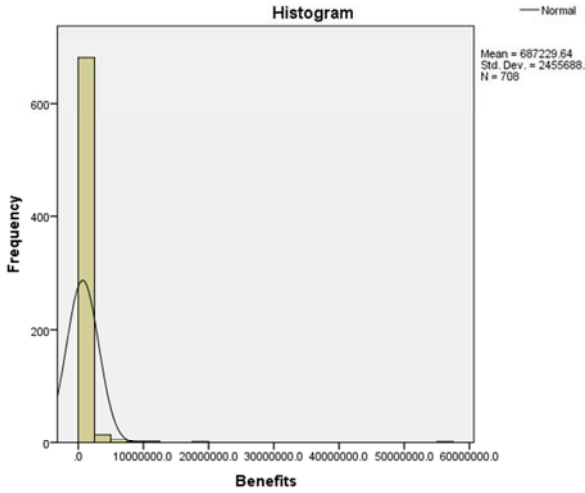


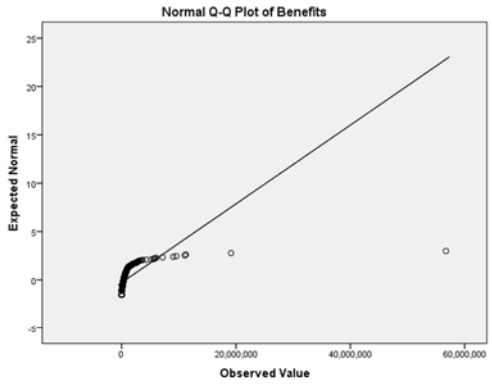


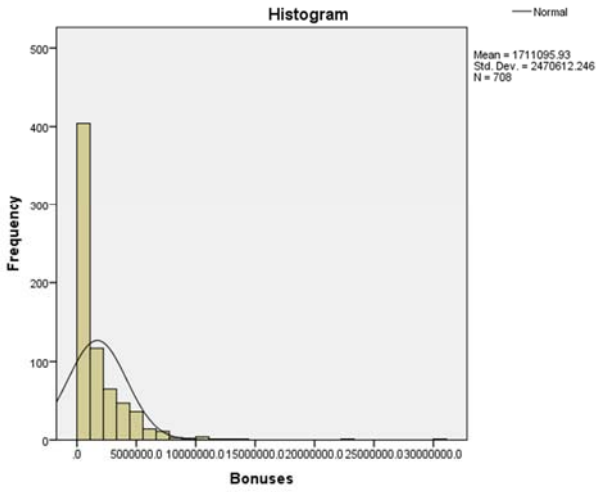
Appendix B – Director Remuneration variable graphs

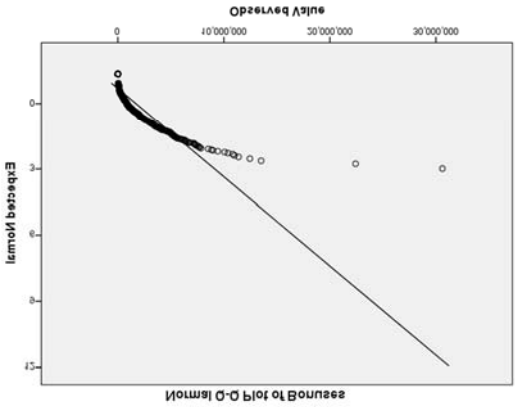


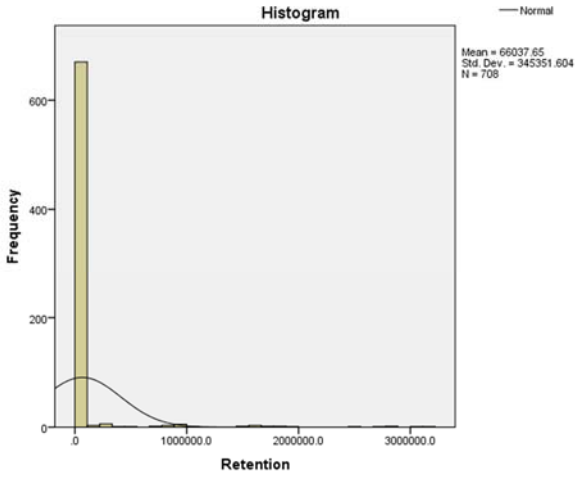








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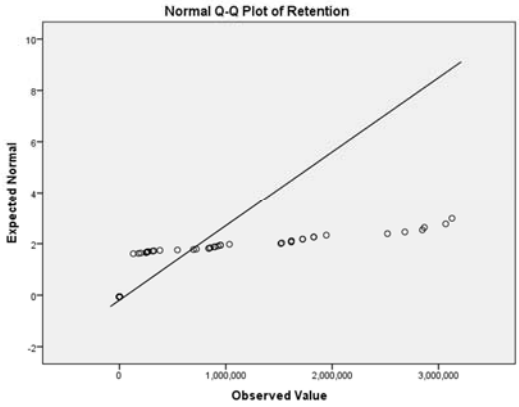
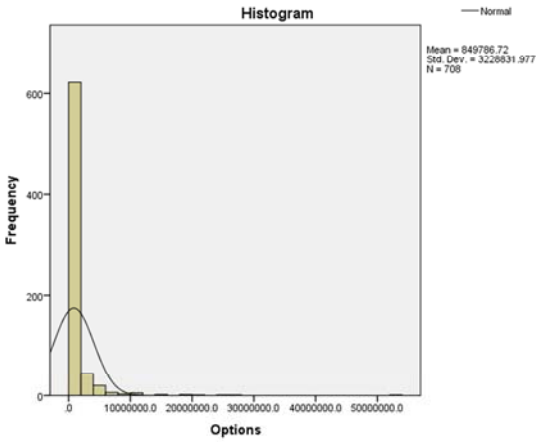
N = 708
Frequency
Retention


Normal Q-Q Plot of Retention
Expected Normal
Observed Value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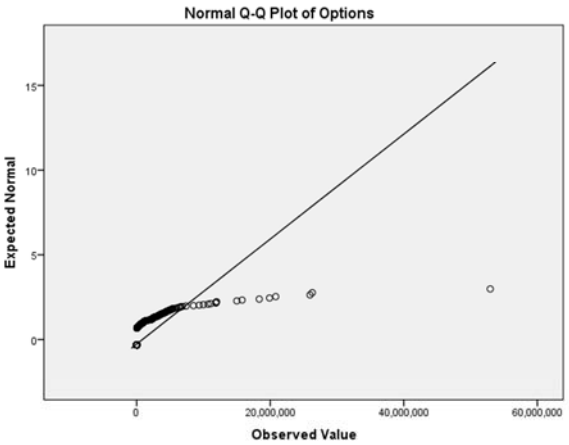
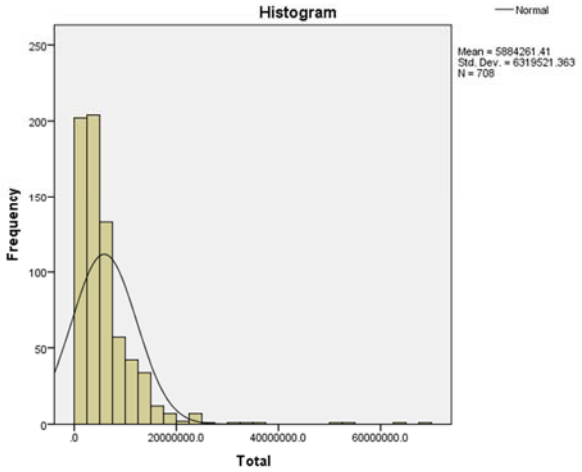
Frequency
Options


Normal Q-Q Plot of Options
Expected Normal
Observed Value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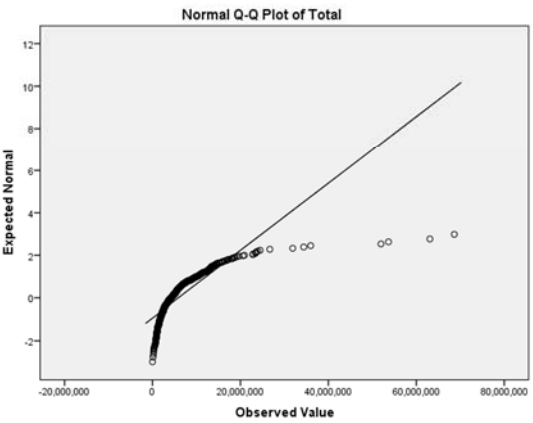
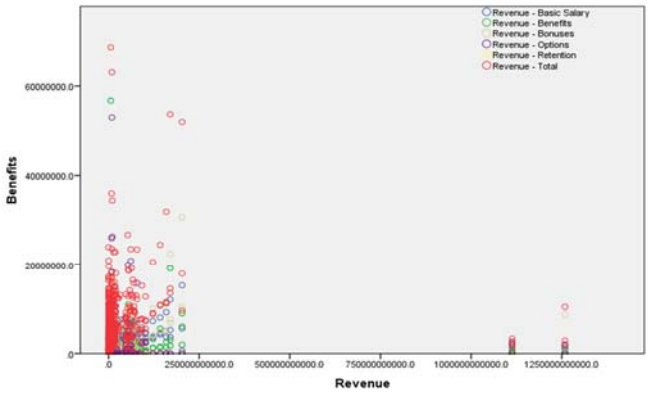
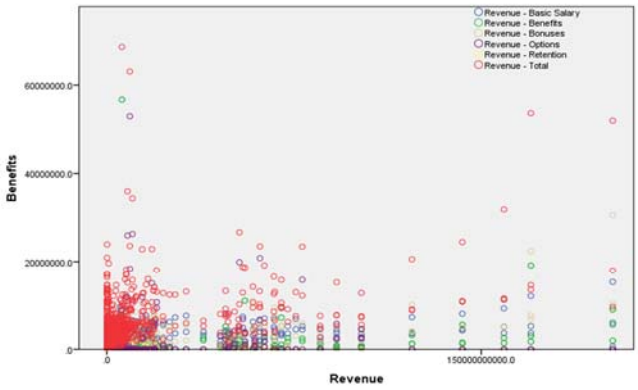
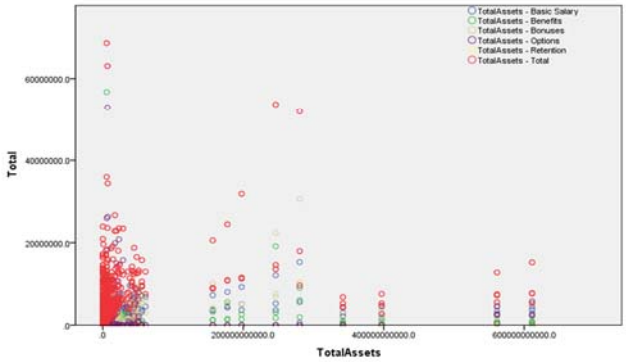
Frequency
Total

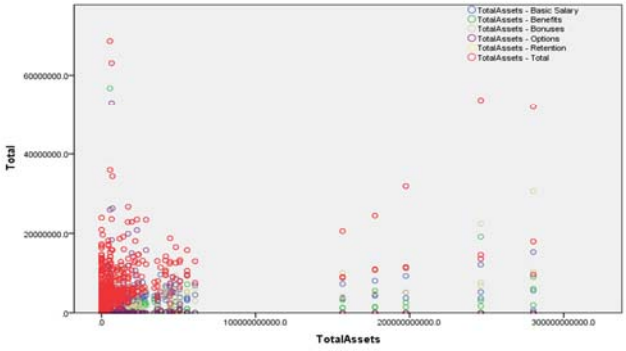

Normal Q-Q Plot of Total
Expected Normal
Observed Value

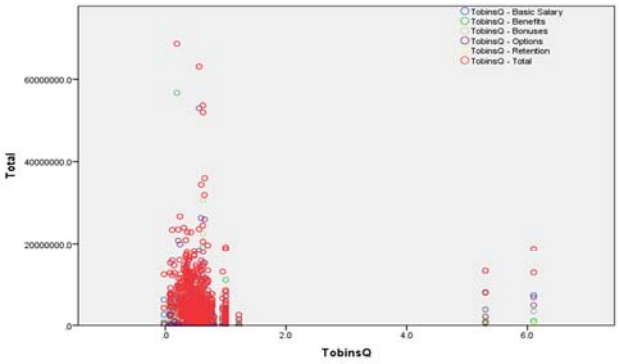
Appendix C– Linear relationship of variables

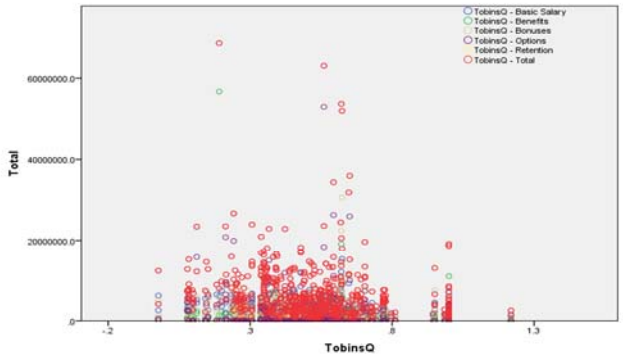


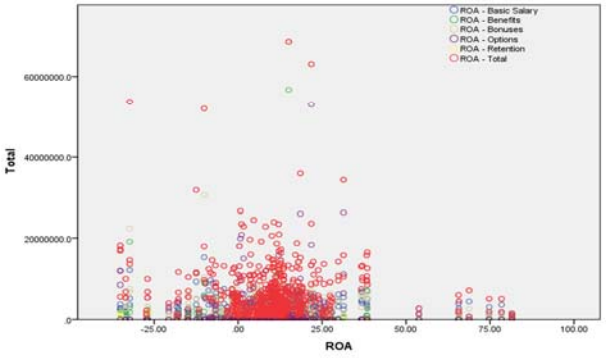












Appendix D– General Linear Model

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	Basic Salary	1057980585778317.750[a]	4	2.64495E+13	9.628	0
	Benefits	626771488778891.000[b]	4	1.56693E+13	2.622	0.034
	Bonuses	252348922902984.000[c]	4	6.30872E+13	10.915	0
	Retention	3389898540566.703[d]	4	8.47475E+11	7.361	0
	Options	213975935657757.000[e]	4	5.3494E+12	0.512	0.727
	Total	1279293031727600.000[f]	4	3.19823E+14	8.341	0
Intercept	Basic Salary	1.28815E+15	1	1.28815E+15	468.914	0
	Benefits	1.14954E+14	1	1.14954E+14	19.237	0
	Bonuses	5.865E+14	1	5.865E+14	101.476	0
	Retention	4.28309E+12	1	4.28309E+12	37.204	0
	Options	9.81292E+13	1	9.81292E+13	9.387	0.002
	Total	6.85681E+15	1	6.85681E+15	178.824	0
Revenue	Basic Salary	4.54097E+11	1	4.54097E+11	0.165	0.684
	Benefits	4.32281E+12	1	4.32281E+12	0.723	0.395
	Bonuses	1.14928E+13	1	1.14928E+13	1.988	0.159
	Retention	42893248283	1	42893248283	0.373	0.542
	Options	2.73568E+12	1	2.73568E+12	0.262	0.609
	Total	1.83357E+13	1	1.83357E+13	0.478	0.489
TotalAssets	Basic Salary	9.55771E+13	1	9.55771E+13	34.792	0
	Benefits	3.69603E+13	1	3.69603E+13	6.185	0.013
	Bonuses	2.03227E+14	1	2.03227E+14	35.162	0
	Retention	2.84356E+11	1	2.84356E+11	2.47	0.116
	Options	7.5982E+12	1	7.5982E+12	0.727	0.394
	Total	1.04554E+15	1	1.04554E+15	27.268	0
TobinsQ	Basic Salary	3.61592E+12	1	3.61592E+12	1.316	0.252
	Benefits	2.36912E+11	1	2.36912E+11	0.04	0.842
	Bonuses	1.47193E+11	1	1.47193E+11	0.025	0.873
	Retention	1.74162E+11	1	1.74162E+11	1.513	0.219
	Options	1.40314E+13	1	1.40314E+13	1.342	0.247
	Total	1.90069E+13	1	1.90069E+13	0.496	0.482

ROA	Basic Salary	3.29221E+12	1	3.29221E+12	1.198	0.274
	Benefits	1.25732E+13	1	1.25732E+13	2.104	0.147
	Bonuses	1.01295E+13	1	1.01295E+13	1.753	0.186
	Retention	2.92221E+12	1	2.92221E+12	25.383	0
	Options	1.5102E+11	1	1.5102E+11	0.014	0.904
	Total	1.13232E+14	1	1.13232E+14	2.953	0.086
Error	Basic Salary	1.93121E+15	703	2.7471E+12		
	Benefits	4.20082E+15	703	5.97556E+12		
	Bonuses	4.06313E+15	703	5.7797E+12		
	Retention	8.09324E+13	703	1.15124E+11		
	Options	7.34933E+15	703	1.04542E+13		
	Total	2.69557E+16	703	3.83438E+13		
Total	Basic Salary	6.71368E+15	708			
	Benefits	4.59788E+15	708			
	Bonuses	6.38839E+15	708			
	Retention	8.74099E+13	708			
	Options	7.882E+15	708			
	Total	5.27492E+16	708			
Corrected Total	Basic Salary	2.03701E+15	707			
	Benefits	4.2635E+15	707			
	Bonuses	4.31547E+15	707			
	Retention	8.43223E+13	707			
	Options	7.37073E+15	707			
	Total	2.8235E+16	707			

a. R Squared = .052 (Adjusted R Squared = .047)

b. R Squared = .015 (Adjusted R Squared = .009)

c. R Squared = .058 (Adjusted R Squared = .053)

d. R Squared = .040 (Adjusted R Squared = .035)

e. R Squared = .003 (Adjusted R Squared = -.003)

f. R Squared = .045 (Adjusted R Squared = .040)