

# **Gordon Institute of Business Science**

University of Pretoria

## **The Relationship between Non-Executive Directors' Remuneration and Financial Performance of Companies Listed under the Financial Sector of the Johannesburg Stock Exchange**

Ryan Prettirajh

15388281

A research project submitted to the Gordon Institute of Business Science, University of  
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### **Contact Details:**

Cell: 082 490 2881

Email: [15388281@mygibs.co.za](mailto:15388281@mygibs.co.za)

## Abstract

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The role of the Non-Executive Director (NED) has been questioned after many corporate collapses globally. NEDs in line with corporate governance codes bring independence to the board which should enhance monitoring as well as experience and distinguished networks that should benefit firm performance. Literature identified that NED remuneration has not had in-depth research conducted about it and that there was a lack of research about corporate governance issues in a South African context. The study investigates the NED remuneration and its impact on company performance in the financial services sector in South Africa.

A quantitative study was performed on secondary data gathered over a ten year period (2006 – 2015) for NED remuneration and company performance measures. Company performance was measured by selected accounting metrics, ROA and ROE, and market metrics Tobin's Q and EVA. Correlation analysis was performed to determine if a relationship existed.

It was found that there is a positive relationship between NED remuneration and company performance measured by accounting metrics and that there was no relationship between NED remuneration and company performance measured by market metrics. This indicates that investors do not place value on NED remuneration and the impact it has on improving firm value.

### **Key Words:**

Non-Executive Director, Remuneration and Company Performance

## Declaration

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

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Ryan Prettirajh

7 November 2016

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## List of Abbreviations

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NED - Non-Executive Director

ABIL - African Bank Limited

ROA - Return on Assets

ROE - Return on Equity

EVA - Economic Value Added

## Chapter 1: Introduction

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### 1.1 Research Title

“The Relationship between Non-Executive Directors’ Remuneration and Financial Performance of Companies Listed under the Financial Sector of the Johannesburg Stock Exchange.”

### 1.2 Why was this problem selected?

There has been substantial research conducted on the link between Chief Executive Officer remuneration and firm performance conducted in different economic industries and environments around the world as well as in South Africa (Aggarwal & Ghosh, 2015; Hillman & Dalziel, 2003; Kumar & Zattoni, 2013; Scholtz & Smit, 2012). These researchers do not specifically review the relationship, if any, between Non-Executive Director (NED) remuneration and company performance. Hahn and Lasfer (2010) described NED Remuneration as having little research conducted with a lot of unanswered questions.

With the emergence of governance codes worldwide to promote transparency and ensure protection of shareholder value, King III, South Africa’s corporate governance framework requires that boards of listed companies in South Africa have a majority of NEDs. NEDs should possess experience, expertise and provide a variety of skills to enhance strategic and operational decisions taken as stated in resource dependency theory (Hillman & Dalziel, 2003). They also offer a monitoring mechanism at board level of a company (Goh & Gupta, 2015), which lowers the agency costs as per agency theory (Fama, 1980; Fama & Jensen, 1983).

There have been many studies about corporate governance in developed markets as well as the emerging markets of South America, Asia, Australasia and Europe, however there has been little research about corporate governance and related elements in Africa (Ntim, 2013). An important element of corporate governance is remuneration of company directors. This has been largely neglected in corporate governance frameworks however King IV seeks to address this topical issue by emphasising the importance of both executive and NED remuneration and further outlined greater governance mechanisms around it (Deloitte, 2016).

There have been many prominent company failures globally over the last decade and this has led to questions about corporate governance effectiveness. Researchers have subsequently increased studies into corporate governance elements to understand its impact (Pamburai, Chamisa, Abdulla, & Smith, 2015). South Africa, like other countries, has experienced corporate failures over the last decade. It was relatively fewer than many other global counterparts and South African corporates made it through the 2007 – 2009 global financial crisis largely unscathed. However there were two major financial institutional collapses in the last 10 years, Fidentia Asset Management in 2007 and African Bank (ABIL) in 2014. Financial intuitions tend to manage others' money and these collapses lead to great losses for individuals and corporates who have money invested with these firms.

Fidentia Asset Management grew exponentially between 2004 and 2006 through an aggressive acquisition strategy. Through acquisitions Fidentia managed the Mineworkers Provident Fund assets of R1.2 billion. The provident fund services widows and orphans of deceased miners. As they grew, the company profile gained prominence in the industry and they secured an investment from the Transport Education Training Authority worth R200 million. This was secured by promising higher returns than was offered by other institutions. Fidentia was however placed under curatorship in February 2007 after an application to the court by the Financial Services Board. The Financial Services Board could not trace almost R700 million worth of assets (Steenkamp & Malan, 2009).

It was revealed during the investigation that corporate governance practices were almost non-existent. Staff, including executives were paid large amounts of money, Fidentia over paid for assets procured and staff enjoyed state of the art facilities, including a free restaurant style canteen and a gym in their offices with personal trainers. James Arthur Brown performed the duties of chief executive officer and chairman and had unlimited power. This led to him using company funds for personal assets and expenses. Fidentia's accounting records were inaccurate and accounting records had not been published since February 2004. Fidentia was not listed and did not have to comply with King II. There were many other red flags with regards to inadequate governance that were prominent and the regulators should have intervened sooner before close to billion rand of investors' money was lost (Steenkamp & Malan, 2009).

Stakeholders also questioned the role of the NEDs during the financial collapse of ABIL in 2014. The NED had a responsibility as independents to protect shareholder value by monitoring and advising the board. The NEDs should have warned management about

the pending financial difficulties. Bonorchis and Spillane (2014) provide background into ABIL's business, which was formed in 1998 and was in the market of issuing unsecured loans to the lower income earners of South Africa. Initially ABIL did not take deposits from customers but rather depended on bond and stock markets to fund its lending and Ellerines' losses. When their target market suffered due to prolonged mining strikes in 2012, ABIL was not able to recover outstanding debts as debtors could not afford to pay back loans. This coupled with ABIL purchasing Ellerines Holdings, the second largest furniture retailer in South Africa, in 2008 led to the bank's downfall. Ellerines was not profitable and ran losses for many years (Bonorchis & Spillane, 2014).

As in the case of African Bank, having a board dominated by NEDs does not always ensure success or avert failure. The NEDs lacked adequate monitoring skills to protect the shareholder value as proposed by agency theory and they did not have or utilise their networks effectively for the gain of the company as proposed by resource dependency theory. The research aimed to determine whether the levels of remuneration to NEDs are related to company performance. This will assist in determining the value that NEDs add to organisations considering the large amounts of remuneration especially within the Financial Services industry in South Africa. We define the financial services industry for this study to include the main sectors; commercial banks, investment banks, insurance and asset management and investment firms. (Amel, Barnes, & Panetta, 2004)

The global financial crisis of 2007 – 2009 has brought a bigger focus on financial institutions' boards of directors, regarding their roles and responsibilities. In particular the high remuneration of NEDs on boards of financial institutions (Hahn & Lasfer, 2010). Ringe (2013), also emphasises that the global financial crisis brought NEDs under scrutiny. NEDs have long been seen to be key to the monitoring of management, however the financial crisis revealed that they possibly did not monitor at the levels required and allowed firms to take excessive risks. This could be a result of NEDs not having the adequate understanding of the business to monitor it effectively.

Adams (2012) argued that financial firms placed too much emphasis on independence of NEDs rather than qualifications and further highlights that NED remuneration is still an issue. Hahn and Lasfer (2010) added that during times of crisis such as the global financial crisis, NEDs were questioned about their roles and value that they bring to the firm. NEDs were questioned, after the financial crisis, as to whether they had performed their jobs adequately and advised the boards about the possibility of failure with decisions that were taken (Hahn & Lasfer, 2010).

### 1.3 What evidence verifies the identification of the problem?

Bugeja, Fohn, and Matolcsy (2014) identify possible future research to study the impact of the levels of Non-Executive Director (NED) compensation and economic outcomes which include financial performance.

Research in South Africa around corporate governance (which NED remuneration is an element of) state that numerous studies have been conducted in developed markets and other developing countries but research into Africa and South Africa has been lacking (Ntim, 2013; Pamburai et al., 2015).

Research conducted around determinants of NED remuneration has found that there has been little research done in this field and there are numerous of unknowns (Goh & Gupta, 2015; Hahn & Lasfer, 2010; Mallin, Melis, & Gaia, 2015).

### 1.4 What is the relevance of this topic?

As South African firms prepare for the introduction of King IV and the added pressure of companies to comply with the proposed principals, especially with regards to NEDs presence on the firms' boards, these factors make this topic current and increasingly relevant to business. NEDs' role has been questioned as to whether they are adequately skilled to act as the monitoring element between shareholders and management (Hahn & Lasfer, 2010).

King IV addresses director remuneration in more detail than previous versions did and it is more in line with international trends. The proposal is that shareholders will vote on the remuneration policy of firms which give them more power around remuneration than previously (Deloitte, 2016).

The results of the research will provide businesses participating in the Financial Sector in South Africa with insight as to whether there is a link between NED remuneration and firm performance in this sector of the economy. The value that NEDs bring to company can then be questioned and further analysed. Business can further question the quality and remuneration of NEDs against metrics of financial performance, which will be further broken down into market driven factors which reflect what investors perceive the value of the firm to be and internal driven factors which are driven by accounting metrics and controlled by management.

## 1.5 Contribution to Theory

This research contributes to theory by providing evidence of whether a relationship exists between NED remuneration and company performance in a South African Johannesburg Stock Exchange listed Financial Services firm context. The results will contribute to existing literature around NED remuneration (Goh & Gupta, 2015; Hahn & Lasfer, 2010; Mallin et al., 2015; Ringe, 2013), director remuneration to company performance (Aggarwal & Ghosh, 2015; Hillman & Dalziel, 2003) and board independence or structure and company performance (Kumar & Zattoni, 2013; Muniandy & Hillier, 2015; Munisi & Randøy, 2013; Ntim, 2013; Rebeiz, 2015) . These main areas form the key elements of the research that will be conducted and will add to contributions from previous studies by adding a specific NED remuneration link to a South African Financial Services context.

The contribution will firstly detail whether NED remuneration influences and improves the level of monitoring of the agent (management) for the principal (shareholder) which forms part of agency theory (Fama, 1980). Secondly it will seek to determine whether NED remuneration influences the extent to which the NED provides resources and opportunities to the firm, which forms part of resource dependency theory (Hillman & Dalziel, 2003; Zattoni & Cuomo, 2010). Both aspects will be combined to determine if they have a positive influence which could result in improved firm performance.

## Chapter 2: Literature Review

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### 2.1 Introduction

This literature review aims to analyse the links between previous research, and the aims of the study. Although very few direct studies can be utilised, the hypothesis will be determined from elements of the literature that link to the study and form the basis for the hypothesis.

The two main theories that are used for board of directors and remuneration research are agency theory and resource dependency theory (Hillman & Dalziel, 2003). Researchers seeking evidence about the link between boards and firm performance usually apply agency theory and resource dependency theory two theories. Agency theory stated that the key aspect of boards is to monitor management, to ensure that personal interest is not pursued ahead of shareholder expectations. Effective monitoring can lead to reducing the agency costs and better firm performance. (Fama, 1980; Fama & Jensen, 1983). Resource dependency theory investigates the board as the provider of resources through various links and networks (Hillman & Dalziel, 2003). Goh and Gupta (2015) explain that agency theory and resource dependency theory can be used together in the context of NED remuneration.

### 2.2 Corporate Governance

“Corporate governance mainly involves the establishment of structures and processes, with appropriate checks and balances that enable directors to discharge their legal responsibilities, and oversee compliance with legislation. These duties are grouped into two categories, namely: the duty of care, skill and diligence, and the fiduciary duties” (Institute of Directors Southern Africa, 2009, p6).

Corporate governance is required when two problems exist, one is that of the principal agency problem of conflicts and secondly, transaction costs to control the agency problem (Aggarwal & Ghosh, 2015). This requires monitoring by independent NEDs and is underpinned by agency theory (Hillman & Dalziel, 2003).

Rashid (2015) describes the independence by NEDs as arising from agency theory and the separation of ownership from the daily activities of the firm. The role of independent NEDs is to monitor management and prevent personal gain, which should lead to maximising shareholder value.

de Haan and Vlahu (2016) explain that normal governance processes do not distinguish between financial and non-financial firms and explains that it is insufficient to use one code because of the differences. The research explains the differences between financial and non-financial firms as; regulation, the capital structures and the complexity and opacity of their business.

Ntim (2013) found in his study that there was a significantly positive relationship between corporate governance elements and the Tobin's Q measure, which represents the market value of the company. The research concluded that good corporate governance practices get rewarded by the investors in South Africa. Having good corporate governance practices instils confidence into the investors (Ntim, 2013). Pham, Suchard and Zein (2011) in an Australian study did not have a significant relationship between corporate governance and Tobin's Q and Economic Value Added (EVA).

Munisi and Randøy (2013), in a study around governance practices in Sub-Saharan Africa found that good governance practices led to better accounting performance which could have been a result of the reduced agency costs. The study further concluded that there was a negative relationship between good corporate governance practices and Tobin's Q. This is in contrast to the results achieved by Ntim (2013) in a study in the South African context.

### **King Code of Corporate Governance.**

King I was released in 1994, with King II being released in 2002 due to changes in the employment equity act. King III was released in 2009 after the South African Companies Act was revised (Ntim, 2013). King III has 27 principals under section two of the code that relate to boards (Institute of Directors Southern Africa, 2009).

The King Code on Governance is a principles based legislation with companies having to apply or explain the 75 principals of the King Code of Governance. King and governance frameworks around the world are underpinned by agency theory and the need for a majority of independent NEDs are on boards. Muniandy and Hillier (2015) state that the Asia-Pacific region could benefit from the creation and implementation of a governance framework like the King Code of Governance which could lead to increased foreign investment.

King IV has encompassed a more detailed approach to governance of remuneration. It is in line with international developments and remuneration has received far greater



prominence in King IV. The new proposed section on remuneration involves shareholder input before the remuneration policy can be approved (Deloitte, 2016).

King IV further recognised the need for a wider stakeholder consideration by decisions made by the board. The board now need to consider the wider implications to decisions and could be accountable for actions that adversely affect stakeholders (Deloitte, 2016).

### **Non-Executive Directors (Independence)**

The role of NEDs can be generally classified into monitoring (agency theory), contributing to strategic decision-making (service), and enhancing the board's set of resources (Zattoni & Cuomo, 2010). The role of NEDs has changed significantly over the last few decades due to legal and regulatory changes (Bugeja et al., 2014). Independent directors are categorised broadly as not being employees of the firm nor having a significant economic relationship with the firm through shareholding or goods and services provided or family relations with current executive management (Zattoni & Cuomo, 2010). Ringe (2013) challenges the true independence of independent NEDs, and called for more disclosure to define independence as there are many mixed interpretations around this.

After the global financial crisis in 2008 and other corporate scandals, regulatory bodies focussed on management's conflict of interest and recommended more independence on the board (Zattoni & Cuomo, 2010). NED independence and corporate governance effectiveness were questioned after the poor performance of financial services companies during and after the financial crisis (Ringe, 2013). Withers, Hillman and Cannella (2012) argue that NEDs turn down board opportunities because of the increased risk and accountability associated with directorship.

Zattoni and Cuomo (2010) explain that NEDs should bring their experience and skills to the board. They should have distance from the daily operations of the firm. This will allow them to enhance strategic decisions.

Cohen, Frazzini, and Malloy (2012) argue that management have some knowledge or relationship with the NED that is recommended for appointment to the board. The relationship could influence the NED's total potential and value that could be offered to the board. The research provides results that show that companies appoint independent directors that are sympathetic with management but still fit the independence definition according to regulatory definitions. The research further concludes that boards appoint "cheerleaders for management" (p.1056) who have little skill in evaluating firms. These firms show poor stock performance and earnings forecast.

Adams (2012) agrees with Cohen's study as it states that the independence of NEDs at financial firms were more important than considering qualifications of NEDs and whether they were suitable for the role.

Arora and Sharma (2016) in a study performed in an emerging market context between board independence and firm performance, found that a negative relationship existed. The researchers concluded that governance and board independence is new to the emerging markets and may take a few years to have impact. Currently there is a shortage of skills for NEDs, resulting in NEDs having multiple directorships. This creates doubt for the investor as to whether the NED can perform their monitoring role effectively.

### *2.2.1 Agency Theory*

The movement of the modern company towards a separation of ownership (shareholder) from control (management) leads to the principal agent problem (Aggarwal & Ghosh, 2015). The distance between ownership and management of the firm has evolved over time and management have better insight and expertise about the firm than the owners. This leads to management pursuing personal interests at the costs of shareholders, which is the agency costs (Nicholson & Kiel, 2007).

Fama (1980) and Fama and Jensen (1983) provided empirical research into agency theory by identifying the owners as the principal and management as the agent. They further concluded that agents will drive self-interest and seek to benefit from opportunities available to the firm which will be different to the requirements of the principals. The conflict that arises gives lead to agency theory.

Fama (1980) and Fama and Jensen (1983), further concluded that the board must act in the best interest of the principal. Independent directors, on the board, will perform a monitoring and advisory role to executive management to ensure that decisions and actions do not cause conflict with the principal and aims to maximise shareholder value. They further propose that the representation of independence on the board is a good governance practice and the independent NEDs will manage shareholder interests effectively. Experienced independent directors may be more effective monitors than inexperienced independent directors. Strong monitoring provided by the independent directors will mean more efficient contracting with management, leading to reduced agency costs and an improvement in firm performance.

Agency theory still remains the most used theoretical framework for corporate governance, remuneration for both executive directors and NEDs, and financial performance of firms (Mallin et al., 2015; Zattoni & Cuomo, 2010).

Independent directors are perceived as minimising the potential biases for management to achieve personal goals and gain (Crespi-Cladera & Pascual-Fuster, 2014). A majority of independent NEDs on the board are linked with effective monitoring of management, which will cause lower agency costs and this results in improved firm performance (Nicholson & Kiel, 2007).

Hahn and Lasfer (2010), argue against the underlying assumptions of agency theory, by questioning the effectiveness of independent directors on monitoring, controlling and advising during the financial crisis. They questioned whether the NEDs were adequately skilled to understand the firm and industry, thus allowing them to perform their duties adequately (Hahn & Lasfer, 2010). The research further questioned whether the NEDs of financial firms were independent of management and whether they were focused on short-term goals rather than long-term goals, whether they have the required competencies, and whether remuneration drove these situations (Hahn & Lasfer, 2010).

Hillman and Dalziel (2003) challenge some of agency theory's underlying principles. Firstly, agency theory states that remuneration should align with the role requirements and this will lead to effective monitoring and improved firm performance (Fama, 1980; Fama & Jensen, 1983). Hillman and Dalziel (2003) argue and conclude in their research that there is too much focus on incentives and monitoring without considering a variety of factors, which will influence the NEDs ability to monitor adequately. They further conclude that board capital should be considered based on the ability of the NED to monitor adequately, and that NED skills should be evaluated.

Hillman and Dalziel (2003) argue that secondly, agency theory states that boards with a majority of independent NEDs are assumed to be more effective monitors because of their neutrality from management. Hillman and Dalziel (2003) also argue that boards have conflicts and independent directors are not truly independent. Factors that contribute to the lack of independence include the friendship of executives and social ties, which earn them the role, and these negatively affect the board monitoring.

Thirdly, Hillman and Dalziel (2003) argue that agency theorists that claim that there is a direct relationship between board incentives and monitoring are incorrect. Rather they conclude that the relations between board incentives and monitoring is indirect.

NEDs should not just monitor and advise the board but should be recognised as agents in their own capacity (Deutsch, Keil, & Laamanen, 2011). Deutsch et al. (2011) continues that NEDs are powerful individuals, present or past executives, represent institutional investors, or are experienced professionals who could have their own agenda as members of the board. The researchers propose multiple agencies, and that NEDs do not always act in the best interest of the principal and varied independence and self-interest contribute to them being recognised as an agent. Deutsch et al. (2011) concludes that dual agency view provides a current context to business as opposed to the one agent one principal theory and should be considered in today's fast changing environment.

Further research argues that agency theory is one dimensional and does not consider a variety of settings and additional stakeholders to the shareholder and management. It only considers that management may consider personal goals which may oppose the view of the shareholders and may lead to not maximising shareholder value through company performance. Agency theory needs to consider the broader social environment and other stakeholders that could be affected by actions and decisions. This varies from the original view of agency theorists and considers the evolution of the original theory (Wiseman, Cuevas-Rodríguez, & Gomez-Mejia, 2012).

Raelin & Bondy (2013) support the argument made by Wiseman et al. (2012) that agency theory is not one dimensional and consist of two layers. The first layer is formed by the relationship between the shareholder and manager interests and the other layer relates to the shareholder and societal interests. The first layer has an abundance of research due to the popularity of the simple economic representation of agency theory. The second layer in comparison has much less research conducted into this area. It is still largely unsupported and this is often used to obscure shortcomings in the first layer. Supporters of agency theory therefore analyse good corporate governance to a cost benefit result between shareholders and management to maximise firm value without considering the impact to the large number of stakeholders to the firm in today's world. (Raelin & Bondy, 2013).

The first layer of agency theory ignores that firms and shareholders do not exist alone. If the second layer is considered the theory could evolve to become broader and consider a broader range of activities and people that are involved directly and indirectly with the firm. The second layer could provide possible resolution of the conflicts between short and long term goals often encountered by the company (Raelin & Bondy, 2013).

Agency theorists argue that there is a positive relationship between NED remuneration and monitoring (Hillman & Dalziel, 2003). Agency theory forms the basis for this study and will be used in the original form as researched and concluded by Fama (1980) and Fama and Jensen (1983). Although other areas and further dimensions are being investigated, the original agency theory is used in many similar studies today and was used as a base for this study. The NED as the monitor, as adapted by King III, that will lower agency costs and improve firm performance will be used.

Therefore hypothesis 1 and 2 for the study are:

*Hypothesis 1 – There is a positive relationship between Non-Executive Director Remuneration and Company Performance Measured by Internal Metrics.*

*Hypothesis 2 – There is a positive relationship between Non-Executive Director Remuneration and Company Performance Measured by External Metrics.*

Resource dependency theory has also been identified as an important theory backing the studies of corporate governance and remuneration (Goh & Gupta, 2015). It differs from agency theory in that resource dependency theory states that NEDs that have access to a wide range of networks and resources can assist the firm in performing better (Valenti, Luce, & Mayfield, 2011).

### *2.2.2 Resource Dependency Theory*

An important function of the board is to provision resources. It relates to the board's ability to obtain resources for the firm whether tangible or intangible (Hillman & Dalziel, 2003). Resource dependency theory's logic states that a board's ability to access resources is directly related to firm performance (Hillman & Dalziel, 2003).

Resource dependency theory states that companies will stand a higher chance of performing better if it has directors with strong backgrounds, network alliances and additional expertise. The director's ability to utilise the resources available will influence the performance of the firm (Valenti et al., 2011).

Although agency theory is often used to study boards, evidence suggests that resource dependency theory is a better viewpoint for understanding boards (Hillman, Withers, & Collins, 2009). Resource dependency theory is crucial when researching areas around the board of directors (Valenti et al., 2011). The importance and relevance was further supported by Zattori and Cuomo (2010) who state that directors contribute resources and opportunities through networks and links.

Hillman and Dalziel (2003) argues that board capital is linked to resource provision which in turn leads to an increase in performance. The research found that board capital more than incentives, would drive better resource provision from the board members. It is further emphasised in the research that resource dependency theory assists users to understand the benefit of networks and the director's past. If these benefits are leveraged it could improve firm performance.

Hillman et al. (2009) in their review of resource dependency theory, noted that it has become one of the most important theories to understand organisations and strategy. The research looked at five key areas of resource dependency theory: "mergers and acquisitions, joint ventures, boards of directors, political action and executive succession" (p. 1405). Focusing on the boards of directors; the research concludes that this area has seen the greatest focus with regards to resource dependency over the past 3 decades. "The research also supports the four benefits that directors bring to firms: advice and counsel, channels of information flow, preferential access to resources, and legitimacy" (Hillman et al., 2009, p. 1411).

A strong resource dependency base for directors can be a strong contributor to business success. The research argued that the resources required are important for a specific period and could lose importance outside this period. The resources requirements are often context specific for firms and could depend on the urgency of the requirement. The research further states that resource requirements could change with changing needs of the firm and a board with access to diverse and various links and networks in the market will benefit the company. The research concludes that a firm with access to resources in the market could lead to better company performance (Nicholson & Kiel, 2007).

Davis and Cobb (2009) reveal that after a period of not being given much attention, there is evidence that resource dependency theory is on the rise. This is largely because of a tough economic environment globally and the ability to obtain resources provides a competitive advantage to firms. The research identifies that resources have evolved over time contributed largely by the changes in technology. Technological ability and networks may not have been as important previously, with business embracing technological changes so rapidly.

The research further investigates power and dependence as the underlying elements of resource dependency theory. In today's economy the availability of technology and rising competition lowers the dependency between buyers and sellers. It has further altered the power element with the rapid growth of outsourcing. Internal functions can be easily

outsourced. Finance has also evolved power relationships by placing emphasis on the shareholder. Shareholder value metrics have evolved, investor relations offices have been created and there has been growth of organisation's ability to disguise their true financial position (Davis & Cobb, 2009).

Resource dependency theory gives the firm competitive advantage from the ability to acquire external resources. They influence the remuneration of a NED and could influence the performance of the firm positively if harnessed correctly (Nicholson & Kiel, 2007). This area is applicable to the research being conducted and will assist with the understanding of NEDs and their remuneration.

Resource dependency theory is important to derive NED value that could be brought to the firm. It furthermore states that remuneration should be aligned to the NED's skills and network which, if leveraged, will improve firm performance. The hypothesis for the study aligns to this as there should be a positive relationship between NED remuneration and company performance. Together with agency theory, the hypothesis is developed; that the NEDs will be remunerated according to their networks, skills and monitoring abilities, which will affect firm value.

Hypothesis 1 and 2 that will be used for the research are as follows:

*Hypothesis 1 – There is a positive relationship between Non-Executive Director Remuneration and Company Performance Measured by Accounting/Internal Metrics.*

*Hypothesis 2 – There is a positive relationship between Non-Executive Director Remuneration and Company Performance Measured by Market/External Metrics.*

### **2.3 Non-Executive Director Remuneration**

Zattoni and Cuomo (2010) assert that if NEDs are well remunerated, they have little motivation to challenge executive management, because they may be dependent on management. If they are not well paid, NEDs may be sufficiently incentivised to devote the time and effort required for the fulfilment of their responsibilities which include the monitoring function as put forward in agency theory. The research achieved split results in what is viewed as accepted remuneration with the sample showing that it is acceptable for NEDs to receive share based payments or shares as remuneration.

Hahn and Lasfer (2010) strongly support that remuneration that is linked to performance efforts to align NEDs with their roles and responsibilities will make boards more efficient and diligent in undertaking their fiduciary duties. The research concluded that

“remuneration of non-executive director is an enigma” (p. 598). There has been little information about the rationale of NEDs’ remuneration. Whilst there is a lot of literature on NEDs, the research has not aligned these roles to remuneration.

Adams (2012) found that to ensure that financial firms retain competent and adequately qualified directors and further attract competent candidates, they need to be adequately compensated for the complexities of the role that exist. The research further states that firms should bear the costs to upskill directors to ensure that they attain the required level for board membership. This was echoed by Bugeja et al. (2014), who state that NEDs should be compensated adequately for the increased demand of the role and for the experience and expertise that enables them to fulfil the role effectively.

Goh and Gupta (2015) found that remuneration had a positive link to the characteristics of the firm and the directors' individual characteristics. The assessment of the director's characteristics are positively associated with remuneration. This proposes that directors have the ability to contribute meaningfully to board decisions. Their set of resources are rewarded by firms as stated by the resource dependency theory (Hillman & Dalziel, 2003).

Agency theorists state that better monitors receive higher remuneration because of the value that can be created for shareholders. This also creates a demand in the market for these types of NEDs which increases remuneration (Goh & Gupta, 2015). The research also concluded that there is a negative relationship between director remuneration and monitoring characteristics, such as director independence which suggests that effective monitors are paid less (Goh & Gupta, 2015)

Goh and Gupta (2015) found that larger firms, which are positioned for growth, have above market related performance and a ratio of more NEDS to executives on the board tend to pay higher remuneration. During a review of various director characteristics it was noted that independent directors that are good monitors usually receive lower remuneration. It was also noted that the independent directors with higher salaries could be aligned with the executive team. This also could indicate that independents with higher salaries could be rewarded for aligning with management.

Goh and Gupta (2015) further found that directors that are more experienced, have specialist skills and larger networks are generally paid more by the market. It also found that directors with greater independence are often not rewarded leading the researchers to infer that independence does not create additional value. The results could be true as



other researchers put emphasis on the ability of NEDs to monitor which could improve the firm's value and not necessarily independence (Hahn & Lasfer, 2010).

Mallin et al. (2015) asserts that remuneration levels usually indicate the quality and effectiveness of NEDs. The research further emphasise that the role of the NED has evolved with the changing business environment and requires greater commitment and accountability, which should lead to better remuneration for NEDs. In order to reduce agency costs, effective monitors need to be recruited. To obtain these skills often requires that increased remuneration be paid to the NED.

Mallin et al. (2015) concluded that NEDs' remuneration is based on effort that is observed by the principal (shareholder) such as at board meeting attendance. Many activities performed by NEDs are not visible and cannot be adequately measured such as utilising available networks for the benefit of the firm.

In research conducted about director remuneration and company performance in India, which divided company performance measures into internal/accounting metrics and external/market metrics, found that directors' remuneration has a correlation to the accounting metrics and did not have a correlation with market metrics. The researchers concluded that this could be a trend in emerging markets, where investors still do not have as much faith in the impact of the NEDs on the firm (Aggarwal & Ghosh, 2015).

In a similar study performed in Australia, the research revealed that NED compensation has a positive relationship with market metrics and was not associated with internal/accounting metrics (Bugeja et al., 2014). It was inferred that while investors view the firm favourably, the cost of implemented corporate governance mechanisms is often high (Bugeja et al., 2014).

NED remuneration considers a host of elements. This study will leverage of the work performed by prior research outcomes, most of which align with the main theoretical lens of agency theory and resource dependency theory.

## **2.4 The Company Performance Indicators**

Measures of financial performance are standard and are usually easily attainable because of public disclosure requirements of financial information for public companies (Aggarwal & Ghosh, 2015).

The research evaluation of company performance uses either accounting metrics and/or market metrics to measure corporate performance (Kouki & Guizani, 2015; Munisi & Randøy, 2013).

The company performance metrics that will be used to measure company performance will be divided into internal/accounting metrics and market metrics and will be discussed further.

#### *2.4.1 Internal/Accounting Metrics for Measurement of Company Performance*

Kouki and Guizani (2015) articulate some of the pitfalls in using the accounting and market metrics to measure financial performance. Kouki and Guizani (2015) argues that accounting metrics capture and present data from past performance. Some accounting metrics use asset values which are recorded at historic value and usually not accurate market value. Accounting returns can be adjusted to suit the organisation or management needs, which can take the form of creating off-balance sheet financing for assets and special purpose entities to distort the actual financial reality of the firm (Kouki & Guizani, 2015; Rashid, 2015; Simpson & Kohers, 2002).

Laing & Dunbar (2015) describes Return on Assets and Return on Equity as commonly used metrics to measure company performance.

**Return on Assets (ROA)** – is the ratio between net profit and the book value of assets (Munisi & Randøy, 2013; Terjesen, S., Couto, E. B., & Francisco, 2015). The ratio explains how well the firm has been able to use its assets to generate profits (Graham & Winfield, 2010).

ROA is a popular metric and is used in many studies that compare a variable to company performance (Arora & Sharma, 2016; Liu, Miletkov, Wei, & Yang, 2015; Muniandy & Hillier, 2015; Munisi & Randøy, 2013; Ntim, 2013; Pamburai et al., 2015; Terjesen, S., Couto, E. B., & Francisco, 2015).

Selecting ROA as a metric contributes to the sub-hypothesis developed under; finding a positive relationship using internal/accounting metrics for company performance:

*Hypothesis 1a – There is a positive relationship between Non-Executive Director Remuneration and Return on Assets*

**Return on Equity (ROE)** – is the ratio of net profit and the total equity. ROE is the rate of return that shareholders achieve from an investment. It is also a popular metric used when evaluating banking company performance (Kumbirai & Webb, 2010).

ROE although not as popular as ROA in academic research of company performance has been used in previous studies conducted in the financial sector and in emerging market economies (Arora & Sharma, 2016; Liu et al., 2015; Muniandy & Hillier, 2015).

ROE has been selected to be the second sub hypothesis developed under; finding a positive relationship using internal/accounting metrics for company performance:

*Hypothesis 1b – There is a positive relationship between Non-Executive Director Remuneration and Return on Equity*

#### 2.4.2 Market Metrics for Measurement of Company Performance

Market valuation metrics of company performance is the market's perception of the value of the firm and whether it will be a worthy investment (Kouki & Guizani, 2015).

Kouki and Guizani (2015) states that market metrics are developed on future expectations of the marketplace. Market metrics are exposed to the macro-environment variables that are difficult to measure and control. They also argue the market cannot be accurately predicted and is not rational and efficient. Pamburai et al. (2015) support Kouki and Guizani (2015) view that the market is influenced by many factors, many of which are out of the firms control and often cannot be predicted accurately. The market also predict future performance of the firm rather than the actual past performance.

**Tobin's Q** – is market value of the company's assets. That is obtained by using the market value of assets divided by the book value of assets. Alternatively it can be calculated by using the book value of assets and the book value of equity plus the market value of equity, divided by the economic replacement cost of these assets (Munisi & Randøy, 2013).

Tobin's Q is popular market metric and was used in prior research measuring company performance (Aggarwal & Ghosh, 2015; Arora & Sharma, 2016; Jermias & Gani, 2014; Munisi & Randøy, 2013; Ntim, 2013; Terjesen, S., Couto, E. B., & Francisco, 2015). Based on prior research Tobin's Q will be used as a measure for company performance in this study.

Tobin's Q has been selected to be the first sub hypothesis developed under; finding a positive relationship using market metrics for company performance:

*Hypothesis 2a – There is a positive relationship between Non-Executive Director Remuneration and Tobin's Q.*

**Economic Value Added® (EVA)** - was created by Stern Stewart and Company and is trademarked as a variant of residual income (net operating profits less the charge of opportunity cost of invested capital) (Laing & Dunbar, 2015; Pham et al., 2011). Residual income analyses whether the firm is earning more from capital invested than the cost of the capital (Laing & Dunbar, 2015).

Chen and Dodd (2016) found that although EVA is a good measure of company performance, firms should continue using accounting measures to track and evaluate company performance.

Pham et al. (2011) assert that the use of Tobin's Q and EVA in determining if a relationship existed between corporate governance was that, it evaluates the value creating role of corporate governance rather the past view presented by accounting metrics. The research further asserts that Tobin's Q and EVA should achieve similar results when used as company performance variables.

The sub hypothesis for market measure metrics for company performance is thus derived with EVA being used as a market measure of company performance.

*Hypothesis 2b – There is a positive relationship between Non-Executive Director Remuneration and EVA.*

From the literature reviewed it became apparent that company performance measures are split into internal and market metrics. This was considered and when further research was conducted into these two metrics, it was decided that ROA and ROE would be used to evaluate internal metrics of company performance and Tobin's Q and EVA will be used to evaluate the market perception of company performance. Pamburai et al. (2015) asserts that using multiple performance measures creates different views and context to the results.

## 2.5 Conclusion

The literature review covers the main elements required to understand the areas of corporate governance, NEDs' independence, remuneration, and company performance

measures. It was noted that agency theory and resource dependency theory are the dominant theories that apply to these areas.

Corporate governance codes are modelled on the area of agency theory that states that independents will act as effective monitors and lower the agency costs between the principals and agents. This will lead to greater firm value. Agency theorist also believe that to recruit effective monitors, remuneration needs to match their ability.

Similarly resource dependency theory states that the more connected the NED the more it will benefit the firm which will lead to increased firm value. Researchers agree that to hire a NED that is highly skilled and with a vast network will require higher remuneration.

Company performance measures were evaluated for similar corporate governance or remuneration studies seeking to find whether relationships exist with company performance. Company performance in most studies are divided between internal/accounting and market measures. Taken from prior research with emphasis on emerging market economies, ROA and ROE were used as internal/accounting measurement metrics and Tobin's Q and EVA were used as market measurement metrics.

The areas covered in the literature review provide the base for the development of the hypothesis for the study as well as the information required to understand the context of these variables.

*Hypothesis 1a – There is a positive relationship between Non-Executive Director Remuneration and Return on Assets*

*Hypothesis 1b – There is a positive relationship between Non-Executive Director Remuneration and Return on Equity*

*Hypothesis 2a – There is a positive relationship between Non-Executive Director Remuneration and Tobin's Q.*

*Hypothesis 2b – There is a positive relationship between Non-Executive Director Remuneration and EVA*

## Chapter 3: Research Hypothesis

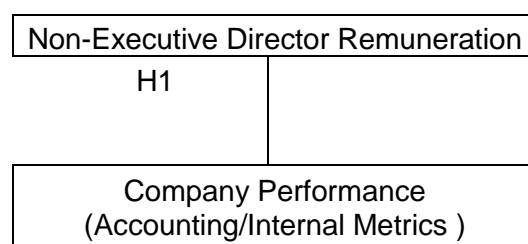
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There has been greater emphasis on NEDs' skills and monitoring capabilities after numerous corporate collapses globally. Stakeholders questioned the NEDs' effectiveness and ability to challenge management when risky decisions are being made (Adams, 2012; Hahn & Lasfer, 2010). Agency theory and resource dependency theory are commonly used in studies that include corporate governance, NEDs and remuneration. Agency theory and resource dependency theory logic suggest that NEDs with superior monitoring skills and vast networks will cost the firm a higher remuneration but if leveraged the theories also go on to assert that NEDs through monitoring and access to networks will improve firm performance (Nicholson & Kiel, 2007).

Company performance measures from similar studies divides the metrics to measure company performance into internal/accounting measures and market related measures (Munisi & Randøy, 2013). This was adopted and in-line with previous research ROA and ROE were selected to measure internal/accounting metrics of company performance and Tobin's Q and EVA were used to measure market metrics of company performance.

NED remuneration has been identified as the independent variable and company performance measures as the dependent variable. The key elements mentioned were used to derive the Hypothesis for the study.

### 3.1 Hypothesis 1

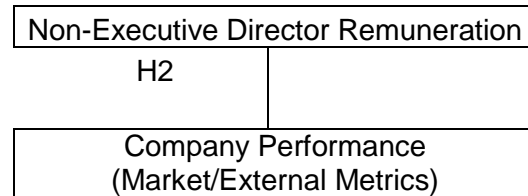


***Hypothesis 1: There is a positive relationship between Non-Executive Director Remuneration and Company Performance Measured by Accounting/Internal Metrics.***

Hypothesis 1a – There is a positive relationship between Non-Executive Director Remuneration and Return on Assets.

Hypothesis 1b – There is a positive relationship between Non-Executive Director Remuneration and Return on Equity.

### 3.2 Hypothesis 2



**Hypothesis 2 – *There is a positive relationship between Non-Executive Director Remuneration and Company Performance Measured by External/Market Metrics***

Hypothesis 2a – There is a positive relationship between Non-Executive Director Remuneration and Tobin's Q.

Hypothesis 2b – There is a positive relationship between Non-Executive Director Remuneration and EVA.

## Chapter 4: Research Methodology

### 4.1 Introduction

The study aimed to determine if there was a positive relationship between NED Remuneration and company performance in the financial services sector. The financial services sector comprised of companies that were listed on the Johannesburg Stock Exchange for a period of 10 years (2006 – 2015). The period of 10 years took into consideration the global financial crises during 2008 – 2009. The study used secondary information that was available on McGregor BFA and company performance was analysed using internal and external measurement metrics.

### 4.2 Research Design

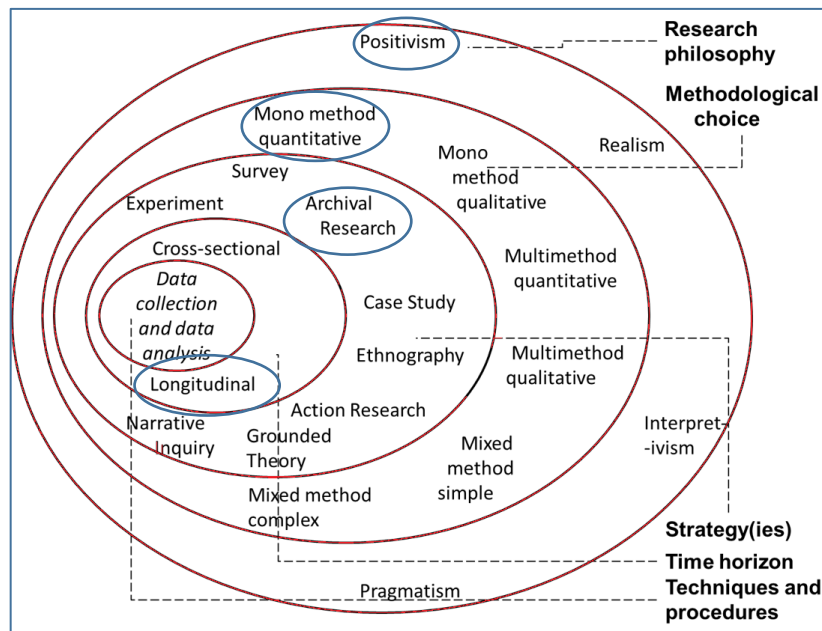
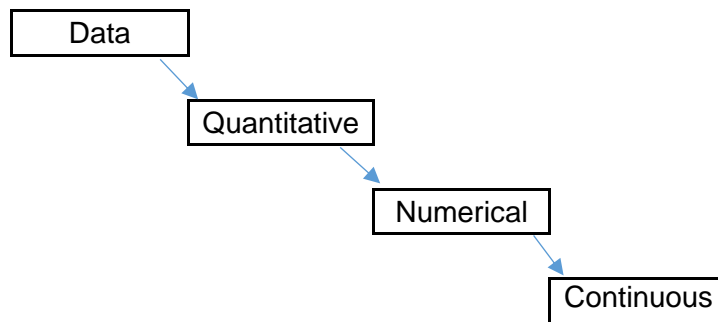


Figure 1: Research Onion (Saunders and Lewis, 2012)

The study aimed to determine if there is a relationship between NED remuneration and company performance in the financial services sector in South Africa. The hypotheses of the study sought to determine company performance using an internal metrics and external metrics perspective. The study was an exploratory quantitative study which used secondary data from the selected companies' annual financial statements which was available on McGregor BFA over the period of ten years (2006 - 2015). It was a positivist study using archival research information for the period of the study and was longitudinal in nature due to the extended period of the research conducted (Saunders & Lewis,



2012). Figure 2 below describes the types of data that were used for the research, which was numeric and continuous in nature.



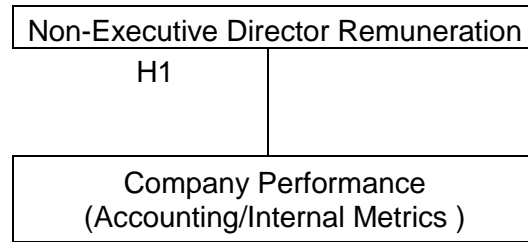
*Figure 2: Types of data used in this research (Saunders and Lewis, 2012)*

McGregor BFA stores financial information of all listed companies in South Africa. All variables that were required for the study were available, downloaded for analysis and did not have to be recalculated. Listed companies on the JSE are required through King II prior to 2009 and King III from 2009 to disclose NED remuneration in their annual integrated reports. The company information obtained was deemed as reliable because it would have been audited annually by an accredited independent party, a JSE listing requirement.

The research will aim to find a relationship between NED remuneration (independent variable) and company performance (dependent variable). Company performance measures were broken down into two sections: accounting/internal performance metrics and market related performance/external metrics as is usually used in corporate governance related research (Munisi & Randøy, 2013). The two measures provide different aspects of firm performance. The accounting measure is based on historic data and can be manipulated by management. The market measure is a forward view of the value of the company for investors (Munisi & Randøy, 2013).

The above has led to the two hypotheses for the study, which divides company performance into two measurement metrics; accounting/internal and market/external metrics.

*Hypothesis 1:*



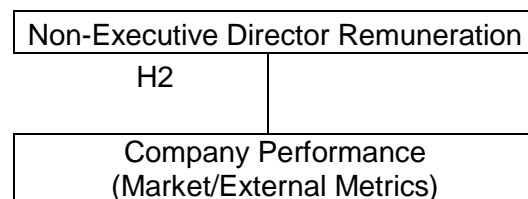
*Hypothesis 1 – There is a positive relationship between Non-Executive Director Remuneration and Company Performance measured by accounting/internal Metrics.*

This hypothesis was broken down into two further factors for internal company performance metrics to provide context within the financial services industry and further understanding of the relationships that may exist. The metrics used to measure internal company performance are Return on Assets (ROA) (Munisi & Randøy, 2013; Terjesen, S., Couto, E. B., & Francisco, 2015) and Return on Equity (ROE) (Laing & Dunbar, 2015)

*Hypothesis 1a – There is a positive relationship between Non-Executive Director Remuneration and Return on Assets.*

*Hypothesis 1b – There is a positive relationship between Non-Executive Director Remuneration and Return on Equity.*

*Hypothesis 2:*



*Hypothesis 2 – There is a positive relationship between Non-Executive Director Remuneration and Company Performance measured by external/market Metrics.*

This hypothesis was broken down into two further factors for external market company performance metrics to provide context within the financial services industry and further understanding to the relationships that may exist. The metrics used to measure external

company performance are Tobin's Q (Aggarwal & Ghosh, 2015; Mallin et al., 2015; Munisi & Randøy, 2013; Ntim, 2013) and Economic Value Added (EVA) (Laing & Dunbar, 2015; Pham et al., 2011)

*Hypothesis 2a – There is a positive relationship between Non-Executive Director Remuneration and Tobin's Q.*

*Hypothesis 2b – There is a positive relationship between Non-Executive Director Remuneration and Economic Value Add (EVA).*

### **4.3 Unit of Analysis and Population**

The unit of analysis for the study is the company in the financial services industry.

Saunders and Lewis, (2012) define the population as a "complete set of group members", which in the case of this study are all companies that have been listed under the financial sector on the main board of the Johannesburg Stock Exchange (JSE) for the period 2006 – 2015.

An analysis will be performed over ten years of data (2006 – 2015). The companies must have implemented King II and III and have been listed on the JSE for the complete period intended for analysis of the proposed research. The population included JSE-listed companies with international operations and financial data that was disclosed in foreign currency.

28 companies met the criteria for the study and constitute the population for the study.

### **4.4 Sampling**

There was no sampling technique used for this study. 28 out of 50 companies met the criteria and were used for the study of the Financials Sector of the JSE and were considered for analysis.

*Please refer to Appendix A for the list of companies that met the criteria.*

### **4.5 Data Collection**

Secondary data was collected from McGregor BFA and was used to determine if a positive relationship exist between NED remuneration and company performance (measured using internal and external measurement metrics). Saunders and Lewis (2012) define secondary data as data that was initially collected for purposes other than that for which it will be used in research. The required quantitative data for the selected

companies; NED remuneration, ROA, ROE, Tobin's Q and EVA were available annually for the period of analysis and were obtained from McGregor BFA. The data was downloaded into Microsoft Excel for each company annually from 2006 – 2015.

The documentary secondary data was obtained from McGregor BFA and was suitable for purposes of the research conducted because it provided the level of detail required to analyse NED remuneration and internal drivers and external drivers of company performance. The data was collected for a period of ten years (2006 – 2015) to obtain a fair reflection of company performance which included cyclic up and down movements of the South African financial sector.

The secondary data that was required (NED remuneration, ROA, ROE, Tobin's Q and EVA) was downloaded from McGregor BFA into Microsoft Excel to determine if there was a relationship between NED remuneration and firm performance. The data was categorised into the dependent and independent variables to support the hypothesis. It was further adjusted so that the all statistical testing could be performed on the statistics programme "R".

#### **4.6 Data Analysis**

The data was categorised and allocated to the dependent and independent variables. It was further adjusted so that the following statistical tests could be performed on the statistics programme "R":

Shapiro-Wilk test for normality was performed on all variables. This test was key as many correlation tests require the underlying data to follow a Normal distribution. One such test is the Pearson Product Moment test of correlation. Where all variables followed a Normal distribution, the researcher would utilise the Pearson Product Moment test (Hauke & Kossowski, 2011).

Spearman's Rank correlation test is a test for correlation that does not require the underlying data to follow any specified distribution. It is a non-parametric test for correlation. The researcher used this test when not all variables followed a Normal distribution (Hauke & Kossowski, 2011).

The data was prepared by performing the following steps:

- Reviewed the reasonableness of the all variables in the data obtained from BFA McGregor for major year on year changes.

- Verified that the data downloaded from McGregor BFA was complete, accurate and met the set criteria and accurate by employing sense checks such as data for the required period and sudden sharp adjustments to data values that was against the norms and trends.
- The data was then organised/categorised by dependent and independent variables and by sectors within the financial services.
- The data was then deemed to be in an appropriate format to be exported into the statistical program “R”

The researcher used the mean or equally weighted average result of the industry for each variable for each year of analysis.

The only data adjustment made to the data was the conversion of the foreign currency values to South African Rands. There were 3 companies in the sample that reported in foreign currencies of the United States Dollar and the British Pound Sterling. It was decided to convert these to the South African Rand so that the data was similar and aligned for statistical testing. This adjustment used the average exchange rate over the year of analysis. The exchange rates used may be found in *Appendix B*.

The data was then transferred into the statistics program “R” for statistical testing.

A test for normality using the Shapiro-Wilk test was performed on each variable to determine what correlation test would be the most appropriate to use.

A test for any correlation was performed for each hypothesis developed.

Descriptive statistics for the applicable data for the study were performed in Microsoft excel to establish the mean, maximum and minimum for the variables.

Graphical output was also obtained from “R”, relevant to each statistical test performed.

#### **4.7 Limitations**

The research conducted has limitations that should be considered during the study:

The research used a small population, which included companies that were listed for the entire period of 2006 -2015. It did not utilise companies that delisted or listed during the period.

The research did not consider the Financial Services industry regulatory environment and its impact on NED remuneration and company performance.

## Chapter 5: Results

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### 5.1 Introduction

The research results chapter will concentrate on the broad description of the data as well as the descriptive statistics used in analysing the impact of Non-Executive Director (NED) remuneration and the company's performance, measured by internal and market measures.

### 5.2 Description of the sample

The final sample included data over 10 years (2006 – 2015) from 28 listed JSE companies in the financial services industry. Other companies were excluded due to not meeting the criteria of being listed on the JSE for 10 years or more.

### 5.3 Company performance descriptive statistics

The research aimed to determine whether there is a link between NED remuneration and company performance. NED remuneration is the independent variable with the various company performance measures namely, return on equity, return on assets, economic value added and market value added are the dependent variables.

Correlation analysis was deemed to be the most suited statistical measure to gain insight into any link between the dependent and independent variables.

Spearman's rank order correlation was used in the tests as it does not require the data to follow a normal distribution. Various tests for normality were conducted to confirm this and the test results will be presented further in this chapter.

Table 1, 2 and 3 illustrates the mean, minimum and maximum of the sample for each period from 2006 - 2015 inclusive.



Table 1: Mean of Data

Year	ROA	ROE	MVA	EVA	Tobin's Q	Remuneration (R'000s)
2006	-11.1%	-14.0%	1.93	-R2,168,898.19	1.30	3,054.59
2007	4.1%	20.6%	2.12	-R5,867,750.37	1.30	3,869.10
2008	-2.2%	7.1%	1.66	-R1,361,032.13	0.99	4,744.81
2009	-3.1%	16.3%	1.32	-R5,639,688.65	0.87	4,836.64
2010	-4.5%	-8.0%	1.69	-R8,064,869.32	0.81	5,662.59
2011	1.8%	19.1%	1.33	-R3,692,672.69	0.82	6,861.87
2012	2.8%	14.8%	1.49	-R9,674,616.70	0.83	7,474.41
2013	2.6%	12.3%	1.71	-R1,917,842.44	0.80	8,651.93
2014	2.0%	15.9%	1.94	-R0,423,811.21	0.93	11,358.79
2015	5.2%	20.6%	1.68	-R1,185,279.87	0.91	12,263.89

Table 2: Minimum Values of Data

Year	ROA	ROE	MVA	EVA	Tobin's Q	Remuneration (R'000s)
2006	-267.6%	-570.3%	0.39	-R70,368,461.72	0.10	
2007	-30.5%	0.0%	0.40	-R18,230,353.79	0.09	
2008	-59.6%	-159.7%	0.39	-R3,153,506.76	0.10	
2009	-89.2%	-31.7%	0.29	-R17,079,721.41	0.11	
2010	-115.6%	-568.0%	0.34	-R22,029,003.58	0.12	
2011	-20.0%	0.0%	0.33	-R8,131,131.15	0.12	40.00
2012	-7.5%	-10.3%	0.45	-R35,627,318.23	0.15	320.00
2013	-19.6%	-95.5%	0.39	-R62,229,236.81	0.13	320.00
2014	-9.7%	-39.0%	0.51	-R39,946,484.31	0.13	320.00
2015	-8.9%	-27.6%	0.39	-R46,747,155.47	0.10	255.00

Table 3: Maximum Values of Data

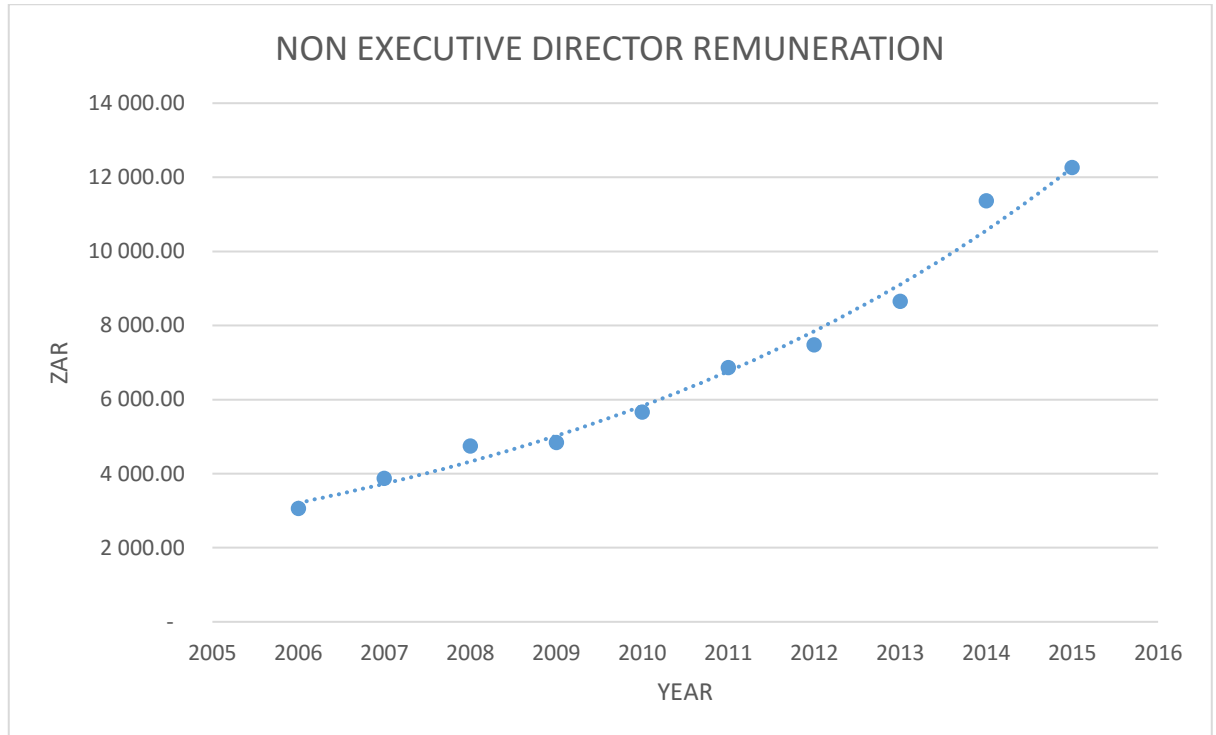
Year	ROA	ROE	MVA	EVA	Tobin's Q	Remuneration (R'000s)
2006	52.6%	69.9%	0.07	-R3,902,833.00	1.34	7,184.74
2007	31.3%	46.5%	0.15	-R3,356,094.00	0.07	8,776.00
2008	30.1%	40.3%	0.12	-R1,308,752.50	0.50	9,012.40
2009	19.7%	188.1%	0.07	-R3,858,474.80	0.72	20,216.00
2010	13.6%	35.3%	0.13	-R5,123,702.60	0.82	29,578.00
2011	16.0%	61.1%	0.04	-R3,872,075.80	0.98	38,162.00
2012	21.7%	46.4%	0.07	-R3,312,275.00	0.86	50,900.00
2013	25.5%	72.6%	0.12	-R9,078,722.00	0.86	65,471.00
2014	15.4%	91.4%	0.14	-R3,637,563.30	0.25	61,329.00
2015	55.5%	83.5%	0.09	-R7,439,796.00	0.60	81,522.00

As can be seen above, the results do contain a fair amount of variation within all variables above.



## 5.4 Non-Executive Director remuneration sample description

Figure 3: Mean of NED Remuneration Annually

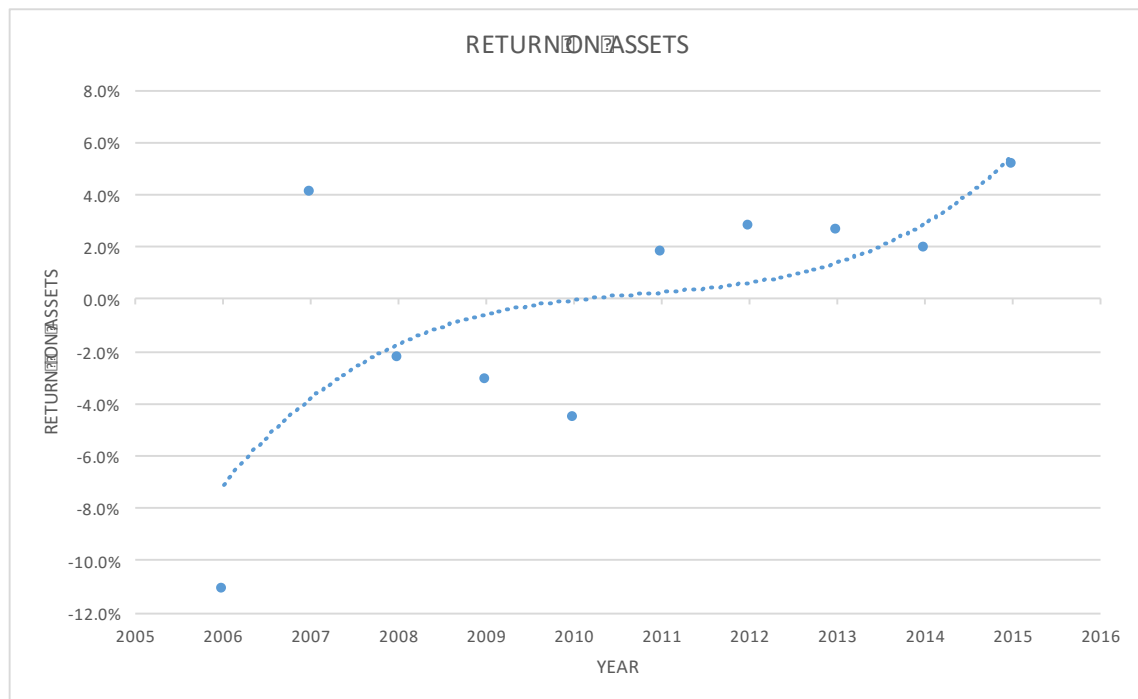


There is a clear increase in total NED remuneration over the 10-year period. Total average NED remuneration increased by a factor of 4 from circa R3m to circa R12m representing an annual average growth rate of approximately 15%. This increase is well above the average inflation rate experienced in South Africa over the decade of analysis and could suggest that this increase has been justified by value added to the companies in the sample. Average NED remuneration is flat over the 2008-2009 financial crises showing little absolute growth (R4,7m to R4,8m).

## 5.5 Return on Assets (ROA) Sample Description

Return on Assets (ROA) is calculated as the net income relative to the total average assets of a company. The mean ROA for each year is illustrated below:

Figure 4: Mean of ROA Annually

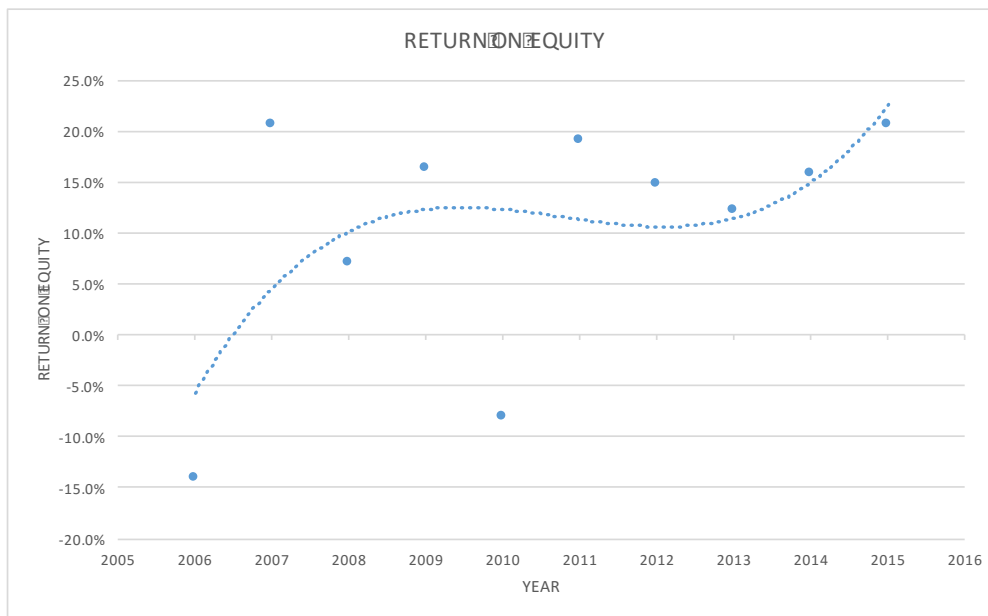


The mean ROA is very volatile over the 10-year period, however the polynomial curve fitted to the data points highlights a clear upward trend over the period of analysis. The polynomial is of order 3 and has an r-squared value of 49%. The volatile results are largely driven by extreme changes in the ROA for investment companies such as Brait due to the investment company nature of their operations which invests in high growth companies and will influence the mean. Furthermore, as the mean is equally weighted by company within the sample, the mean is susceptible to outliers in various years. No further smoothing of results has been applied to the data.

### 5.6 Return on Equity (ROE) Sample Description

The ROE is calculated as the net income relative to the shareholders' equity.

Figure 5: Mean of ROE Annually

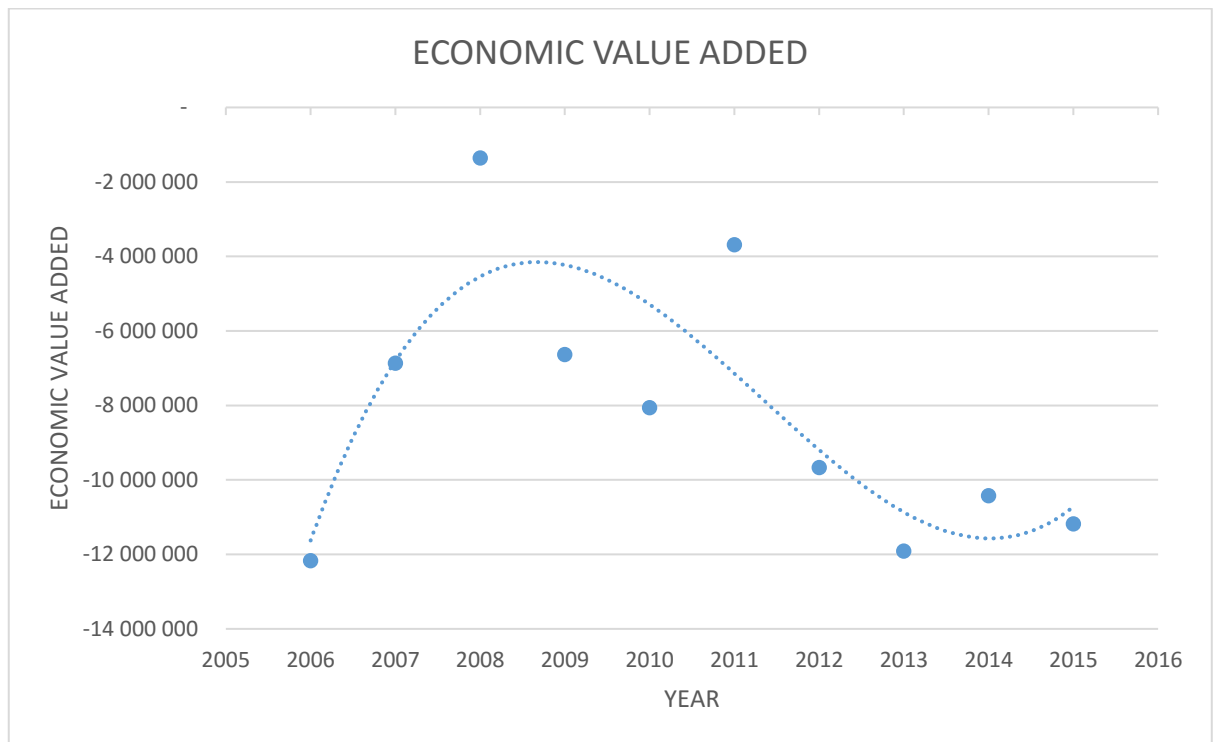


As one would expect, the ROE displays similar behaviour to the ROA performance metric due to the similarity in calculation between the two. Again we observe the peak, decline and follow through peak resulting from the pre 2007-2008 crises and resulting recovery

### 5.7 Economic Value Added ® (EVA) Sample Description

EVA is an estimation of the company's economic profit created in excess shareholders required return.

Figure 6: Mean of EVA Annually

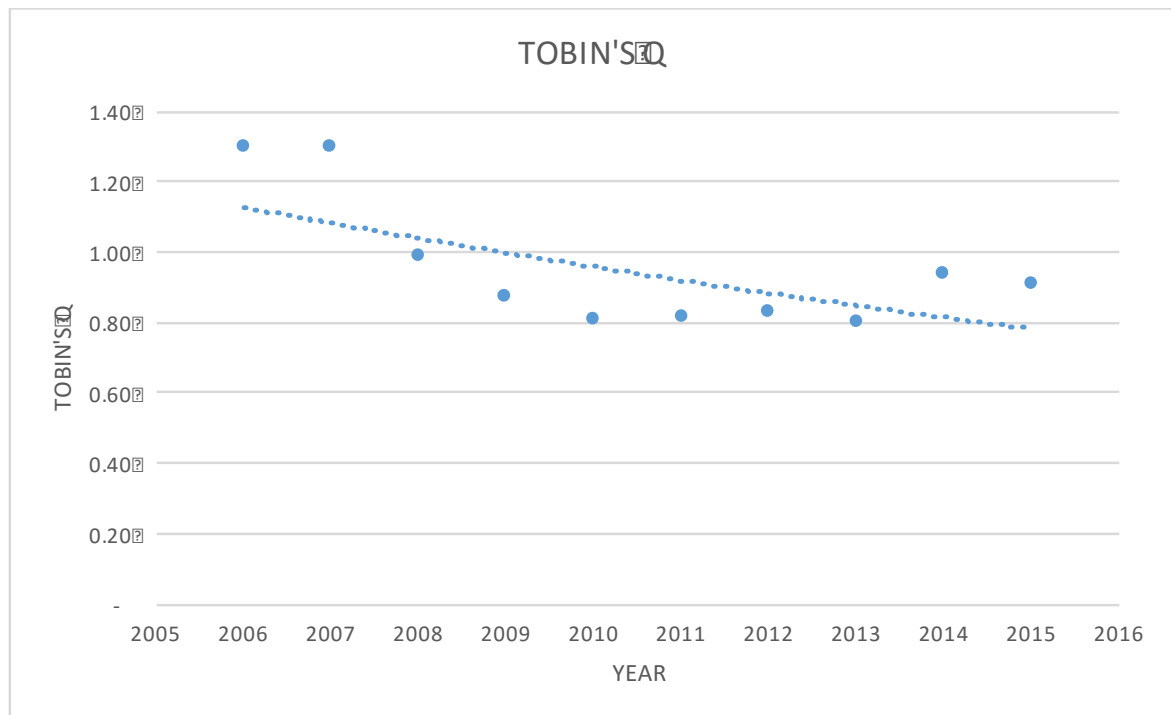


As can be seen, the mean EVA is negative implying the average company in the sample has not been meeting shareholders' required returns.

### 5.8 Tobin's Q Sample Description

A Tobin's Q ratio of between 0 and 1 implies that it is costlier to replace a company's assets than what the company is worth. Ratios over 1 indicate that the firm is overvalued relative to the replacement cost of the firm's assets.

Figure 7: Mean Of Tobin's Q Annually



Tobin's Q ratio steadily declines over the analysis period breaching the ratio of 1 in 2009 for the average company.

### 5.9 Test for Normality

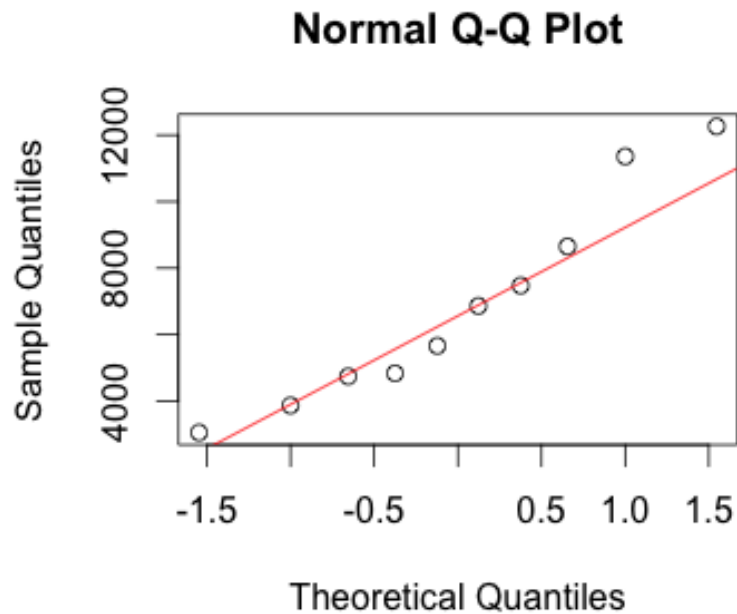
Potential candidates for correlation tests include the Pearson correlation and the Spearman's correlation. Pearson requires the variables to follow a Normal distribution whilst Spearman is a non-parametric method and does not require any assumptions for the variables.

The Shapiro-Wilk test for normality was conducted on the mean NED remuneration over the analysis period. Table x below illustrates the results.

Table 4: Shapiro-Wilk test for Normality on the Mean of NED Remuneration

Normality Test	
Shapiro-Wilk	0.92794
data:	data\$NED
W	0.92794, p-value
	0.428

Figure 8: Q-Q Plot



The p-value of 0.428 indicates that the NED remuneration is assumed to follow a Normal distribution. This is further illustrated by the Q-Q plot of the observations.

Thus the Pearson correlation is a viable correlation test should each dependent variable also meet the test for Normality.

Table 5: Shapiro Wilk Test for Normality for the Dependent Variables

Normality Test ROA	Normality Test EVA
Shapiro-Wilk normality test data: data\$ROA	Shapiro-Wilk normality test data: data\$EVA
W=0.88347, p-value=0.143	W=0.92186, p-value=0.3728
Normality Test ROE	Normality Test Q
Shapiro-Wilk normality test data: data\$ROE	Shapiro-Wilk normality test data: data\$Q
W=0.79599, p-value=0.01296	W=0.76537, p-value=0.005491

As we can see in the above Shapiro-Wilk tests for normality, ROA and EVA exhibit p-values of 0.143 and 0.3728 respectively and thus we may conclude that ROA and EVA do follow a Normal distribution. The p-values for ROE and Tobin's Q are significant at

the 5% confidence level and thus we may conclude that they do not follow a Normal distribution.

The Spearman correlation will be used for each hypothesis test to ensure consistency in comparing results. We are unable to consistently assess the Pearson correlation as not all variables are assumed to follow a Normal distribution.

### 5.10 Hypothesis 1 – There is a positive relationship between Non-Executive Director Remuneration and Company Performance Measured by Accounting/Internal Metrics

The researcher has tested the mean total NED remuneration against ROA and ROE to assess if any correlation exists between NED remuneration and a company’s internal performance measures.

#### 5.10.1 Hypothesis 1a – There is a positive relationship between Non-Executive Director Remuneration and ROA

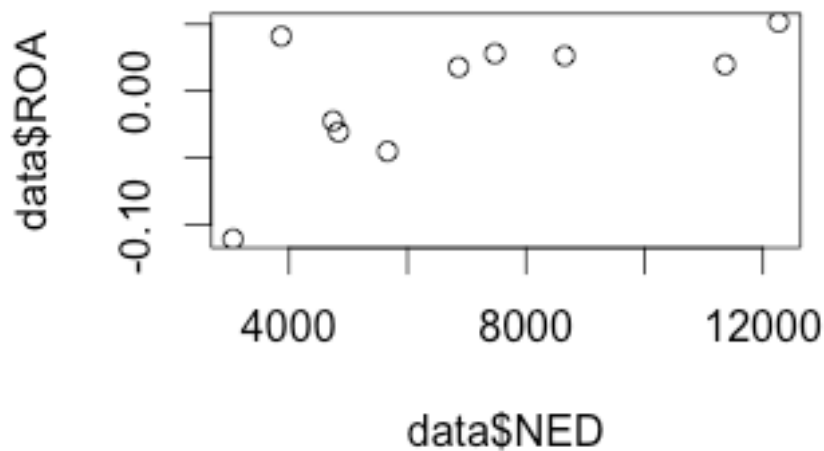
Spearman’s correlation coefficient was used as it is a non-parametric assessment and does not require the Normality assumption.

Table 6: Spearman’s Rank Correlation rho Testing NED and ROA

Spearman's Rank Correlation rho Testing NED and ROA	
data:	data\$ROA and data\$NED
SE:	0.09579
alternative hypothesis:	true rho is not equal to 0
sample estimates:	
rho	0.5636364

The p-value of the test results is significant at the 10% confidence level but not at the 5% level with p-value of 0.09579. This indicates the correlation is approaching significance. The Spearman’s rho of 0.56 indicates moderate correlation thus there appears to be positive impact on company ROA for increased NED remuneration spend.

Figure 9: Plot of Data for NED Remuneration against ROA



The positive correlation is also observed from a plot of the data points.

5.10.2 Hypothesis 1b – There is a positive relationship between Non-Executive Director Remuneration and ROE

Spearman’s correlation coefficient was used as it is a non-parametric assessment and does not require the Normality assumption.

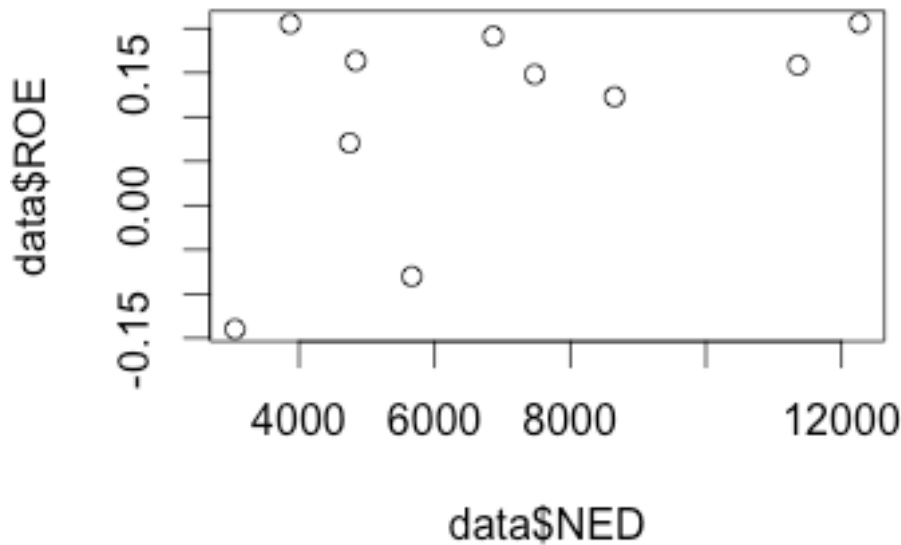
Table 7: Spearman’s Rank Correlation rho Testing for NED Remuneration and ROE

Spearman's Rank Correlation rho Testing NED and ROE	
data: data\$NED and data\$ROE	
S = 100, p-value = 0.2629	
alternative hypothesis: true rho is not equal to 0	
sample estimates:	
rho	0.3939394

The p-value of the test result is 0.2629 and is thus not significant at either the 5% or 10% level. The Spearman’s rho coefficient of 0.39 indicates a weak to moderate positive correlation, however the significance of the correlation result is not statistically significant. We are unable to draw further rigorous statistical insight as the ROE variable does not follow a Normal distribution and therefore we cannot employ the use of the Pearson correlation test to further analyse this relationship. Below is plot of the data.



Figure 10: Plot of Data for NED Remuneration against ROE



**5.11 Hypothesis 2 – There is a positive relationship between Non-Executive Director Remuneration and Company Performance Measured by External/Market Metrics**

The researcher has tested the mean total NED remuneration against EVA and Tobin's Q to assess if any correlation exists between NED remuneration and a company's market driven performance measures.

*5.11.1 Hypothesis 2a – There is a positive relationship between Non-Executive Director Remuneration and Tobin's Q*

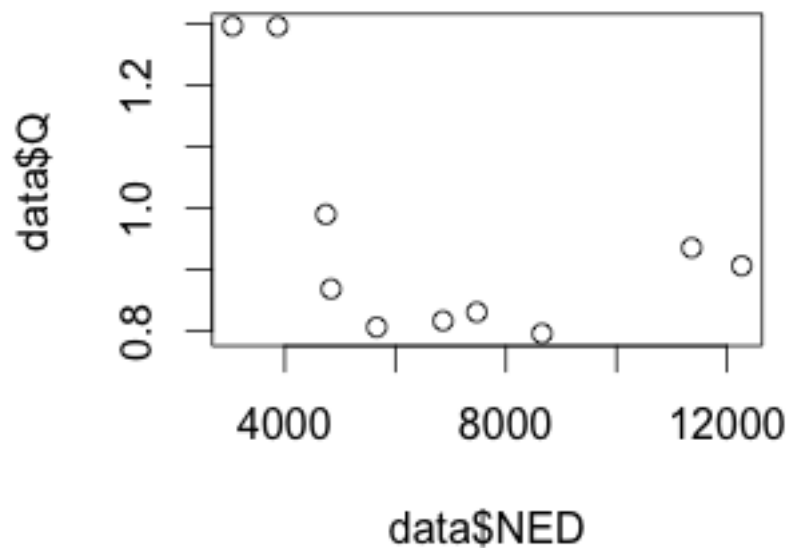
Again Spearman's correlation coefficient is used to test for any relationship between external company performance measures.

Table 8: Spearman's Rank Correlation rho Testing for NED Remuneration and Tobin's Q

Spearman's Rank Correlation rho Testing NED and Q	
data:	data\$NED and data\$Q
SE:	0.252, p-value: 0.1228
alternative hypothesis:	true rho is not equal to 0
sample estimates:	
rho	-0.5272727

The results of the test yield a p-value of 0.1228, whilst this is not statistically significant at the 5% or 10% level, the 12.28% p-value is approaching significance. The Spearman's rho of -0,52 would indicate moderate negative correlation to NED remuneration spend and the Tobin's Q performance measurement, however there can be no statistically rigorous conclusions drawn due to the non-significant p-value.

Figure 11: Plot of Data for NED Remuneration against Tobin's Q



5.11.2 Hypothesis 2b – There is a positive relationship between Non-Executive Director Remuneration and EVA

Again Spearman's correlation coefficient is used to test for any relationship between external company performance measures.

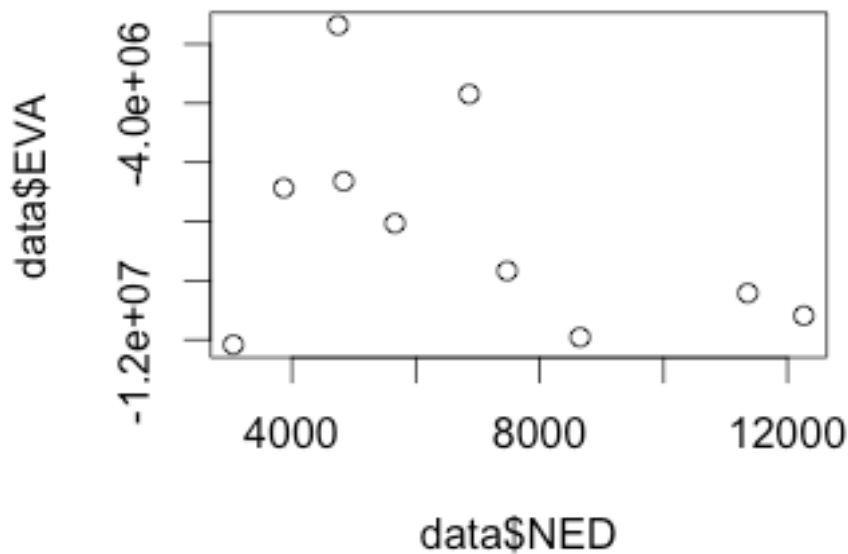
Table 9: Spearman's Rank Correlation rho Testing for NED Remuneration and EVA

Spearman's Rank Correlation rho Testing NED and EVA	
data:	data\$NED and data\$EVA
SE:	214, p-value: 0.407
alternative hypothesis:	true rho is not equal to 0
sample estimates:	
rho	-0.2969697

The p-value of the test result is 0.407 and is thus not significant at either the 5% or 10% level. The result reveals that there is no relationship between NED remuneration and EVA.

Below is a plot of the data:

*Figure 12: Plot of Data for NED Remuneration against EVA*



### 5.12 Sector analyses

To gain further insight, the researcher has analysed three high level sub-indices within the financial services. These sub-indices were selected as companies whose primary business operation relates to banking, insurance and all other remaining companies.

### 5.13 Banking sector

The below two outputs tests the correlation between the internal performance metrics of the banking sector:

Table 10: Spearman's Rank Correlation rho Testing for NED Remuneration and ROA in the Banking Sector

<b>Spearman's rank correlation rho testing NED and ROA</b>	
data: bdata\$NED and bdata\$ROA	
S = 84, p-value = 0.1544	
alternative hypothesis: true rho is not equal to 0	
sample estimates:	
rho	0.4909091

Table 11: Spearman's Rank Correlation rho Testing for NED Remuneration and ROE in the Banking Sector

<b>Spearman's rank correlation rho testing NED and ROE</b>	
data: bdata\$NED and bdata\$ROE	
S = 260, p-value = 0.08777	
alternative hypothesis: true rho is not equal to 0	
sample estimates:	
rho	-0.5757576

The results for the banking sector are interesting. The ROA metric approaches significance with a p-value of 0.1544 and the ROE metric is significant at the 10% level of confidence. However the results are contradictory indicating that higher NED remuneration does suggest higher ROA's and lower ROE's.

Table 12: Spearman's Rank Correlation rho Testing for NED Remuneration and EVA in the Banking Sector

<b>Spearman's rank correlation rho testing NED and EVA</b>	
data: bdata\$NED and bdata\$EVA	
S = 158, p-value = 0.9186	
alternative hypothesis: true rho is not equal to 0	
sample estimates:	
rho	0.04242424

Table 13: Spearman's Rank Correlation rho Testing for NED Remuneration and Tobin's Q in the Banking Sector

<b>Spearman's rank correlation rho testing NED and Q</b>	
data: bdata\$NED and bdata\$Q	
S = 86, p-value = 0.1661	
alternative hypothesis: true rho is not equal to 0	
sample estimates:	
rho	0.4787879

As can be seen above, whilst no test is significant for the market driven performance factors, the Tobin's Q metric does approach significance with a p-value of 0.1661 and does indicate that there is a moderately strong positive relationship between higher NED remuneration and Tobin's Q

#### 5.14 Insurance sector

The results of the internally driven company performance metrics are below:

Table 14: Spearman's Rank Correlation rho Testing for NED Remuneration and ROA in the Insurance Sector

<b>Spearman's rank correlation rho testing NED and ROA</b>	
data: idata\$NED and idata\$ROA	
S = 284, p-value = 0.02419	
alternative hypothesis: true rho is not equal to 0	
sample estimates	
rho	-0.7212121

Table 15: Spearman's Rank Correlation rho Testing for NED Remuneration and ROE in the Insurance Sector

<b>Spearman's rank correlation rho testing NED and ROE</b>	
data: idata\$NED and idata\$ROE	
S = 202, p-value = 0.5367	
alternative hypothesis: true rho is not equal to 0	
sample estimates:	
rho	-0.2242424

The p-value for the ROA metric is significant at the 5% confidence level and illustrates a strong negative correlation existing between NED remuneration and ROA. The ROE results is insignificant with a p-value of 0.5367.

*Table 16: Spearman's Rank Correlation rho Testing for NED Remuneration and EVA in the Insurance Sector*

<b>Spearman's rank correlation rho testing NED and EVA</b>	
data: idata\$NED and idata\$EVA	
S = 250, p-value = 0.1328	
alternative hypothesis: true rho is not equal to 0	
sample estimates:	
rho	-0.5151515

*Table 17: Spearman's Rank Correlation rho Testing for NED Remuneration and Tobin's Q in the Insurance Sector*

<b>Spearman's rank correlation rho testing NED and Q</b>	
data: idata\$NED and idata\$Q	
S = 214, p-value = 0.407	
alternative hypothesis: true rho is not equal to 0	
sample estimates:	
rho	-0.2969697

The results for the market driven performance measures indicate that a moderately negative correlation exists between for EVA with the p-value approaching significance at 0.1328. The p-value for Tobin's Q is insignificant at 0.407 and thus we cannot draw any conclusions.

Thus for the Insurance sector, the data suggests that higher NED remuneration is associated with inverse internal and market driven company performance metrics.

### 5.15 Other Companies

The results for the remaining companies are below.

Table 18: Spearman's Rank Correlation rho Testing for NED Remuneration and ROA for "Other" Companies

<b>Spearman's rank correlation rho testing NED and ROA</b>	
data: odata\$NED and odata\$ROA	
S = 76, p-value = 0.1133	
alternative hypothesis: true rho is not equal to 0	
sample estimates:	
rho	0.5393939

Table 19: Spearman's Rank Correlation rho Testing for NED Remuneration and ROE for "Other" Companies

<b>Spearman's rank correlation rho testing NED and ROE</b>	
data: odata\$NED and odata\$ROE	
S = 110, p-value = 0.3488	
alternative hypothesis: true rho is not equal to 0	
sample estimates:	
rho	0.3333333

The p-value for ROA approaches significance at 0.1133 and suggests that a moderate positive relationship exists between NED remuneration and ROA. The ROE p-value is insignificant and thus we cannot draw any conclusions to its correlation with NED remuneration.

Table 20: Spearman's Rank Correlation rho Testing for NED Remuneration and EVA for "Other" Companies

<b>Spearman's rank correlation rho testing NED and EVA</b>	
data: odata\$NED and odata\$EVA	
S = 290, p-value = 0.01592	
alternative hypothesis: true rho is not equal to 0	
sample estimates:	
rho	-0.7575758

Table 21: Spearman's Rank Correlation rho Testing for NED Remuneration and Tobin's Q for "Other" Companies

<b>Spearman's rank correlation rho testing NED and Q</b>	
data: odata\$NED and odata\$Q	
S = 266, p-value = 0.06647	
alternative hypothesis: true rho is not equal to 0	
sample estimates:	
rho	-0.6121212

The p-values for both EVA and Tobin's Q are significant at a 10% level. Both suggest that there is moderate to strong negative relationship between market driven performance measures and NED remuneration. This contrasts with what is seen above with the internal ROA for companies in the financial services industry that are not primarily banks or insurers.



## Chapter 6: Discussion of Results

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### 6.1 Introduction

This chapter discusses the results of statistical tests that were performed and reported on in chapter five: *Research Results*. The discussion provides context to the results according to the developed hypotheses and the academic literature.

The Shapiro-Wilk test for normality was performed to determine which statistical tool to determine if a relationship existed between NED remuneration and company performance via correlation testing. The Spearman's rank correlation test was selected to perform the correlation analysis. This is a non-parametric method and does not require the data to follow any underlying distribution assumptions.

### 6.2 Sample Demographics

A period of 10 years (2006 – 2015) was selected for the analysis to ensure that data represented a business cycle. During the period of study the financial crisis occurred during 2008 – 2009. Descriptive statistics were performed on the independent variable (NED Remuneration) and the dependent variables (ROA, ROE, Tobin's Q and EVA) to describe data features of the study. The descriptive statistics tested for mean, minimum and maximum values of the data.

The NED remuneration increased at an average of about 15% per year from 2006 – 2015. This could indicate that firms place value via remuneration to ensure that NEDs' appointed have the appropriate independence for monitoring, skills and competencies to contribute and challenge decisions of management and have large networks that can be utilised to benefit the firm.

### 6.3 Discussion of Hypothesis 1

The first hypothesis examined if there is a positive relationship between NED remuneration and company performance measured by accounting/internal metrics

#### 6.3.1 Discussion of Hypothesis 1a

The first sub hypothesis aimed to determine if there is a positive relationship between Non-Executive Director Remuneration and Return on Assets as a company performance measure.

The results indicate that there is a significant moderately strong positive correlation between NED remuneration and ROA with a p-value of 0.09579 and a correlation rho of 0.56. The result is in line with the agency theory and resource dependency theory which support that the NED was paid higher, because of experience, ability to obtain resources and through the better monitoring of the company as an agent which led to improved company performance. This is in line with the agency theory suggestions that NEDs act as effective monitors to management (agents) which will lower the agency costs and increase financial performance (Fama, 1980; Fama & Jensen, 1983; Nicholson & Kiel, 2007).

The result is also in line with the resource dependency theory which suggest that NED with strong networks can be used to the benefit of the firm and will improve financial performance (Davis & Cobb, 2009; Nicholson & Kiel, 2007).

The result is further supported by a similar study performed in India by Aggarwal and Ghosh (2015) where it was also found that director remuneration had a positive correlation to accounting measures (ROA) for company performance. This however was not found in an Australian study performed (Bugeja et al., 2014) which found that NED remuneration was not positively correlated with accounting based company performance measures. This may indicate alignment to similar emerging markets economy trends, as noted in India, and the results are not aligned to first world trends, as noted in Australia. The result achieved also indicates that strong monitoring by NEDs leads to better accounting measures (Mallin et al., 2015; Nicholson & Kiel, 2007)

### 6.3.2 Discussion of Hypothesis 1b

The second sub hypothesis for internal company performance measures aimed to determine if there is a positive relationship between Non-Executive Director Remuneration and Return on Equity as a company performance measure.

The results between NED remuneration and ROE is not significant with a p-value of 0.2629. We cannot conclude whether any correlation exists in this regard. The non-significant p-value could be due to the small sample size and further research may provide insight into any correlation that may exist in the South African context.

Previous literature on similar studies have had mixed results with an emerging markets study by Arora and Sharma (2016) found that there was no correlation between corporate governance indicators and company performance (ROE). Muniandy and Hillier

(2015) however found that there was a positive relationship between board independence and ROE in a study performed in South Africa.

### 6.3.3 Sector analysis:

#### **Banking**

ROA displays a weak trend towards significance with a p-value of 0.1544. It cannot be concluded that a correlation exist due to no significance.

ROE is significant with the p-value equal to 0.0877 and a correlation rho of -0.575. This indicates that a moderately strong negative correlation exists between NED remuneration and ROE.

The results for NED remuneration and accounting measures for banks contrast the industry results. This could be because of the high costs of skilled NED for the business however they have a big impact in monitoring to cut the agency costs or do not utilise their networks to enhance the firm. This could be a result of the stringent regulation that is implemented that has monitoring elements embedded into it

#### **Insurance**

The correlation between NED remuneration and ROA is significant with the p-value equal to 0.0241 and a correlation rho of -0.721. This suggests a strong negative correlation exists.

The result for ROE is non-significant with a p-value of 0.5367 and thus we are unable to conclude that a relationship exists between NED remuneration and ROE.

Insurance firms are capital intensive businesses. Without a common regulatory framework, like in the banking sector, the result could imply that insurance entities are not maintaining optimal capital structures (Financial Services Board, 2012).

#### **Other Sectors**

The p-value for the correlation between NED remuneration and ROA approaches significance with the value being 0.1133 and a correlation rho of 0.539. If significance can be reached there will a moderately strong positive correlation. This will be in line with the industry result.

This also follows literature that achieved a similar result (Aggarwal & Ghosh, 2015; Munisi & Randøy, 2013) and agency theory and resource dependency theory, which state that an increase in remuneration should be directly related to company performance.

The relationship between NED remuneration and ROE is not significant with the p-value equal to 0.3488. We are unable to conclude that a relationship exist between NED remuneration and ROE and further research may provide insight into this.

The results achieved by the other companies are in line with the collective result.

### **Hypothesis 1 Conclusion**

There is evidence that there is a positive relationship between internal company performance measurement of ROA and NED remuneration within the South African Financial Services Industry.

The ROA result is in line with literature and theory. Agency theory and resource dependency theory state that strong monitoring and the use of a NED's networks will benefit firm performance. This is partly a result of minimising the agency costs between management and the shareholder.

The result also aligns to research in an emerging economy, India, where (Aggarwal & Ghosh, 2015) found that NED remuneration is positively correlated with internal/accounting company metrics (ROA) which could imply effective monitoring to reduce the agency costs or effective use of NED networks to benefit the firm

It also aligned to a Sub-Sahara African based study between corporate governance and company performance (Munisi & Randøy, 2013), in which the results showed a positive relationship between corporate governance measures and ROA.

While it is apparent from the statistical test results that there is a positive correlation between NED remuneration and ROA, it must be noted that a major downfall of accounting metrics is that it can be manipulated legally to make the figures seem favourable (Kouki & Guizani, 2015; Munisi & Randøy, 2013; Simpson & Kohers, 2002).

*Hypothesis 1a - There is a positive relationship between Non-Executive Director Remuneration and Return on Assets is accepted.*

### **Hypothesis 1b**

We unfortunately cannot draw conclusions for the relationship between ROE and NED remuneration because the tests showed no significance. A larger sample could possibly achieve significance with regards to ROE correlation testing. We cannot confirm what theory and literature specify.

There have been mixed results in similar studies. A study in Australia found that there was no relationship between NED remuneration and accounting metrics of company performance (Bugeja et al., 2014) which could have been a result of the costs of NED remuneration outweighing the reduction in the agency costs.

*Unfortunately it cannot be concluded whether there is “There is a positive relationship between Non-Executive Director Remuneration and Return on Equity”*

From the results it can be concluded that there is a positive relationship between NED remuneration and company performance measured by accounting metrics.

## 6.4 **Hypothesis 2**

Hypothesis 2 aimed to find a relationship between Non-Executive Director Remuneration and external/market driven company performance measures. The hypothesis was divided into two sub-hypothesis, Tobin’s Q and EVA as measures of company performance to determine if a positive relationship exist with NED remuneration.

### 6.4.1 *Discussion of Hypothesis 2a*

The aim of the research for Hypothesis 2a was to find if a positive relationship between Non-Executive Director Remuneration and Tobin’s Q as an external/market driven Company Performance measure exists.

The p-value between NED remuneration and Tobin’s Q is 0.1228 and approaches significance but it could not be concluded that a relationship exists in this regard.

Past research that measured NED remuneration and Tobin’s Q and corporate governance elements against Tobin’s Q have provided mixed results in a different context. A study in India found that there that there was no significant correlation between NED remuneration and Tobin’s Q (Aggarwal & Ghosh, 2015). Contrasting results were achieved in corporate governance studies against company performance in South Africa and Sub-Saharan Africa. Ntim (2013) concluded that there was a positive relationship between corporate governance elements and Tobin’s Q as a company performance

measure. It was asserted that investors place value on firms with strong corporate governance structures.

#### 6.4.2 *Discussion of Hypothesis 2b*

Hypothesis 2b evaluated if there was a positive relationship between Non-Executive Director Remuneration and Economic Value Added.

The results between NED remuneration and EVA are not significant with a p-value of 0.407. It can be concluded that no relationship exists between NED remuneration and EVA. The result is similar to the findings of a study in Australia, where it was found that there was no significant relationship between corporate governance elements and EVA.

#### 6.4.3 *Sector analysis:*

##### **Banking**

Tobin's Q approaches significance with a p-value of 0.1661 and it cannot be concluded that a correlation exists between NED remuneration and Tobin's Q in the banking sector. If significance can be achieved there will be a moderate positive correlation between NED remuneration and company performance.

EVA has a p-value of 0.91 and it can be concluded that no relationship exists between NED remuneration and EVA. The research conducted has a number of limitations that should be considered during the study

##### **Insurance**

The results between NED remuneration and Tobin's Q is not significant with a p-value of 0.2629. It cannot be concluded that any correlation exists in this regard. The non-significant p-value is possibly due to the small sample size and further research may provide insight into any correlation that may exist in the South African context.

The relationship between NED remuneration and EVA approaches significance with a p-value of 0.1328 and could demonstrate a moderately strong negative correlation if significance is achieved between NED remuneration and EVA within the Insurance sector. This could indicate that investors do not place economic value on NED remuneration and the firm's in the insurance industry. This could be because, the insurance industry has not had as strict regulations for optimal capital management. With the upcoming implementation of Solvency Assessment and Management across the

insurance industry, investor perceptions on NEDs remuneration and its relationship to economic company performance may change (Financial Services Board, 2012).

### **Other Sectors**

The correlations between NED remuneration and both Tobin's Q and EVA are both statistically significant and have a strong negative correlation.

Investors do not place value on the value of NED remuneration and its effect on Tobin's Q and EVA.

#### *6.4.4 Hypothesis 2 Conclusion*

### **Hypothesis 2a**

It cannot be firmly concluded that a relationship exists between NED remuneration and the external market measurement metrics for Tobin's Q. The results achieved did not show any significance in the relationships between NED remuneration and Tobin's Q. This could be due to the relatively small sample that was used for this study.

Previous literature in South Africa has found a positive correlation between corporate governance elements and Tobin's Q (Ntim, 2013). The research concluded that investors place value on the implementation of strong corporate governance frameworks in the company (Ntim, 2013).

Research performed in India by Aggarwal & Ghosh (2015) concluded that investors do not attribute firm value to NED remuneration in emerging markets. This could be because of the skills shortages in emerging market economies and the demand for such skills leads to NEDs being elected to multiple boards. This could diminish the value that they offer to a particular board (Arora & Sharma, 2016).

The research results do not provide conclusive evidence that a positive relationship exists between NED remuneration and Tobin's Q.

### **Hypothesis 2b**

The results of NED remuneration and EVA with a p-value of 0.407, provides evidence that there is no relationship between the two variables.

The result is not in line with agency theory and resource dependency theory which does state that highly remunerated NEDs are usually highly skilled and experienced and are

effective monitors between management and the shareholder (Nicholson & Kiel, 2007). Additionally highly remunerated NEDs are seen to have a vast network that can be used to benefit the firm and create shareholder value (Valenti et al., 2011).

It can be concluded that there is no positive relationship between NED remuneration and EVA. The result of no relationship between NED remuneration and company performance is in line with results achieved in two studies on corporate governance and company performance performed in India (Aggarwal & Ghosh, 2015; Arora & Sharma, 2016).

The overall conclusion for hypothesis 2 is that there is no relationship between NED remuneration and company performance. The result could be due to external factors that may be out of the control of the firm (Kouki & Guizani, 2015; Pamburai et al., 2015). It could further imply that investors have a lack of trust in NEDs' skills and ability to improve firm performance after the global financial crisis (Hahn & Lasfer, 2010).

The results achieved are in line with a study performed in Australia by Pham et al. (2011), which concluded that there was no detectable relationship between governance elements and EVA. The study further concluded that the relationship between governance elements and Tobin's Q was not significant.

## 6.5 Conclusion

The main theoretical lens for the study was agency theory and resource dependency theory.

Agency theory states that NEDs are monitors for shareholder, to ensure that management do not pursue personal goals. This reduces the agency costs and leads to improved company performance (Fama, 1980; Fama & Jensen, 1983). Research further state that to obtain highly effective monitors, the firm would usually pay a higher remuneration to the NED (Goh & Gupta, 2015; Nicholson & Kiel, 2007).

Resource dependency theory states that NEDs with vast networks that could benefit the firm will command higher remuneration because of the benefit they bring to the organisation (Hillman & Dalziel, 2003; Nicholson & Kiel, 2007; Valenti et al., 2011).

Previous studies in corporate governance and company performance and NED remuneration and company performance provide mixed results.



Hypothesis 1a indicates that a positive relationship exist between NED remuneration and ROA. This provides insights that NEDs are acting as effective monitors to lower the agency costs and using networks for the benefit of the firm (Nicholson & Kiel, 2007).

Hypothesis 1b did not provide conclusive results to make a decision if a relationship exists between NED remuneration and ROE. This could be attributed to the small sample used in the study.

It can be concluded based on the results of Hypothesis 1a and 1b that there is a positive relationship between NED remuneration and accounting company performance measures, which is in line with literature Aggarwal and Ghosh (2015) and agency theory and resource dependency theory.

Hypothesis 2a also did not provide significance that could provide a conclusion on the relationship between NED remuneration and Tobin's Q. This result matches the result achieved by Pham et al. (2011).

Hypothesis 2b indicated through a weak p-value of 0.407 that no relationship exist between NED remuneration and EVA.

It can be concluded that based on the results for Hypothesis 2a and 2b that there is no relationship between NED remuneration and market company performance measures. This would suggest that the value of NEDs (skills, experience, networks and monitoring capabilities) needs to be communicated to investors.

## Chapter 7: Conclusion

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### 7.1 Introduction

Due to the financial crisis of 2007 – 2009 and other big corporate failures such as Enron and Lehman Brothers, there has been increased scrutiny on NEDs, with investigations being conducted with regards to the actual role that they provide as board members (Hahn & Lasfer, 2010). South Africa has not been immune to corporate failures with Fidentia Asset Management and African Bank, two major financial institutions, collapsing in 2007 and 2014 respectively. This led to substantial losses for investors.

NEDs through their independence are required to act as monitors for companies, protecting shareholder interest from the personal interest of management. This would also require NEDs to ensure adequate governance structures exist within the firm so as to promote transparency (Institute of Directors Southern Africa, 2009). NEDs should have adequate skills to contribute to decision making that is in line with shareholder requirements. NEDs further bring large networks that if harnessed correctly, could benefit the firm performance (Valenti et al., 2011).

Prior studies have identified the lack of in-depth research into NED remuneration as compared to executive remuneration and the importance of understanding NED remuneration in this critical era (Mallin et al., 2015). Studies also confirmed that there is a lack of corporate governance and how it related to company performance research in a South African context. (Ntim, 2013; Pamburai et al., 2015).

The research aimed to determine if there was a positive relationship between NED remuneration and company performance in the financial sector.

A quantitative study was performed using available company secondary data. NED remuneration and company performance data, as defined in the hypothesis, were gathered for a period of 10 years from 2006 – 2015 from McGregor BFA. NED remuneration was the independent variable and company performance measures were the dependent variable for the study.

Correlation testing was performed to determine if any relationships existed for the hypothesis.

## 7.2 Summary of main findings

The results between NED remuneration and company performance measured by accounting metrics offered a mixed set of results.

NED remuneration and ROA testing found that there was a significant moderately strong positive correlation. This was in line with prior research in an emerging market context (Aggarwal & Ghosh, 2015) and with the theories applied; agency theory and resource dependency theory.

NED remuneration and ROE was not significant and no conclusions could be drawn from the tests conducted.

It was concluded that there was a positive relationship between NED remuneration and company performance measured by accounting metrics. This result was in line with the agency theory which postulates that a NED, through strong monitoring will reduce the agency costs and this could lead to better company performance (Nicholson & Kiel, 2007). The result is also in line with resource dependency theory, which states that a director that has a wide network could use it to benefit the firm (Nicholson & Kiel, 2007).

It was concluded for hypothesis 1 that there is a positive relationship between NED remuneration and accounting company performance measures.

The results between NED remuneration and company performance measured by market metrics indicate that no relationship exists in this regard. This could further indicate that investors do not place value on NED remuneration to affect company performance. This result is consistent with literature with similar results being achieved in India and Australia (Aggarwal & Ghosh, 2015; Arora & Sharma, 2016; Pham et al., 2011).

It could not be concluded whether a positive relationship existed between NED remuneration and Tobin's Q due to non-significance. This could be attributed to the small sample used.

It was concluded that there was no relationship between NED remuneration and EVA. The statistical tests produced a p-value of 0.407.

The overall conclusion for hypothesis 2, was to determine if a positive relationship existed between NED remuneration and market company performance measures. The result is that no relationship exist.

The result of hypothesis 2 is not in line with the agency theory and resource dependency theory. There is no link between NED remuneration and company performance in the view of the investor.

The research has contributed to the body of knowledge about NED remuneration and company performance in the financial services sector in South Africa. The result that there is no relationship between NED remuneration and company performance measured by market metrics does not align with the theories used for this study. It could be investigated to ensure that agency theory is still relevant in today's environment. Research has argued that it is one dimensional and that could explain why it was concluded that there is no relationship with market metrics. There are many other factors that need to be considered in the open market.

### 7.3 Future Research

The research identifies possible links between NED remuneration and company performance in the financial services industry in South Africa.

*Future research could consider the following:*

Expanding the study across industries in the South African market to determine the impact of NED remuneration and company performance in other industries or across industries.

Consider separating chairperson remuneration and NED remuneration to gather further insights into the differences in roles as well as remuneration and the drivers for it.

Perform comparative studies with other developed and emerging economies against the South African context. This could provide valuable learnings about NED roles and responsibilities, remuneration and effectiveness.

Perform a study that considers a multi-layer agency theory approach which will consider other stakeholders impacted.

Future research could include a bigger sample size and more statistical tests.

Future research of NED remuneration and company performance could use a time period of more than ten years.

Future research could consider examining individual NED remuneration, their characteristics and individual company performance measures.

## 7.4 Limitations

The research conducted has a number of limitations that were considered during the study:

The research only considers a specific relationship between NED remuneration and the company performance. It does not consider the other factors that influence NED remuneration and company performance.

The research did not distinguish between the chairperson remuneration and NED remuneration of the firm. Chairperson remuneration is usually higher than NED remuneration. For the purposes of this research the two were analysed as the same.

The research is only conducted in one industry in South Africa. The information may not be transferrable to other industries and other countries.

The research did not consider sectors within the financial services industry at a granular level to determine what the key differences are and what drives NED remuneration.

## 7.5 Conclusion

Goh and Gupta (2015) state that there has been little research performed to understand NED remuneration.

The aim of the study was to determine if there was a relationship between NED remuneration and company performance within the financial services sector in South Africa.

The study provides interesting insights into NED remuneration and company performance. While there is a positive relationship between NED remuneration and accounting metrics, it was concluded that there is no relationship between NED remuneration and market metrics. This would suggest that the value of NEDs needs to be communicated to investors.

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## Appendix A – Population Companies

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Company	
African Equity Empowerment Investments Limited	London Finance and Investment Group P.L.C.
Barclays Africa Group Limited	Nedbank Group Limited
Brait	Old Mutual PLC
Brimstone Investment Corporation Limited	Peregrine Holdings Limited
Capitec	PSG Group Limited
Conduit Capital Limited	Purple Group Limited
Coronation Fund Managers Limited	RMB Holdings Limited
Discovery Holdings Limited	Sabvest Limited
ECSPonent Limited	Sanlam Limited
Firststrand Limited	Santam Limited
Hosken Consolidated Investments Limited	Sasfin Holdings Limited
Investec PLC	Standard Bank Group Limited
JSE Limited	Stellar Capital Partners Limited
Liberty Holdings Limited	Trematon Capital Investments Limited

## Appendix B – Average Exchange Rates

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Average Exchange Rates:

Year	USD	GBP
2015	11.64	18.29
2014	10.40	16.90
2013	8.94	14.03
2012	7.80	12.36
2011	7.10	11.23
2010	7.64	12.02
2009	8.85	14.29
2008	7.43	14.60
2007	7.10	13.76
2006	6.50	11.70

(South African Revenue Service, 2016)