

**Determinants of CEO Remuneration, for JSE listed Financial Service  
Organisations.**

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## **Abstract**

**Research Background:** Years of academic research has resulted in an inconclusive view on which factors determine a CEOs remuneration. As such, the quantum of the wage premium paid to CEOs, relative to employees at all other levels, has been a contentious topic that has been discussed for decades, with research on the topic dating back to the 1980s. In the late 2000s, the topic resurfaced in the media, after CEOs of multinational corporations had been linked to the outcomes of various scandals. And evidence showed that there was a positive link between the risky actions taken by CEOs, incentivised by their remuneration structure, which contributed to the financial crisis of 2008.

**Research Purpose and Design:** The purpose of this study was to determine whether organisation size and organisation performance were determinants of CEO remuneration, and to what degree. The study focussed on JSE listed organisations in the financial services sector. And the sample was made up of the top 15 organisations, based on their market capitalisation. Data was collected over a five-year period, spanning 2015-2019.

**Main Findings:** The main findings of this research indicate that organisation size is not a significant determinant of CEO remuneration, for financial services organisations, listed on the JSE. In contrast, organisation performance was found to be a significant determinant of CEO remuneration. These findings add to the body of knowledge on this topic and create an evidence base, showing that the remuneration packages set by these organisations, are performance driven.

**Key Words:** CEO Remuneration, Financial Services, Organisation Size, Organisation Performance, South Africa

## **Declaration**

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

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1<sup>st</sup> December 2020

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## **Chapter 1: Introduction**

### **1.1 Background and Research Problem**

Chief Executive Officers (CEOs) are board elected leaders tasked with the responsibility to implement an organisation's strategic plans, as set out by the board of directors. CEO remuneration, more specifically, refers to the pay received by these individuals as the CEO of the organisation.

Given the nature and complexity of the role, CEOs are typically highly educated, skilled, and experienced individuals who have gained management prowess through their tenure in leadership roles (Acero & Alcalde, 2019). Therefore, it can be argued that to acquire and retain individuals of this calibre, a wage premium may be necessary and is used as an incentive to acquire talent, and to influence actions that drive performance within the organisation, to maximise shareholder returns. Hayek, Thomas, Novicevic, and Montalvo (2015) state that human capital plays a role in remuneration setting but goes further to state that social and institutional pressures also play a role in the process, which could explain why the remuneration of a CEO is so markedly different from other employees within the organisation.

The quantum of the wage premium paid to CEOs, relative to employees at all other levels, has been a contentious topic and has been discussed for decades, with research on the topic dating back to the 1980s. In the late 2000s, the topic resurfaced in the media after CEOs of multinational corporations had been linked to the outcomes of various scandals and evidence showed that there was a positive link between the risky actions taken by CEOs, incentivised by their remuneration structure, which contributed to the financial crisis of 2008 (Gande & Kalpathy, 2017). In the USA, Chamorro-Premuzic (2014) stated that despite their poor decision making, banking CEOs in particular, had been sheltered from the effects of their bad decisions even though their actions had a major impact on a multitude of stakeholders, at a global level.

Prime examples of this is John Thain's spend of ~\$1.2 million of Merrill Lynch's funds on an office redesign, amidst the 2008 financial crisis, and Lloyd Blankfein who was still one of the highest-paid bankers at Goldman Sachs, even after admitting to selling bad bonds

to clients, which contributed considerably to the financial crisis of 2008 (Chamorro-Premuzic, 2014). As such, at a global level, stakeholders are asking for more transparency in the remuneration process and a better understanding of what is used to determine CEO remuneration, to ensure that their best interests are being upheld.

## **1.2 Research Motivation**

With a period of poor economic growth and high unemployment in South Africa, the wage gap between general employees and CEOs in 2018 was 9.2, 11.62, and 19.51 times higher for small, medium, and large organisations, respectively (Morton, 2018). The complexity of their role, the value derived from them, and the need to attract and retain top talent, are three justifications typically used to justify the remuneration paid to CEOs (Acero & Alcalde, 2019). However, Sur, Magnan, and Cordeiro (2015) state that “despite decades of research, how CEO remuneration is determined remains an enigma” (p. 30). Therefore, it is clear that even after extensive research, there doesn’t seem to be consensus on a model, set of variables, or a consistent view that defines the principles of remuneration setting, at the CEO level, across organisations or industries.

More specifically, the South African financial services industry, which has been riddled with criticism about their high transaction fees and poor attempts to drive financial inclusion, boast high CEO remuneration which has grown astronomically over a short space of time. In the 2019 executive directors report, compiled by PricewaterhouseCoopers, they indicated that the financial services sector made up 15.71% of the total JSE market capitalisation. The report concluded that the 2019 median total annual package, of financial services CEOs, increased by 5,4% to R 9 600 000, further widening the pay gap between the highest and lowest paid employees (Temkin, 2020). As such, the variation in earnings between corporate elites and blue-collar workers has resulted in a Gini coefficient of 63.9 which is one of the highest rates in the world (Ryder, 2019). With no clear indication of what determines CEO remuneration, the view stays that CEO compensation is exorbitant and unjustifiable.

Over time, two primary schools of thought, on the determinants of CEO remuneration, have emerged. The optimal contracting approach which theorises that CEO pay is driven by efficient bargaining between shareholders and CEOs, to alleviate the agency-principal

problem. And the Managerial power approach which theorises that CEOs, as rent-seekers, set their pay (Bussin and Ncube, 2017) and can extract higher remuneration by exploiting their advantage (Acero and Alcalde, 2019).

Data regarding CEO remuneration is usually made up of financial and non-financial awards which include a guaranteed cost-to-company (CTC), short-term and long-term incentives (Bussin, 2011). As such, there has been a great deal of deliberation about why CEO remuneration differs from the remuneration structures for all other employees and is made up of various components such as fixed remuneration, stocks, options, and bonuses. Hogan and Jones (2016) stated that “conventional wisdom for CEO remuneration has been to increase the equity component of pay to better align management interests with shareholder interests” (p. 321). In addition, Gaye, Li, and Miller (2018) state that “unlike the input of physical capital that can be easily measured, the input of managerial effort is hardly measurable and cannot be directly traded” therefore “a principal-agent problem, called moral hazard, arises when self-interested managers intend to secretly choose an effort level different from what would maximize the benefits of shareholders” (p. 202). On this basis the complex pay structure, as it relates to CEOs, can be attributed to agency theory.

This study seeks to identify the relationship and strength of the relationship that an organisation's size and performance have on the components of CEO remuneration. The findings will add to the body of knowledge on this topic and create an evidence base, showing whether these exorbitant remuneration packages are performance driven or if they are merely driven by the managerial power. In addition, a baseline for best practice will be created, enabling remuneration committees to leverage when setting CEO remuneration, to ensure that the outcomes driven by remuneration are in line with the best interests of all stakeholders within the organisation.

### **1.3 Research Objective**

There has been isolated research done, where researchers have tested organisation size or organisation performance to establish the relationship that these variables have on CEO remuneration. However, there has been limited research done on testing the relationship of both variables (organisation size and organisation performance) on the

elements of remuneration, in a single study. For the purposes of this study, proxy variables will be used to measure the direction and degree of influence that organisation size and organisation performance have, on the different components of CEO remuneration (fixed, variable and total), by testing the following research hypotheses:

**Hypothesis One:**

Organisation size is a significant determinant of fixed remuneration, for CEOs of financial services organisations, listed on the JSE

**Hypothesis Two:**

Organisation size is a significant determinant of variable remuneration, for CEOs of financial services organisations, listed on the JSE

**Hypothesis Three:**

Organisation size is a significant determinant of total remuneration, for CEOs of financial services organisations, listed on the JSE

**Hypothesis Four:**

Organisation performance is a significant determinant of fixed remuneration, for CEOs of financial services organisations, listed on the JSE

**Hypothesis Five:**

Organisation performance is a significant determinant of variable remuneration, for CEOs of financial services organisations, listed on the JSE

**Hypothesis Six:**

Organisation performance is a significant determinant of total remuneration, for CEOs of financial services organisations, listed on the JSE

The outcomes of hypotheses one, two, and three will confirm whether organisation size is a significant determinant of fixed remuneration, variable remuneration and total remuneration, of financial services CEOs, and to what degree. Similarly, the outcomes of hypotheses four, five and six will confirm whether organisation performance is a significant determinant of fixed remuneration, variable remuneration and total remuneration, of financial services CEOs, and to what degree.

#### **1.4 Research Scope**

This research will focus primarily on remuneration earned by the CEO, as the highest-ranking employee of the organisation, with the highest decision-making rights and influence over organisation size and performance. The research will be confined to financial services organisations, listed on the Johannesburg Stock Exchange (JSE) and the period of analysis will be between 2015 and 2019. Remuneration under analysis will be divided into two distinct categories:

- a) Fixed pay which refers to the elements of remuneration that are guaranteed and has two sub-categories.
  - i. Basic salary which refers to the cash component of remuneration paid by the employer.
  - ii. Benefits which refers to the employer contributions that are paid to or on behalf of the employee such as car allowances, pension funds, and medical aid contributions.
  
- b) Variable pay is typically linked to one or more performance-based outcomes and has two sub-categories.
  - i. Short-term incentives that are typically paid in the form of a cash bonus related to the performance achieved in respect of the previous/current financial year (12 months).
  - ii. Long-term incentives that typically take a long-term view and account for a period longer than one financial year (12 months). The make-up of these rewards is either in cash (deferred bonuses) or equity, where equity refers to share options.

For the purposes of this study, only fixed remuneration and short-term incentives will be included. Core, Holthausen, and Larcker (1999) state that LTIs are pegged to performance over a future period and although provisioned for, are not guaranteed. Therefore, including LTIs can be problematic in a study of this nature and may distort the results (Core, Halthausen, & Larcker, 1999). For this reason, LTIs have been excluded from the scope of this study.

## **1.5 Introduction Summary**

Years of academic research has not resulted in a conclusive view on what factors determine a CEO's remuneration. Organisation size and performance have been tested in isolation to determine whether they have an influence on CEO remuneration, and to what degree, but few studies have tested both variables on the components of CEO remuneration. Chapter one of this report provides a brief background to the research problem and highlights the motivations, objectives, and scope of the study.

This study will build on the existing literature on this topic and aims to determine the relationship that exists between organisation size and organisation performance on the components of CEO remuneration. In addition, the degree of influence and direction of the influence will be noted and compared across a homogenous group of companies, within the South African financial services sector. Chapter 2 of the study will include a review of available literature on the topic, with a particular focus on the role of the CEO, how a CEO's remuneration is set, and the theories behind CEO remuneration-setting, such as agency theory, optimal contracting, and the managerial power approach. Also, literature relating to organisation size and organisation performance, on CEO remuneration, will be reviewed.

Chapter 3 will outline the research questions to be answered by this study. Chapter 4 will outline the research methodology applied. Chapter 5 will showcase the statistical results of the subjects under investigation. Chapter 6 will be a discussion of the results and Chapter 7 will be a conclusion of the study, making note of the key finding, shortfalls, and will provide recommendations for future studies on the topic.

## **Chapter 2: Literature Review**

### **2.1 Introduction**

This study sets out to determine the influence that organisation size and organisation performance has, on the components of CEO remuneration. The study will focus on the remuneration of financial services CEOs, who manage organisations listed on the JSE. A review of the literature and the findings of previous studies on this topic will be presented in this chapter.

The literature review will set out to define the role of the CEO and highlight the key responsibilities that the CEO is required to perform, in their role as the CEO, for the organisation that they represent. This will provide an indication of the complexity of their role, as highlighted by Acero and Alcalde (2019). Thereafter, Adams (2019) view of the evolution of remuneration, in relation to the remuneration models in the present day and the different components that make up CEO remuneration will be reviewed.

The literature on the theories that are said to drive or influence CEO remuneration, how it is set, and the influence that these theories have on the components of CEO remuneration is covered. Particular focus is given to agency theory, optimal contracting and the theory of managerial power, to highlight what these theories say and how they influence the different components of CEO remuneration-setting.

Lastly, a review of previous studies on organisation size and organisation performance, on CEO remuneration, will be conducted. The approach, findings and conclusions of these studies will be discussed and will set a baseline for comparison to the results that will be found in this study. In chapter 6, parallels will be drawn between literature finding and the findings of this study to validate the outcomes and determine if there is a common thread with regards to the determinants of CEO remuneration.



## 2.2 Role of the CEO

The CEO is the highest ranked executive in an organisational structure. Reporting directly to the board, the CEO acts in a management capacity and has the highest level of decision-making power, within the organisation. As the highest level of management, the CEO is responsible for efficiently and effectively attaining organisational goals through good planning, organising, staffing, directing and controlling all resources within the organisation (Daft, 2011). It can therefore be deduced that the CEO has a huge responsibility to ensure that the organisation is well run, and to ensure that shareholder returns are maximized, which is one of the primary functions of running a business. Looking from the outside in, it is difficult to understand the complexity and vastness of a CEO's role or to understand exactly what a CEO handles on a day-to-day basis.

Therefore, in addition to the high-level management actions listed above, Mascarenhas (2009) has found eight challenges that CEOs must solve within their organisation, in their capacity as the CEO:

1. Developing new growth avenues by identifying new strategies or new markets to step change the growth trajectory of the organisation.
2. Raising productivity levels to improve profit margins.
3. Competing for talent by ensuring that first class human resource practices prevail.
4. Managing diverse risks through the implementation of robust risk management processes.
5. Tightening corporate governance to ensure that there is transparency and accountability in all processes.
6. Incorporating sustainability by taking account of the triple bottom line which includes considerations for people and the planet, not just profits.
7. Building platforms that encourage innovation to drive new customer differentiation that add value to the customer that translates into profit.
8. Build out new infrastructure by improving infrastructure projects that enable the business to enhance their operations and reach.

Although the level of complexity may vary from one organisation to another, the multifaceted role that the CEO must perform has a higher level of complexity and accountability, relative to other roles within an organisation. Lange, Boivie, and Westphal

(2015) state that there is a qualitative difference in the requirements of a CEO when compared to staff at all other levels of the organisation. The CEO is seen to have a causal relationship with the organisations performance and how the world perceives it, and this is not the case for all employees at every other level. Therefore, the CEO is the headline for the organisation and any action taken by the CEO, positive or negative, can have a significant impact on the performance of an organisation and the way in which investors see the organisation, from an investment point of view. Based on the above, the CEO takes on a management and leadership role within the organisation and being effective in their role requires them to ensure that all their efforts result in the creation of value for their shareholders. This reinforces the link to performance as one of the key outcomes for a CEO and thereby a notion that remuneration and performance should be closely linked.

### **2.3 CEO Remuneration**

Adams (2019) states that the concept of pay has evolved over time.

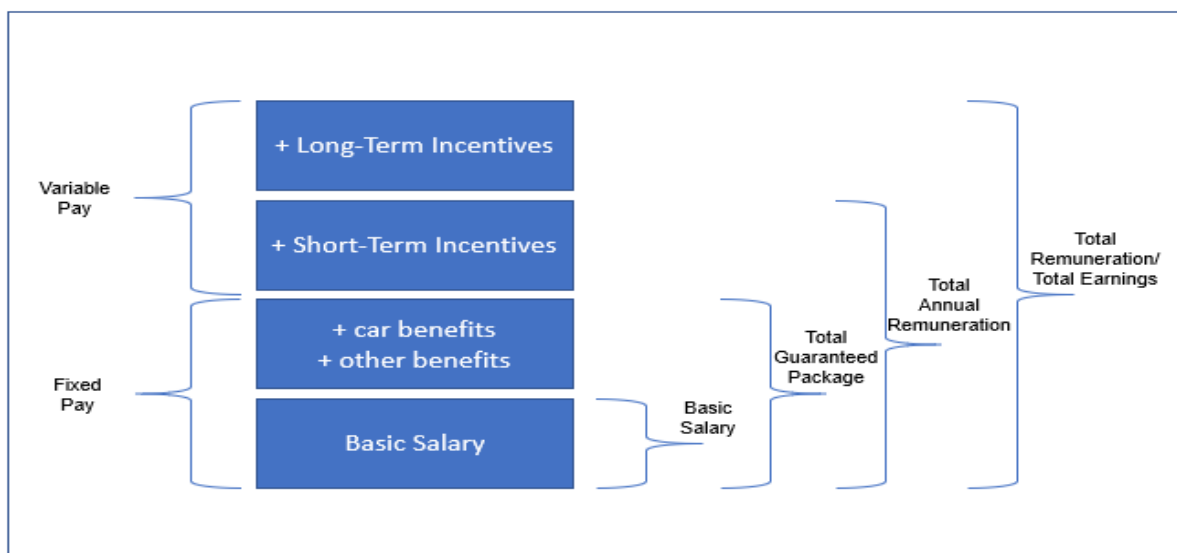
- i. Neoclassical economic theory defines a wage as the price for labour which is determined by demand and supply, where there is no mechanism for control. Behavioural adjustments, with wages as the coordinating factor, allowed both parties to act in a way that increases the value they can derive, even though no relational contract existed for this exchange.
- ii. Salaries historically referred to a periodic payment between an employer and employee, for the services they rendered. The payment was unconditional and periodic, based on the underlying contractual agreement between the parties pursuant to the contract.
- iii. Remuneration was typically paid to people who held positions with a higher status. The components included monetary payments, non-monetary benefits as well as supplementary payments that were made based on specific tasks being achieved. Remuneration is paid based on an ongoing contract where both parties impose an ongoing obligation on each other.

Although remuneration is simplified in the definition by Adams (2019), the essence of this pay structure still remains. However, CEO remuneration in the current business environment, has many more elements and is far more complex in terms of structure. Phillips (2018) unpacks the various elements and classifies them according to how they

are practically applied in the current business environment. Remuneration is divided into two distinct categories:

- i. Fixed pay which refers to the elements of remuneration that are guaranteed and has two sub-categories.
  - a) Basic salary which refers to the cash component of remuneration paid by the employer.
  - b) Benefits which refers to the employer contributions that are paid to or on behalf of the employee such as car allowances, pension fund and medical aid contributions.
- ii. Variable pay is typically linked to one or more performance-based outcomes and has two sub-categories.
  - a. Short-term incentives which are typically paid in the form of a cash bonus related to the performance achieved in respect of the previous/current financial year (12 months).
  - b. Long-term incentives which typically takes a long-term view and accounts for a period longer than one financial year (12 months). The make-up of these rewards is either in cash (deferred bonuses) or equity, where equity refers to share options.

Total annual remuneration (Figure 1) is made up of fixed remuneration as well as short-term incentives and this will form the basis of this study on CEO remuneration.



**Figure 2.1: The total remuneration concept (Phillips, 2018)**

## 2.4 Agency Theory

Jensen and Meckling (1976) state that when decision making power is given by a principal to an agent, an agency relationship is created. In these circumstances, where an agent is a utility maximiser, it is reasonable to believe that the agent will favour their own interests above the interests of the principal. S Afriliana, Subroto, Subekti and Rahman (2018) concurs and adds that as part of human nature, given that agents derive personal gains from the work that they do, they may manipulate that which is in their control to their advantage. Therefore, agency theory seeks to understand the problems that arise between agents and principals of an organisation, where the agent refers to the CEO leading the organisation and the principal refers to the shareholders of the organisation.

Linder and Foss (2015) state that the conflict, in this context, is a conflict of interest that arises as a result of information asymmetry, where the agent holds considerably higher levels of information than the principal and furthermore, is in control of the information made available to the principal. As a consequence, CEOs have the ability to define the goals of the organisation in a way that is beneficial to them, even though it may destroy value for the organisation (Oliveira, Almeida, & Lucena, 2017). These events can be exacerbated when there are loose controls by the principal over the agent and increases the welfare loss that arises from the agent-principal problem (S Afriliana, Subroto, Subekti, & Rahman, 2018).

However, there are ways to reduce the welfare loss that arises from irrational agent behaviour through the implementation of principles that incentivise or monitor arrangements that endeavour to align the actions of the agent with that required by the principal (Linder & Foss, 2015; Jensen & Meckling, 1976).

## **2.5 Optimal Contracting**

When discussing the agency problem, Safriliana, Subroto, Subekti and Rahman (2018) state that agents derive personal gains from the work that they do which may result in them making decisions within their control to their benefit, while making the organisations shareholders worse off. To control for this, Jensen and Meckling (1976) suggest that principals can use incentives to drive the right behaviour of the agent. In some instances, mere monitoring can be used to ensure that the agents' behaviour is in line and in the best interest of the principal, but at the other end of the spectrum, the principal can use bonding costs to influence the behaviour of the agent. Whichever route is chosen, this typically comes at a cost to the organisation and these costs do not guarantee that the agent will not diverge from the decisions that would ordinarily maximise the returns to shareholders. Jensen and Meckling (1976) refer to these costs as a residual loss and this loss is ultimately borne by the principal.

In optimal contracting, the main goal is to design a contract that incentivises agents, by aligning the interests of the agent and the principal and rewarding behaviour which does not divert from the expectations of the shareholder (Abdou, Ntim, Lindop, Thomas, & Opong, 2019). Typically, a component of the agents' remuneration is tied to the behaviours that maximise the utility of the shareholders and thereby exerts some influence on the agent to act in the best interest of the principal. Abdou, Ntim, Lindop, Thomas, and Opong (2019) go further to state that this method is not watertight as in some instances, a second level of agency conflict may arise. This is driven by the influence that the CEO has over the board of directors and uses this influence in a way that enables the CEO to influence the approval of sub-optimal contracts. This action is taken in return for some benefit to be received from the CEO, at a later stage, which may come in the form of director incentives. This gives rise to the theory that states that managerial power has an influence over how CEO remuneration is structured and the level of said remuneration.

The next section will look deeper into this influence relationship and determine the degree of influence and what gives rise to this influence over remuneration.

## **2.6 Managerial Power**

The managerial power approach sees CEOs as rent seekers who have a significant degree of influence over the board, and therefore, their remuneration. Bussin and Ncube (2017) concur and Acero and Alcalde (2019) state that CEOs are able to exploit their advantage, to extract higher remuneration from the organisation. It is evident that where managerial power exists, the board's ability to objectively set remuneration is diminished and hence the board does not operate at arm's length in these transactions (Bebchukt, Walker, & Friedtt, 2002). This process ultimately impacts shareholder value, negatively, which is counterintuitive to the responsibility of a CEO, which is to maximise shareholder value.

Akram, Abrar ul Haq and Umrani (2019) found that the power that CEOs have are native to their role. Their access to information and influence over policies, equip CEOs with a direct influence over their remuneration and the only way to control this is to reduce their power by pegging remuneration to the outcomes that their actions have on the organisation (Akram, Abrar ul Haq, & Umrani, 2019). Newman, Banning, Johnson and Newman (2019) state that another way of negating this outcome, and to control for managerial power, is to implement a say-on-pay approach that allows shareholders to have a say on CEO remuneration, thereby neutralising the power that CEOs have over the board. In their study, conducted on large public organisations, Newman, Banning, Johnson and Newman (2019) found that pay ratios reduced once the say-on-pay process was implemented, and they observed a significant reduction in pay for organisations that had the highest pay ratios prior to its implementation. There is evidence to support the fact that CEOs do have a strong influence over their pay and only when objectivity is applied, can remuneration setting be seen as an arm's length transaction.

Based on the above, it is clear that CEOs have the potential to divert from their key mandate, which is to maximise shareholder value, by manipulating the organisational drivers to their own benefit. Therefore, it is important for pay setting principles to drive optimal behaviour of the CEO and to ensure that there is alignment between what the

principal requires from the CEO and the the actions of the CEO. As optimal contracting theory proposes, CEO contracts should be aligned to organisational performance, where financial and non-financial benefits, which accrue to the CEO, are based on the performance of the organisation as a whole. To do this, the board need to be aware of the metrics that drive performance and ensure that these metrics are aligned with the remuneration structure of the CEO. Driving this behaviour will benefit the principal and the agent in a way that prevents the agent from diverting from the contract that is held between both parties. The next two sections will dichotomise the influence that organisation size and organisation performance have on the components of CEO remuneration, based on previous studies on the topic, and give an indication of how CEO remuneration has been structured to influence CEO behaviour.

## **2.7 Organisation Size**

### **2.7.1 Proxies used to Measure Organisation Size**

Based on the literature, there are three proxies, or a combination thereof, that are typically used to measure organisation size (Acero & Alcalde, 2019; Ghazali & Taib, 2015; Merhebi, Pattenden, Swan, & Xianming, 2006; Sonenshine, Larson, & Cauvel, 2016; Zhou, 2000). Some measures are pure financial measures as published in the audited statement of comprehensive income and the statement of financial position of each organisation. The three key measures identified and deemed common proxies for organisation size are:

- a. Revenue which relates to the total value of income that is earned by the organisation. This value is quoted before any costs are deducted and is therefore a true reflection of the amount of money generated from the operating activities of the organisation.
- b. Assets which refers to the investment that the organisation has made in fixed assets as well as assets that are derived from the operating activities of the organisation. Current assets and non-current assets are included in the value. Therefore, it is a measure that captures the true value of the assets that the organisation has under management.

- c. Number of employees which simply refers to the number of employees that an organisation had, on their payroll, for the financial year. This variable can be used as a proxy for organisation size as larger staff complements signify more complexity and hierarchical layers as a result of larger numbers of people under management.

### **2.7.2 Views on Organisation Size and Remuneration**

Various authors (Acero & Alcalde, 2019; Ghazali & Taib, 2015; Merhebi, Pattenden, Swan, & Xianming, 2006; Sonenshine, Larson, & Cauvel, 2016; Zhou, 2000) have all debated the influence that the size of an organisation has on the remuneration of CEOs. Theoretically, larger organisations are deemed to be more complex, requiring a greater level of skill and effort from their CEO. Finkelstein and Hambrick (1989) concur and state that as the size of an organisation increases, they are subject to higher marginal demands, due to increased complexity of managing the business, and therefore need highly skilled and experienced CEOs to run the business. In addition, they identified that larger organisations tend to have more hierarchical layers, which ultimately results in more people under management. Zhou (2000) adds that the marginal product of the actions of the CEO are magnified by the span of their control, invariably resulting in a higher demand on the CEO, who in turn demands a premium wage for their efforts. From the above, we can conclude that the size of an organisation can be used as a proxy for complexity and effort (Ghazali & Taib, 2015).

In a study conducted by Merhebi, Pattenden, Swan and Xianming (2006), and Bussin and Ncube (2017), they found that organisation size is a key consideration in determining CEO remuneration. Given that a CEO's remuneration is set at the beginning of their tenure, their performance in the organisation is indeterminable at that point, and one of the firm specific measures that CEO remuneration can be pegged against, is the size of the organisation. In this case, size acts as a proxy for the complexity that the CEO can expect, as they take on the role of CEO. The size of the organisation is therefore deemed to have a positive and significant relationship with CEO fixed remuneration, at the hiring phase, but this variable may lose its explanatory power over time according to Sonenshine, Larson, and Cauvel (2016), who found that organisation size is not a factor that influences the fixed remuneration during tenure as even when actions taken by the CEO results in a reduction



of the organisation size (through asset divestitures) this does not have a negative influence, on the fixed component of a CEOs remuneration, in future periods.

As the debate continues, there is still no consensus on whether organisation size is the key determinant of CEO remuneration or if size is the right determinant of CEO remuneration and some researchers have reservations with regards to organisation size-driven remuneration policies. Ghazali and Taib (2015) is one of them who introduce the concept of moral hazard into the equation. They believe that where organisation size is used as the key determinant of CEO remuneration, this could have negative consequences, over the long-term, as organisations may continue to pay high remuneration to underperforming CEOs, in the absence of a performance link.

### **2.7.3 Findings: Organisation Size on CEO Remuneration**

Based on the empirical evidence, from previous research above, the view is that organisation size has an influence on CEO remuneration. These findings have been arrived at by using proxies for organisation size. And the findings, to a large degree, converge toward a view that confirms a positive relationship between the independent variables used to measure organisation size and CEO remuneration.

Zhou (2000), used revenue, assets and market capitalisation as three proxies for organisation size. Zhou (2000) concluded that where revenue is used as a proxy for organisation size, a positive and statistically significant relationship exists, and it was observed that a 10% percent increase in revenue led to a 2.5% increase in the cash remuneration paid to a CEO. In addition, the study concluded that when assets were used as a proxy for organisation size, a negative relationship was exhibited, but the significance levels of this relationship were low. Merhebi, Pattenden, Swan, and Xianming (2006) who used the same proxies for organisation size as Zhou (2000) concurred that there is a strong, positive relationship between organisation size and CEO remuneration, but their study concluded that for every 1% increase in revenue of the organisation, there is a resultant 2.74% increase in CEO remuneration.

Ghazali and Taib (2015), Hussain, Obaid, and Khan (2014), and Sonenshine, Larson, and Cauvel (2016), using revenue as a proxy for organisation size, have concluded that even when using revenue as the only measure of organisation size, there is a positive and

significant relationship between organisation size and CEO remuneration. In addition, Ghazali and Taib (2015) go further to state that it is the quantum of the CEO remuneration that is most explained by the size of the organisation and in their study, using assets as a proxy for organisation size, Acero and Alcalde (2019) found that organisation size can be used to explain the difference in CEO remuneration, across organisations.

Based on the views above, by and large, there seems to be consensus that there is a positive relationship between organisation size and CEO remuneration, even in instances where different variables have been used as a proxy for organisation size. That being said, there are some mixed views on whether organisation size has an influence on overall CEO remuneration or whether specific proxies for organisation size have an influence over a specific component of CEO remuneration. Sur, Magnan, and Cordeiro (2015) concur with the view that there is a positive correlation, in principle, but they have found that this influence is limited to the cash component of remuneration only and that organisation size has no significant influence on variable remuneration of the CEO.

Although organisation size has been seen to have a positive and significant relationship with CEO remuneration, Sonenshine, Larson, and Cauvel (2016) state that there may be instances where management actions are taken to reduce the organisations size and a reward for these management actions are captured in the variable component of CEO remuneration. However, this can only be adequately measured where the components of CEO remuneration are broken down into a fixed and variable remuneration view. In addition, this highlights that when testing variables on the components of CEO remuneration, it may be necessary to included more than one proxy for organisation size to ensure accuracy of the model.

There are varying views with respect to how organisation size influences CEO remuneration, but it is clear that a positive relationship has been established. The key challenge that has been highlighted in the literature is that conclusions may be skewed if only one factor is used as a proxy for measuring organisation size. In addition, Sonenshine, Larson, and Cauvel (2016) have identified that, in some instances, organisational variables may have an influence on a specific element of CEO remuneration and where the fixed and variable components of CEO remuneration are not separated and the variables are not tested against the components of CEO remuneration,

inaccurate causal relationships might be found and incorrect conclusions might be drawn due to the limitations of the approach.

## **2.8 Organisation Performance**

### **2.8.1 Proxies used to Measure Organisation Performance**

Based on the literature, there are five proxies, or a combination thereof, that are typically used to measure organisation performance (Acero & Alcalde, 2019; Ghazali & Taib, 2015; Merhebi, Pattenden, Swan, & Xianming, 2006; Otomasa, Shiiba, & Shuto, 2020; Sonenshine, Larson, & Cauvel, 2016; Zhou, 2000). Some measures are pure financial measures as reported in the audited statement of comprehensive income or the statement of financial position of the organisation and others are financial ratios based on the financial measures. The five key measures identified and deemed common proxies for organisation performance is:

- a. Profit (Headline Earnings) which is the net gain that the organisation derives from its operating activities, after accounting for the costs associated with running these operations.
- b. Return on Equity (ROE), which is used to measure the financial strength of an organisation. This ratio is calculated by dividing the net income of the organisation with the equity invested in the organisation.
- c. Earnings per share (EPS) which is a measure of the amount of money the organisation generates for each share of stock that the company holds. This ratio is calculated by dividing net profit over common shares.
- d. Turnover which relates to the total value of revenue that is earned by the organisation. This value is reported before any costs are deducted and therefore is a true reflection of the amount of money generated from the operating activities of the organisation.

- e. Return on Assets (ROA), an indicator of profitability of a business that measures the efficiency of an organisation's management in their use of assets to generate revenue for the organisation.

## **2.8.2 Views on Organisation Performance and Remuneration**

CEOs typically earn high returns for the effort they give, relative to those employees who rank below them in the organisation. However, of late, many organisations have started to adjust the way in which they reward their CEOs and a significant portion of their remuneration is tied to performance measures, making this portion of pay at-risk (Martin & Magnan, 2019).

Earlier studies on the topic have shown a negative relationship between CEO remuneration and organisation performance. In addition, van Essen, Otten and Carberry (2015) found that the remuneration-performance link diminishes as CEO tenure increases. This occurs as the CEOs influence over remuneration structure and level of remuneration strengthens over time, which takes us back to the theory of managerial control.

Sonenshine, Larson and Cauvel (2016) found that the determinants of CEO remuneration have been shifted toward a pay for performance model, since the financial crisis in 2008. Where a pay for performance model exists, Otomasa, Shiiba and Shuto (2020) state that management forecasts form the basis of CEO compensation. Martin and Magnan (2019) concur with the above and go further to state that it is common practice for organisations to attribute the performance of an organisation to the prowess of their CEO. Therefore, their pay is likely aligned in this manner, based on these principles being employed to remuneration-setting. Where CEOs are able to influence the remuneration equation, it has been observed to be in the favour of measures that are not related to performance. However, at an aggregate level, CEO remuneration tends to be higher when driven by a pay for performance model (Dale-Olsen, 2012).

There are some schools of thought that suggest a stronger correlation between short-term incentives (STIs) and organisation performance. Sur, Magnan and Cordeiro (2015) go further and state that equity-based remuneration variables are driven by time-level effects such as organisation performance and that the non-cash components of CEO remuneration are more strongly tied to performance over the long-term. Based on agency

theory principles, this would make sense where the board use equity-based remuneration to align the agent and principals' goals, by ensuring that the CEO has a vested interest in the business, over a period longer than one financial year.

Although there seems to be consensus that CEO pay should be linked to performance, there are no absolute agreements on the measures that are most appropriate. For example, the use of increased share price is not a true indicator of good organisation performance (Mascarenhas, 2009). Therefore, tying CEO remuneration to an inaccurate metric of success will not result in the best outcome for the organisation. Davis, Batchelor, and Kreiser (2018) highlight that the scale of the organisation should also be taken into consideration when setting up the metrics for CEO remuneration, because small and medium enterprises (SME's) may not be able to apply the same remuneration metrics based on performance. And in this instance, SME's should substitute these metrics with metrics that tie in to change oriented behaviours that drive the organisation forward.

Based on the literature findings presented above, it is evident that there are mixed opinions about the influence that organisation performance has on determining CEO remuneration. However, many authors have highlighted that the influence is component specific and therefore highlights the need to break CEO remuneration down into its components, in order to get an accurate view on the influence that organisation performance has on the components of CEO remuneration. From the finding above, it seems that organisation performance has a stronger influence on the variable component of a CEOs remuneration.

### **2.8.3 Findings: Organisation Performance on CEO remuneration**

Based on the empirical evidence showcased above, the view is that organisation performance has an influence on CEO remuneration. These findings have been arrived at by using proxies for organisation performance and the findings, to a large degree, converge toward a view that confirms a positive relationship between the independent variables used to measure organisation performance and CEO remuneration.

Merhebi, Pattenden, Swan, and Xianming (2006), and Zhou (2000), using ROA and ROE as proxies for organisation performance, have found there to be a positive and statistically significant relationship between organisation performance and CEO remuneration. In their

results, Merhebi, Pattenden, Swan, and Xianming (2006) have concluded that for every 10% increase in organisation performance, there is a resultant 1.16% increase in CEO remuneration. Similarly, Dale-Olsen (2012) observed the same directional change, but the results showed that there is a resultant 0.55% increase in CEO remuneration, for every 1% increase in performance, when profit was used as a proxy for performance. Based on the above, it is evident that there is a measurable change in remuneration based on performance. However, it has been noted that the type of contract that the CEO is on has an influence on their total remuneration, but the influence of performance is not always positive for all CEO remuneration contract-types. Where a CEO is on a performance-remuneration contract, it has been observed that they earn approximately 30% more than their fixed remuneration counterparts and only where a performance contract exists, does organisation performance have a positive and statistically significant influence on CEO remuneration (Dale-Olsen, 2012).

Following from the above, Sonenshine, Larson, and Cauvel (2016), using EPS as their proxy for organisation performance, have concluded that organisation performance is a strong determinant of CEO remuneration. This follows the expectations that are derived from agency theory, that endeavours to align the shareholders' interests with CEO actions. Otomasa, Shiiba, and Shuto (2020) concurs with the agency theory principle and states that organisation performance has shown a strong, positive correlation with the cash component of CEO remuneration, where earnings were used as a proxy for organisation performance. They go further to state that this occurrence only happens in the positive scenario and based on their results, there doesn't seem to be a penalty on earnings, even when organisation performance is less desirable than that which was expected.

In contrast to the findings above, various authors have found converse results when they measured the effect that organisation performance has on CEO remuneration. Using profit and ROA as their proxies for organisation performance, Ghazali and Taib (2015) observed that there is no significant relationship between organisation performance and CEO remuneration. Similarly, when Acero and Alcalde (2019), and Hussain, Obaid, and Khan, (2014) used ROE as their proxy for organisation performance, they reached similar results and concluded that there is no significant relationship between organisation performance and CEO remuneration.

From the above, we can conclude that there is no consensus on the influence that organisation performance has on CEO remuneration. However, there is evidence to show that the cash component of CEO remuneration may be influenced by the performance of the organisation and to test this, it will be important to split CEO remuneration into its components, in order to test these hypotheses accurately. In addition, where ROE has been used as the sole proxy for organisation performance, no significant relationship has been identified, compared to other studies who have used more than one proxy for organisation performance and have shown a positive and significant relationship when these additional variables were added.

## **2.9 Summary of Literature Review**

A review of the literature on this topic has given context to the role of a CEO and the multitude of responsibilities that come with the role. These views speak to the complexity of the role that is often cited as the reason for high remuneration being paid to CEOs. The literature also provides a view on the evolution of remuneration and as the field of remuneration has evolved, we have seen the emergence of remuneration components within the CEO remuneration structure with a fixed component and variable component becoming more prominent over time.

Based on theories that endorse the need for more complex CEO remuneration structures, it is believed that an optimal contracting approach can be used to reduce the agency problem, by linking the actions of the CEO to financial and non-financial benefits, to ensure that the agent sees the benefit of acting in the best interest of the principal. However, optimal contracting has proved to be ineffective where the agent has a significant influence over the board and where they exert this influence to control sub-optimal contracting for their own benefit.

Where optimal contracting is to be employed, the literature has shown two broad categories that typically have an influence over the components of CEO remuneration. Organisation size and organisation performance have proved to be key determinants of fixed and variable remuneration, where the latter has been proved to have a significant influence, in most research studies, over the variable component of CEO remuneration. This is in line with optimal contracting theory as organisation performance, driven by the

actions of the CEO, benefit the agent and the principal more where a pay-performance model is applied.

The next chapter will set out the hypotheses that will be tested in this study.



## **Chapter 3: Hypotheses**

### **3.1 Introduction to the Hypotheses**

The hypotheses for this research paper have been derived from literature and have been modified, based on the findings and shortcomings of previous studies. To date, inconclusive results have been derived from previous research but there is a common thread in these studies that test organisation size and organisation performance on CEO remuneration. For this study, a deeper analysis will be done by testing these variables on the components of CEO remuneration, to determine whether organisation size and organisation performance are significant determinants of one or both components of CEO remuneration, and to what degree.

### **3.2 Detailed Hypotheses**

#### **3.2.1 Hypothesis One**

- H<sub>0</sub> Organisation size is not a significant determinant of CEO fixed remuneration
- H<sub>1</sub> Organisation size is a significant determinant of CEO fixed remuneration
  - H<sub>1a</sub> Assets is a significant determinant of CEO fixed remuneration
  - H<sub>1b</sub> Revenue is a significant determinant of CEO fixed remuneration
  - H<sub>1c</sub> Number of employees is a significant determinant of CEO fixed remuneration

#### **3.2.2 Hypothesis Two**

- H<sub>0</sub> Organisation size is not a significant determinant of CEO variable remuneration
- H<sub>2</sub> Organisation size is a significant determinant of CEO variable remuneration
  - H<sub>2a</sub> Assets is a significant determinant of CEO variable remuneration
  - H<sub>2b</sub> Revenue is a significant determinant of CEO variable remuneration
  - H<sub>2c</sub> Number of employees is a significant determinant of CEO variable remuneration

### **3.2.3 Hypothesis Three**

H<sub>0</sub> Organisation size is not a significant determinant of CEO total remuneration

H<sub>3</sub> Organisation size is a significant determinant of CEO total remuneration

H<sub>3a</sub> Assets is a significant determinant of CEO total remuneration

H<sub>3b</sub> Revenue is a significant determinant of CEO total remuneration

H<sub>3c</sub> Number of employees is a significant determinant of CEO total remuneration

### **3.2.4 Hypothesis Four**

H<sub>0</sub> Organisation performance is not a significant determinant of CEO fixed remuneration

H<sub>4</sub> Organisation performance is a significant determinant of CEO fixed remuneration

H<sub>4a</sub> Profit is a significant determinant of CEO fixed remuneration

H<sub>4b</sub> ROE is a significant determinant of CEO fixed remuneration

H<sub>4c</sub> EPS is a significant determinant of CEO fixed remuneration

### **3.2.5 Hypothesis Five**

H<sub>0</sub> Organisation performance is not a significant determinant of CEO variable remuneration

H<sub>5</sub> Organisation performance is a significant determinant of CEO variable remuneration

H<sub>5a</sub> Profit is a significant determinant of CEO variable remuneration

H<sub>5b</sub> ROE is a significant determinant of CEO variable remuneration

H<sub>5c</sub> EPS is a significant determinant of CEO variable remuneration

### **3.2.6 Hypothesis Six**

H<sub>0</sub> Organisation performance is not a significant determinant of CEO total remuneration

H<sub>6</sub> Organisation performance is a significant determinant of CEO total remuneration

H<sub>6a</sub> Profit is a significant determinant of CEO total remuneration

H<sub>6b</sub> ROE is a significant determinant of CEO total remuneration

H<sub>6c</sub> EPS is a significant determinant of CEO total remuneration

### **3.3 Summary of Hypotheses**

Each hypothesis will allow for validation of the relationship that the independent variable has on the component of CEO remuneration (dependent variable), that it is being tested against. Hypothesis one will test whether a significant relationship exists between organisation size and fixed remuneration. Hypothesis two will test whether a significant relationship exists between organisation size and variable remuneration. Hypothesis three will test whether a significant relationship exists between organisation size and total remuneration. Hypothesis four will test whether a significant relationship exists between organisation performance and fixed remuneration. Hypothesis five will test whether a significant relationship exists between organisation performance and variable remuneration. Hypothesis six will test whether a significant relationship exists between organisation performance and total remuneration.

If an opposing relationship is identified, for any of the six null hypotheses, the null hypothesis will be rejected in favour of the alternate hypothesis, confirming the relationship direction and significance. The results of the hypothesis testing will provide an indication of the influence that organisation size and organisation performance have, on the components of CEO remuneration, in the context of JSE listed financial services organisation.

## **Chapter 4: Research Methodology**

### **4.1 Research Design**

This research paper takes the form of explanatory research as it endeavours to explain the relationship between organisation size and organisation performance on CEO remuneration (Saunders & Lewis, 2018).

A deductive reasoning approach was used by testing the theoretical proposition, through a research strategy, designed to collect data for this purpose (Saunders & Lewis, 2018). This approach was taken as deductive reasoning is a valid reasoning approach where it is impossible to accept the premise of the argument whilst rejecting the conclusion (Zalaghi & Khazaei, 2015). In this research paper, data was collected and analysed using a logical structure to determine how the independent variables influence the dependent variables, and to what extent. As such, research hypotheses were defined and tested, based on the premise outlined in the literature review. New theories have not been developed as an outcome of this research. Rather, existing theories were tested.

The research employed a mono-method methodology and the study was longitudinal in nature. Data was collected over a five-year period (2015-2019) using a single data collection technique. This data collection technique lends itself to quantitative techniques on which statistical analysis was performed and results examined, to determine the explanatory power of the independent variables on the dependant variable (Saunders & Lewis, 2018).

### **4.2 Universe**

The universe of focus for this research paper was confined to CEOs of financial services organisations, listed on the JSE. Given the requirements of the JSE, all organisations are mandated to publish their CEOs remuneration in their annual financial reports. This made data collection more standardised and accurate as financial statements for all JSE listed companies are subject to audit requirement.

Secondary data was collected for the top 15 financial services organisations, listed on the JSE, for a five-year period (2015-2019). The collection of this quantifiable data lent itself to statistical analysis which is in line with the positivistic approach of research (Saunders & Lewis, 2018). The hypotheses were then tested to determine the degree of influence that the independent variables had on the dependent variable, CEO remuneration.

### **4.3 Unit of Analysis**

The first unit of analysis was CEO remuneration, broken down into fixed remuneration and short-term incentives (bonuses). For this study, only fixed remuneration and short-term incentives were included. Core, Holthausen and Larcker (1999) stated that LTIs are pegged to performance over a future period and although provisioned for, are not guaranteed. Therefore, including LTIs can be problematic in a study of this nature and may distort the results (Core, Halthausen, & Larcker, 1999). For this reason, LTIs have been excluded from the study.

The second unit of analysis was organisation size. The following variables were chosen as proxies: assets, revenue and number of employees. This information was sourced from I-NET BFA, one of the leading sources of financial information in South Africa and validated against the annual financial statements for each organisation. Given that I-NET BFA is a trusted and widely used source of information, the information was deemed valid and reliable.

The third unit of analysis was organisation performance. The following variables were chosen as proxies: profit, return on equity (ROE) and earnings per share (EPS). This information was sourced from I-NET BFA, one of the leading sources of financial information in South Africa and validated against the annual financial statements for each organisation. Given that I-NET BFA is a trusted and widely used source of information, the information was deemed valid and reliable.

#### 4.4 Population and Sampling

Given the research focus for this study, the population was limited to CEOs of financial services organisations, listed on the JSE. Therefore, the population is localised to South Africa and findings are thus comparable within the context of South African financial service organisations.

The research is focused on a specific population being CEOs in the financial services sector. Therefore, a homogenous purposive sampling method was employed. The sample was limited to the top 15 financial services organisations on the JSE, based on their market capitalisation. The CEO of the selected company become the subject of this study and the period of observation spanned 5 years. Therefore, the dataset consisted of ~75 observations per variable. To qualify for inclusion, organisations had to meet the following criteria:

- i. The organisation must have been in operation for the entire period under observation (2015-2019)
- ii. The organisation must have been listed on the JSE for the entire period of the study (2015-2019)
- iii. The data must be available on the data sources specified for this study

Table 4.1 below shows the list of selected organisations that formed part of the research sample.

**Table 4.1: Sample**

1. ABSA	7. Firstrand	13. Sanlam
2. Alexander Forbes	8. Nedbank	14. Santam
3. Capitec	9. Old Mutual	15. Standard Bank
4. Clientelle	10. Peregrine	
5. Coronation	11. PSG	
6. Discovery	12. Remgro	

#### **4.5 Data Collection and Analysis**

Secondary data was collected for all subjects of the study. Two sources of data were used to collect the relevant fields of data that was required for statistical analysis to be conducted. The data was categorised into two distinct categories namely; A) Organisation size, B) Organisation performance.

All information relating to the organisation's size and performance was extracted from the I-NET BFA database which is South Africa's leading provider of financial data and was validated against the annual financial statements of the organisation. The data was aggregated at a per-subject level after which, this data formed the basis for data analysis.

The dependent variable (CEO remuneration) was broken up into fixed remuneration and variable remuneration, where the former refers to guaranteed pay and the latter refers to bonus payments, made to the CEO, in the financial year under review. All other independent variables were presented as is. The data was prepared and run through SPSS statistical software. Descriptive statistics was run to determine the mean and standard deviation for the variables.

Due to the small sample size, a t-test was not valid, therefore the data was tested for normality by means of a Cronbach's alpha test. In addition, the skewness and kurtosis of the data set was also tested. The outcomes of these tests signified whether parametric (normally distributed) or non-parametric (not normally distributed) testing should be performed to test for differences (Saunders & Lewis, 2018).

To test the strength of the relationship between the dependent variable (CEO remuneration) and the proxy variables for the two categories being tested (organisation size and organisation performance), a Pearson correlation test was used. Thereafter, inferential statistics were drawn using regression analysis to test the hypotheses and reach conclusions from the results.

#### **4.6 Validity and Reliability**

I-Net BFA aggregates data in line with what is published in the company financial statements. Given that financial statements are audited, I can attest to the accuracy of the data. Furthermore, the data on I-Net BFA was validated against the data found on the annual financial statements of the organisation to ensure accuracy and reliability.

In addition, a Cronbach's alpha test was used to test for reliability as it is a common measure used for these purposes and confirms the internal consistency of the data (Taber, 2018). In addition, the skewness and kurtosis of the data was also measured to ensure normality of the data, before inferential analysis was performed.

#### **4.7 Research Limitations**

This study is limited to financial services organisations in South Africa, hence the results may not be applicable or comparable with companies in different industries or companies outside of South Africa. The top 15 organisations were selected based on their market capitalisation, indicating that they are large entities. The conclusions drawn from this research paper may not lend itself to smaller financial services organisations. Further research is required to determine whether these findings can be applied to financial services companies that are categorised as small or medium in size.

The analysis was performed in a manner that enabled the validation of the research questions stated earlier. Chapter 5 will outline the descriptive statistics drawn for the data and the results that were found from the regression analysis performed.



## **Chapter 5: Results**

### **5.1 Descriptive Statistics**

#### **5.1.1 Description of the Sample**

For the purposes of this analysis, data from 15 organisations was collected and analysed over a five-year period (2015-2019). In total, ~75 observations were captured per variable and the organisations under observation were kept constant over the entire period under observation.

#### **5.1.2 Measures of Organisation Size**

Organisation size was measured by means of proxies for organisation size. For this research, three proxies were used as measures of organisation size namely assets, revenue and number of employees, as each are indicative of the size of the organisation.

Each variable was tested for internal consistency/reliability and normality, to ensure that inferential statistics could be drawn from the dataset. The Cronbach's alpha test was used to measure the internal consistency and reliability of the data. In addition, the skewness and kurtosis of the variables were tested to ensure that the data was normally distributed.

Table 5.1 below indicates the Cronbach's alpha values for the variables used to measure organisation size. Taber (2018) states that values closer to one indicate a high degree of internal consistency and reliability. All three variables achieved a high score, indicating that there is a high degree of internal consistency, for the proxy variables, used to measure organisation size.

**Table 5.1 Internal Consistency/Reliability – Organisation Size Variables**

	Assets	Revenue	#Employees
Cronbach's alpha	1,00	0,99	1,00

Table 5.2 below indicates the Skewness and Kurtosis of the variables used to measure organisation size. All three variables had a skewness value that fall within Taber's (2018) recommended range for skewness of less than 2 and kurtosis less than 7 and within the recommended range by Kline (2015), where skewness less than 3 and kurtosis less than 10 is deemed good. This indicates that the assumptions of normality have been met (Taber 2018; Kline 2015). On this basis, the data was deemed fit for inferential statistics.

**Table 5.2: Normality – Organisation Size Variables**

	Assets	Revenue	#Employees
Skewness	1,227	0,625	0,755
Kurtosis	0,761	-1,186	-0,729

Table 5.3 below indicates the returned mean values for assets, revenue and number of employees, over the five-year period, under observation.

**Table 5.3: Descriptive Statistics – Organisation Size (Mean)**

Year	Assets (Rm)	Revenue (Rm)	#Employees ('000)
2015	479105,6	41374,5	17,5
2016	489420,4	44659,1	17,9
2017	514736,7	51515,9	18,2
2018	552960,9	50541,4	18,9
2019	590105,1	64590,6	19,4

From the descriptive statistics drawn for the organisation size proxies, the mean value of assets increased across the entire period under observation. The mean value of revenue

increased between 2015 and 2017, dropped in 2018 and increased once again in 2019. And the mean number of employees increased across the entire period under observation.

Table 5.4 indicates the returned standard deviation values for assets, revenue and number of employees, over the five-year period, under observation.

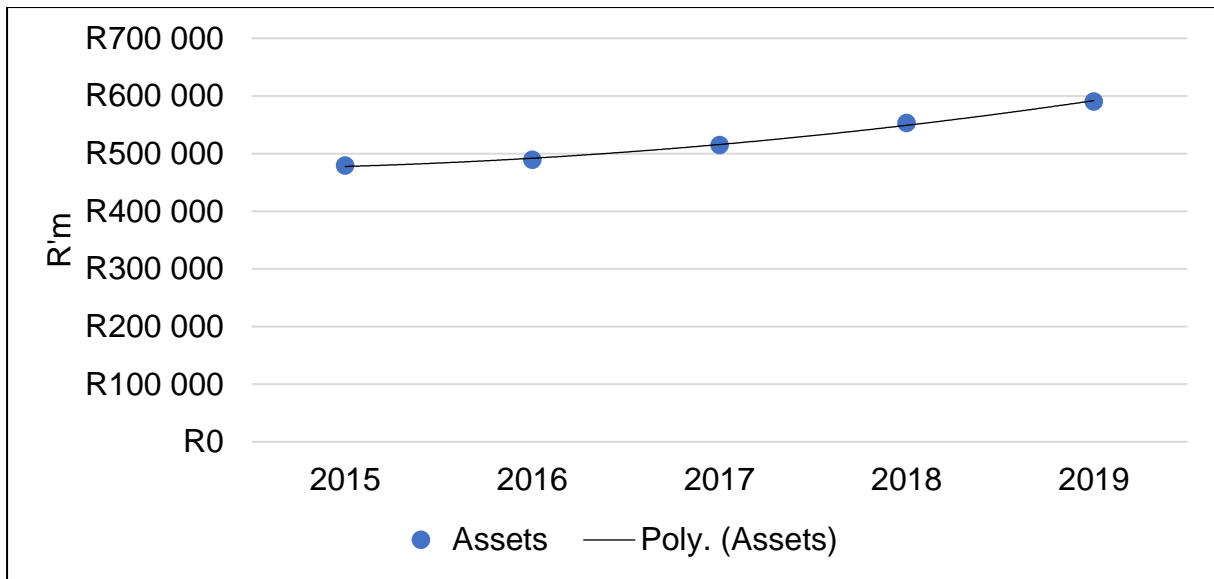
**Table 5.4: Descriptive Statistics – Organisation Size (Standard Deviation)**

Year	Assets (Rm)	Revenue (Rm)	#Employees ('000)
2015	587355,3	38326,2	17,9
2016	584682,7	40190,8	18,3
2017	610093,1	49609,5	18,0
2018	683851,9	45603,4	17,9
2019	735745,7	63967,3	18,6

From the descriptive statistics drawn for organisation size proxies, the standard deviation of assets decreased between 2015 and 2016 and increased once again for each period thereafter. The standard deviation of revenue increased between 2015 to 2017, dropped in 2018 and increased once again in 2019. And the standard deviation for number of employees increased between 2015 and 2016, dropped between 2016 and 2018 and increased once again in 2019.

#### **5.1.2.1 Measures of Organisation Size – Assets**

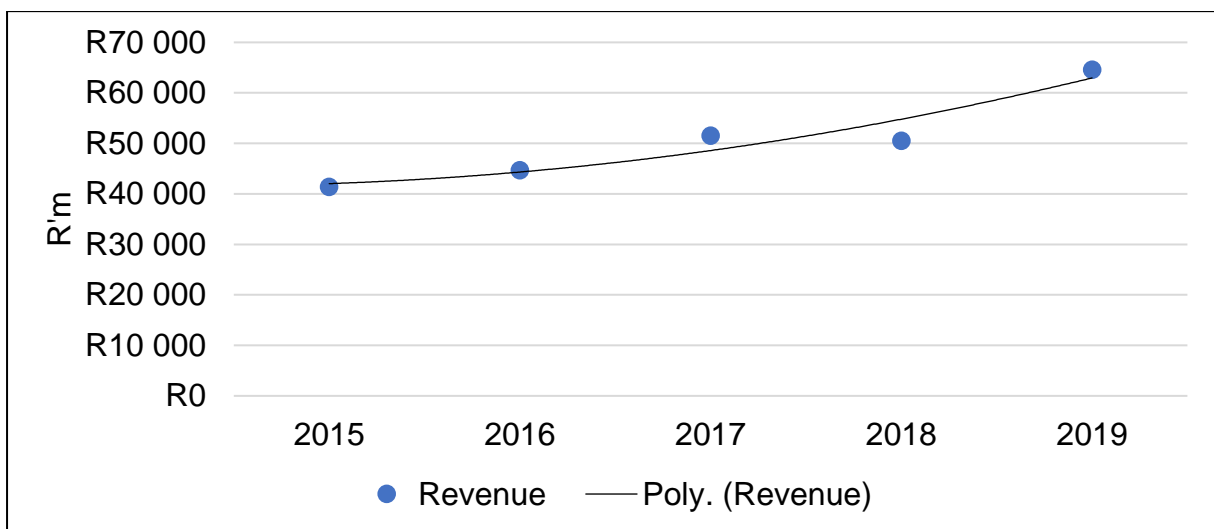
Figure 5.1 graphically represents the trend of mean assets over the period under observation. There has been a year-on-year increase across the entire period of observation and the trendline shows the upward trend. The mean of assets started at R 479 billion in 2015 and increased to R 590 billion in 2019 which represents a 23% growth over the five-year period.



**Figure 5.1: Assets – Mean Trend**

### 5.1.2.2 Measures of Organisation Size – Revenue

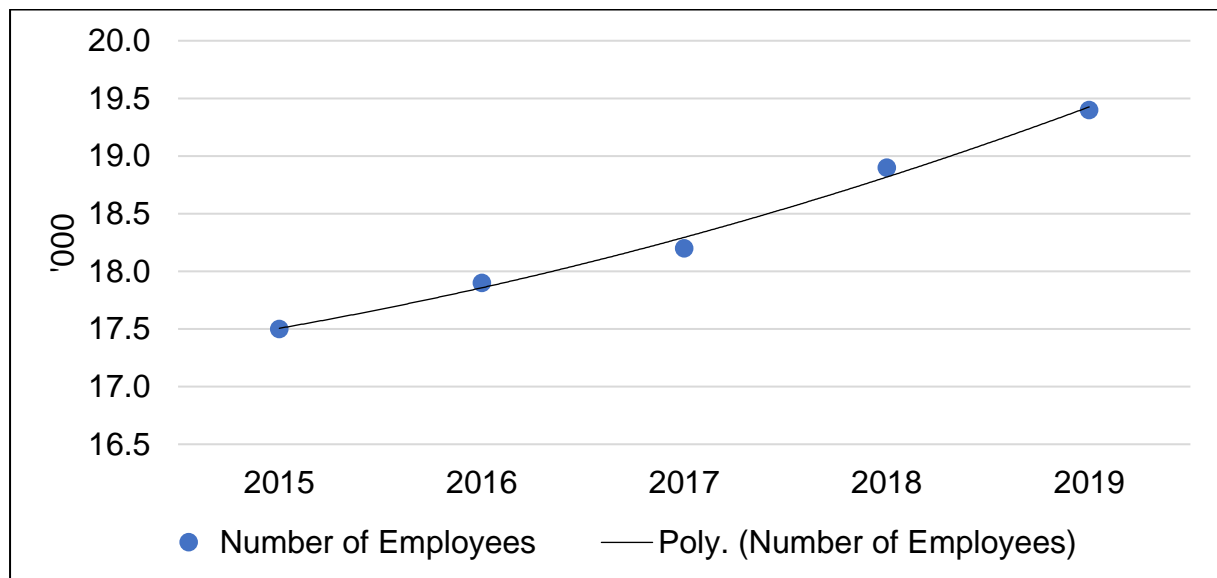
Figure 5.2 graphically represents the trend of mean revenue over the period under observation. There has been a year-on-year increase for the first three years under observation with a mean revenue of R 41,4 billion in 2015 and R 51,5 billion in 2017, representing a 24% increase over the period. In 2018, mean revenue dropped marginally but increased to R 64,6 billion at the end of 2019. This represents a 56% increase between 2015 and 2019.



**Figure 5.2: Revenue – Mean Trend**

### 5.1.2.3 Measures of Organisation Size – Number of Employees

Figure 5.3 graphically represents the trend for mean number of employees over the period under observation. There has been a year-on-year increase for the entire period. Mean number of employees was observed at 17 510 in 2015 and increased to 19 422 by the end of 2019. This represents a 10,9% increase between 2015 and 2019.



**Figure 5.3: Number of Employees – Mean Trend**

### 5.1.3 Measures of Organisation Performance

Organisation performance was measured by means of proxies for organisation performance. For this research, three proxies were used as measures of organisation performance namely profit, ROE and EPS, as each are indicative measures for the performance of an organisation.

Each variable was tested for internal consistency/reliability and normality, to ensure that inferential statistics could be drawn from the dataset. The Cronbach's alpha test was used to measure the internal consistency and reliability of the data. In addition, the skewness and kurtosis of the variables were tested to ensure that the data was normally distributed.

Table 5.5 below indicates the Cronbach's alpha values for the variables used to measure organisation performance. Taber (2018) states that values closer to one indicate a high degree of internal consistency and reliability. All three variables achieved a high score, indicating that there is a high degree of internal consistency for the proxy variables used to measure organisation performance.

**Table 5.5: Internal Consistency/Reliability – Organisation Performance Variables**

	Profit	ROE	EPS
Cronbach's alpha	0,99	0,98	0,99

Table 5.6 below indicates the Skewness and Kurtosis of the variables used to measure organisation performance. All three variables had a skewness value that fall within Taber's (2018) recommended range for skewness of less than 2 and kurtosis less than 7 and within the recommended range of Kline (2015) where skewness less than 3 and kurtosis less than 10 is deemed good. This indicates that the assumptions of normality have been met (Taber 2018; Kline 2015). On this basis, the data was deemed fit for inferential statistics.

**Table 5.6: Normality – Organisation Performance Variables**

	Profit	ROE	EPS
Skewness	1,425	1,253	0,977
Kurtosis	1,161	5,502	0,473

Table 5.7 below indicates the returned mean values for profit, ROE and EPS over the five-year period, under observation.

**Table 5.7: Descriptive Statistics – Organisation Performance (Mean)**

Year	Profit (Rm)	ROE (%)	EPS (cents)
2015	7451,9	24,59	1031
2016	7871,4	22,42	980
2017	8750,6	22,86	1048
2018	8699,3	21,20	1187
2019	8504,4	19,26	1197

From the descriptive statistics drawn for organisation performance proxies, the mean value of profit increased between 2015 and 2017 and decreased in 2018 and 2019. The mean value of ROE fluctuated across the entire period under observation, decreasing between 2015 and 2016, increasing in 2017 and decreasing in 2018 and 2019. And mean EPS decreased between 2015 and 2016 and increased year-on-year, thereafter.

Table 5.8 below indicates the returned standard deviation values for profit, ROE and EPS over the five-year period, under observation.

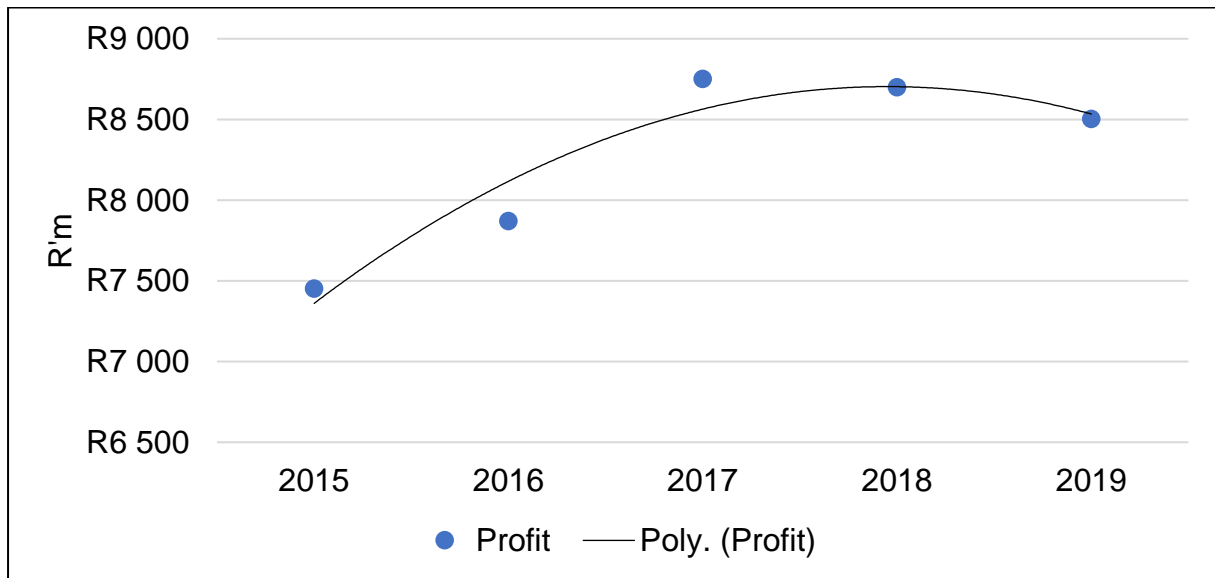
**Table 5.8: Descriptive Statistics – Organisation Performance (Standard Deviation)**

Year	Profit (Rm)	ROE (%)	EPS (c)
2015	7865,4	19,38	808
2016	8692,4	16,61	838
2017	9753,8	14,92	933
2018	9422,1	15,64	1098
2019	10407,9	13,26	1224

From the descriptive statistics drawn for organisation performance proxies, the standard deviation of profit increased year-on-year between 2015 and 2019. The standard deviation of ROE decreased between 2015 and 2017, increased in 2018 and decreased once again in 2019. And the standard deviation for EPS increased year-on-year, over the entire period under observation.

### 5.1.3.1 Measures of Organisation Performance – Profit

Figure 5.4 graphically represents the trend of mean profit over the period under observation. There has been a year-on-year increase between 2015 and 2017 from R 7,45 billion to R 8,75 billion. In 2018, mean profit dropped marginally and increased in 2019. Across the entire period under observation, mean profit grew by 14%.

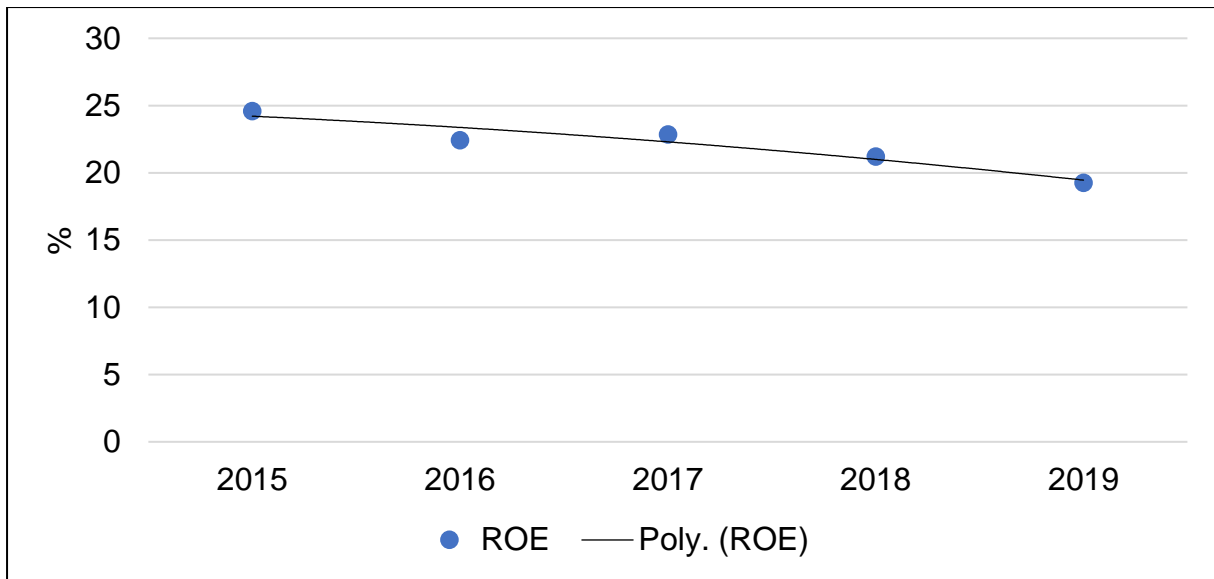


**Figure 5.4: Profit – Mean Trend**

### 5.1.3.2 Measures of Organisation Performance – ROE

Figure 5.5 graphically represents the downward trend exhibited, for the mean ROE, over the period under observation. Other than the marginal increase seen in 2017, all other years showed a year-on-year decline. Across the entire period under observation, the absolute drop in mean ROE was 5,3%, which equates to a 22% decline between 2015 and 2019.

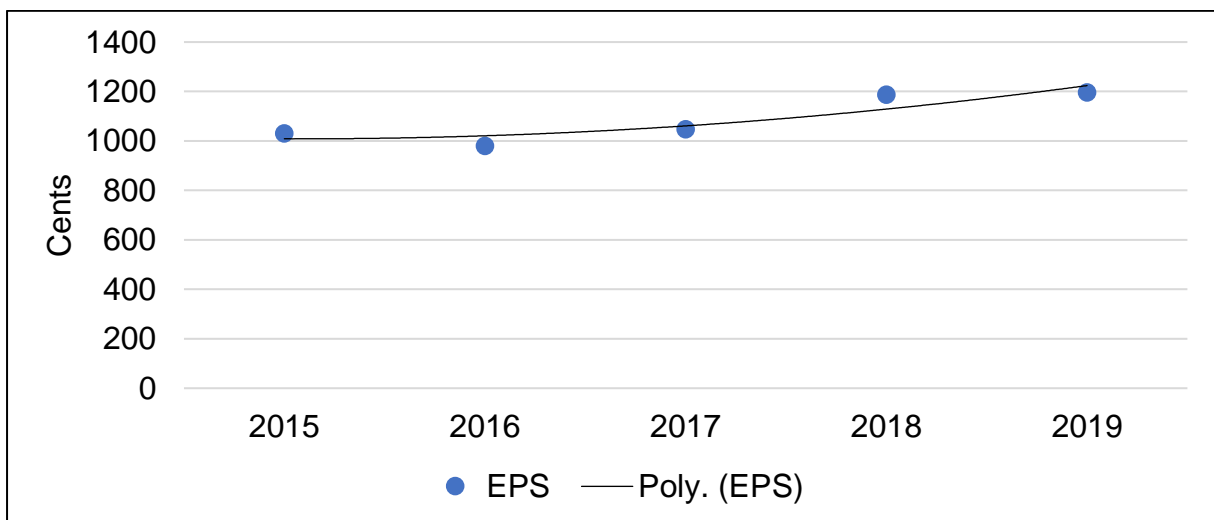




**Figure 5.5: ROE – Mean Trend**

### 5.1.3.3 Measures of Organisation Performance – EPS

Figure 5.6 graphically represents the upward trend exhibited, for mean EPS, over the period under observation. Other than the marginal decrease seen in 2016, all other years showed a year-on-year increase. Across the entire period under observation, the absolute increase in mean ROE was 166 cents, which equates to a 16.1% increase over the five-year period.



**Figure 5.6: EPS – Mean Trend**

#### 5.1.4 Measures of CEO Remuneration

CEO remuneration was broken down into the components of remuneration. Fixed, remuneration, variable remuneration and total remuneration was used as separate measures for the purposes of the study.

Each variable was tested for internal consistency/reliability and normality, to ensure that the data points were reliable and normally distributed so that inferential statistics could be drawn from the dataset. The Cronbach's alpha test was used to measure the internal consistency and reliability of the data. In addition, the skewness and kurtosis of the variables were tested to ensure that the data was normally distributed.

Table 5.9 below indicates the Cronbach's alpha values for the variables used to measure CEO remuneration. Taber (2018) states that values closer to one indicate a high degree of internal consistency and reliability. All three variables achieved a high score, indicating that there is a high degree of internal consistency for the proxy variables used to measure CEO remuneration.

**Table 5.9: Internal Consistency/Reliability – CEO Remuneration**

	Fixed	Variable	Total
Cronbach's alpha	0,97	0,95	0,96

Table 5.10 below shows the Skewness and Kurtosis of the variables used to measure CEO remuneration. All three variables had a skewness value that falls within Taber's (2018) recommended range for skewness of less than 2 and kurtosis less than 7 and within the recommended range of Kline (2015) where skewness less than 3 and kurtosis less than 10 is deemed good. This indicates that the assumptions of normality have been met (Taber 2018; Kline 2015). On this basis, the data was deemed fit for inferential statistics.

**Table 5.10: Normality – CEO Remuneration Variables**

	Fixed	Variable	Total
Skewness	0,213	0,536	0,668
Kurtosis	-0,606	0,322	-0,164

Table 5.11 below indicates the returned mean values for CEO fixed, variable and total remuneration over the five-year period, under observation.

**Table 5.11: Descriptive Statistics – CEO Remuneration (Mean)**

Year	Fixed (R'000)	Variable (R'000)	Total (R'000)
2015	6099,0	7639,7	14047,9
2016	6905,8	7727,3	14633,1
2017	7282,4	8963,1	16245,5
2018	7628,7	8408,5	16037,2
2019	7735,5	7511,7	15247,2

From the descriptive statistics drawn for CEO remuneration, the mean value of fixed remuneration increased year-on-year between 2015 and 2019. The mean value of variable remuneration increased between 2015 and 2017 and thereafter decreased year-on-year. And the mean value for total remuneration increase between 2015 and 2017 and decreased year-on-year thereafter.

Table 5.12 below indicates the returned standard deviation values for fixed, variable and total remuneration, over the five-year period, under observation.

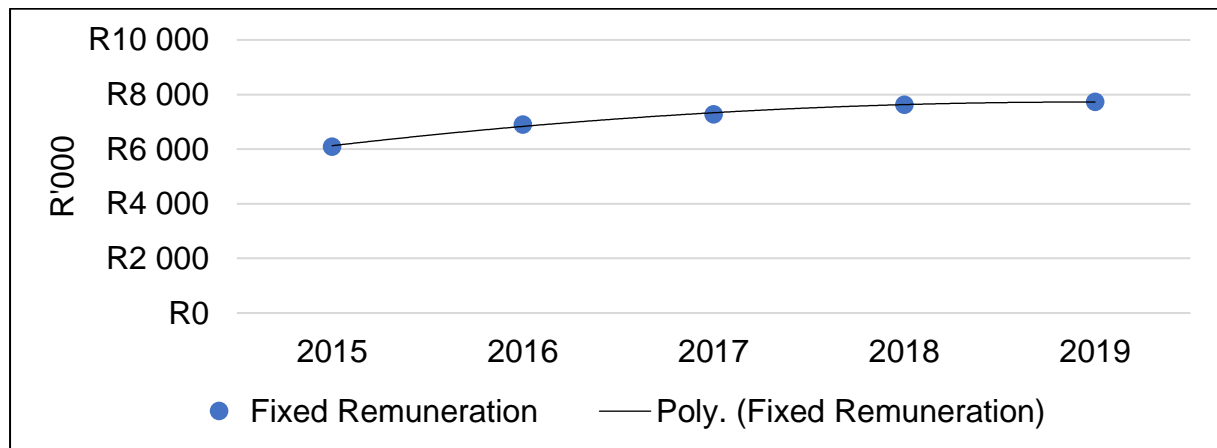
**Table 5.12: Descriptive Statistics – CEO Remuneration (Standard Deviation)**

Year	Fixed (R'000)	Variable (R'000)	Total (R'000)
2015	3495,0	4724,4	6532,2
2016	3867,9	4744,9	6853,0
2017	3810,9	6246,7	8133,5
2018	3598,9	6517,8	7805,1
2019	3719,1	5754,2	6650,0

From the descriptive statistics drawn for CEO remuneration, the standard deviation of fixed remuneration increased between 2015 and 2016, decreased year-on-year between 2016 and 2018 and increased in 2019. The standard deviation of variable remuneration increased between 2015 and 2018 and decreased between 2018 and 2019. And the standard deviation for total remuneration increased between 2015 and 2017 and decreased in subsequent years.

**5.1.4.1 Measures of CEO Remuneration - Fixed Remuneration**

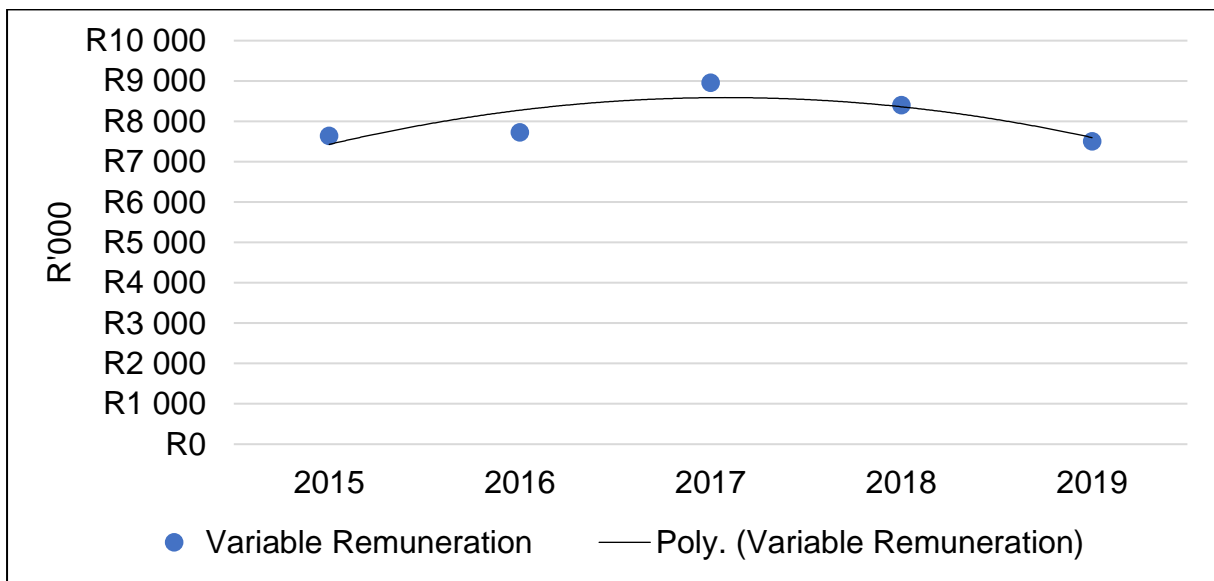
Figure 5.7 graphically represents the trend of mean fixed remuneration over the period under observation. There has been a year-on-year increase between 2015 and 2019 from R 6,1 million to R 7,7 million. Across the entire period under observation, mean fixed remuneration grew by 27%.



**Figure 5.7: Fixed Remuneration – Mean Trend**

### 5.1.4.2 Measures of CEO Remuneration - Variable Remuneration

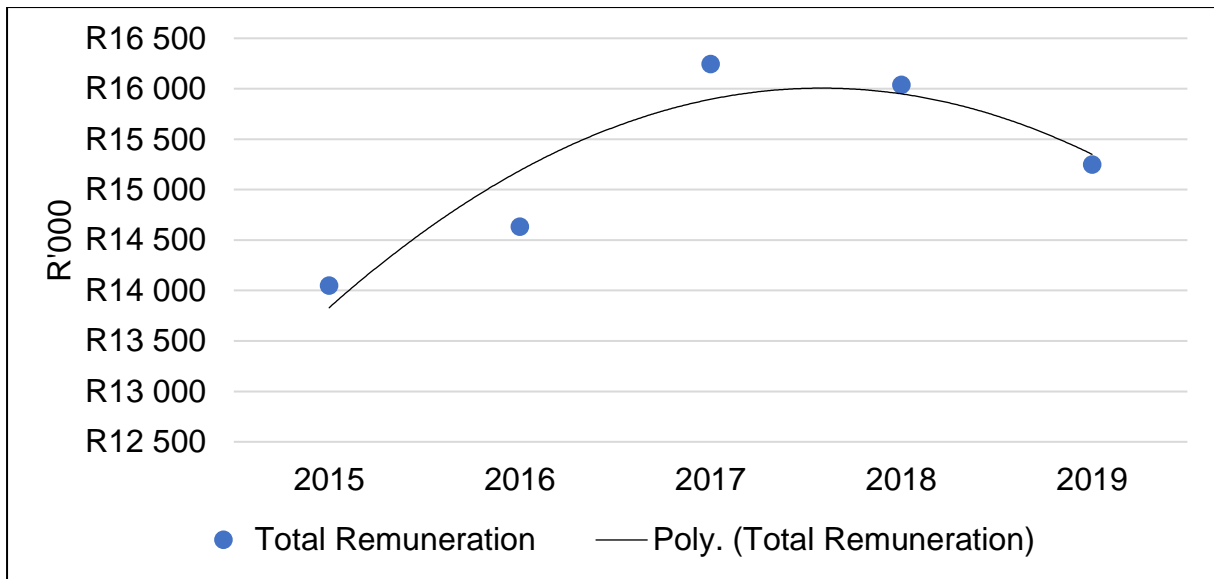
Figure 5.8 graphically represents the trend of mean variable remuneration over the period under observation. There has been a year-on-year increase between 2015 and 2017 and a decrease year-on-year between 2017 and 2019. Across the entire period under observation, mean variable remuneration decreased from R 7,64 million to R 7,51 million which equates to a 1,68% decrease over the five-year period.



**Figure 5.8: Variable Remuneration – Mean Trend**

### 5.1.4.3 Measures of CEO Remuneration - Total Remuneration

Figure 5.9 graphically represents the trend of mean total remuneration over the period under observation. There has been a year-on-year increase between 2015 and 2017 and a decrease year-on-year between 2017 and 2019. Across the entire period under observation, mean total remuneration increased from R 14,1 million to R 15,2 million which equates to an 8,54% increase over the five-year period.



**Figure 5.9: Total Remuneration – Mean Trend**

## 5.2 Results for the Research Hypotheses

The purpose of this research was to determine the relationship that organisation size, as measured by assets, revenue and number of employees and organisation performance, as measured by profit, ROE and EPS have on the components of CEO remuneration.

As a precursor to the regression analysis, a Pearson correlation test was run to measure the strength and direction of the linear relationship between organisation size and performance proxies and the dependent variables, during the period under observation (2015-2019).

### 5.2.1 Research Hypothesis One

Research hypothesis one tested whether organisation size is a significant determinant of CEO fixed remuneration.

$H_0$  Organisation size is not a significant determinant of CEO fixed remuneration

$H_1$  Organisation size is a significant determinant of CEO fixed remuneration

H<sub>1a</sub> Assets is a significant determinant of CEO fixed remuneration

H<sub>1b</sub> Revenue is a significant determinant of CEO fixed remuneration

H<sub>1c</sub> Number of employees is a significant determinant of CEO fixed remuneration

Table 5.13 highlights that there is largely no significant correlation between organisation size proxies and CEO fixed remuneration, other than a positive and significant correlation between assets and number of employees with CEO fixed remuneration in 2015 and a positive and significant correlation between revenue and number of employees with CEO fixed remuneration in 2016.

**Table 5.13: Pearson Correlation – Organisation Size and CEO Fixed Remuneration**

	2015	2016	2017	2018	2019	Average
Assets	0,612*	0,500	0,487	0,364	0,318	0,489
Revenue	0,477	0,516*	0,458	0,458	0,325	0,435
Employees	0,577*	0,528*	0,507	0,393	0,408	0,509

**\*\*p < 0,01**

**\*p < 0,05**

To test the relationship of all three proxies of organisation size on CEO fixed remuneration, a multiple regression was run. This multiple regression gives an indication of the relationship that organisation size, based on the relationship of its proxies, has on CEO fixed remuneration.

Table 5.14 shows the standardised coefficients and level of significance of the proxies used to measure organisation size. Over the five-year period under observation, the following was observed:

- Assets had a non-significant positive effect on CEO fixed remuneration. This implies that assets do not influence CEO fixed remuneration and therefore, the null hypothesis cannot be rejected.

- Revenue had a non-significant positive effect on CEO fixed remuneration. This implies that revenue does not influence CEO fixed remuneration and therefore, the null hypothesis cannot be rejected.
- Number of employees had a non-significant positive effect on CEO fixed remuneration. This implies that the number of employees does not influence CEO fixed remuneration and therefore, the null hypothesis cannot be rejected.
- 

The models adjusted  $R^2 = 0,062$  signifies that only 6.2% of the variation in CEO fixed remuneration is explained by the organisation size model.

**Table 5.14: Multiple Regression – Organisation Size on CEO Fixed Remuneration**

	2015	2016	2017	2018	2019	2015-2019
$\beta$ Assets	0,587	-0,043	0,043	-0,037	-0,622	0,040
$\beta$ Revenue	-0,017	0,248	0,175	-0,063	0,190	0,096
$\beta$ Employees	0,041	0,359	0,335	0,480	0,864	0,396
R2	0,375	0,296	0,271	0,156	0,216	0,263
Adjusted R2	0,205	0,104	0,072	-0,074	0,003	0,062
Sample Size	15,00	15,00	15,00	15,00	15,00	15,00

**\*\*p < 0,01**

**\*p < 0,05**

### 5.2.2 Research Hypothesis Two

Research hypothesis two tested whether organisation size is a significant determinant of CEO variable remuneration.

H<sub>0</sub> Organisation size is not a significant determinant of CEO variable remuneration

H<sub>2</sub> Organisation size is a significant determinant of CEO variable remuneration

H<sub>2a</sub> Assets is a significant determinant of CEO variable remuneration

H<sub>2b</sub> Revenue is a significant determinant of CEO variable remuneration

H<sub>2c</sub> Number of employees is a significant determinant of CEO variable remuneration



Table 5.15 highlights that there is a significant correlation between organisation size proxies and CEO variable remuneration. Over the period under observation, assets showed a statistically significant positive correlation for all five years, revenue showed a statistically significant positive correlation between 2016 and 2018 and number of employees showed a statistically significant positive correlation between 2015 and 2018 with CEO variable remuneration.

**Table 5.15: Pearson correlation – Organisation Size and CEO Variable Remuneration**

	2015	2016	2017	2018	2019	Average
Assets	0,597*	0,669**	0,664**	0,683**	0,559*	0,682**
Revenue	0,390	0,556*	0,638*	0,648**	0,509	0,589*
Employees	0,566*	0,672**	0,748**	0,645**	0,491	0,685**

**\*\*p < 0,01**

**\*p < 0,05**

To test the relationship of all three proxies of organisation size and CEO variable remuneration, a multiple regression function was run. The multiple regression gives an indication of the relationship that organisation size has, based on the relationship of its proxies, on CEO variable remuneration.

Table 5.16 shows the standardised coefficients and level of significance of the proxies used to measure organisation size. Over the five-year period under observation, the following was observed:

- Assets had a significant negative effect on CEO variable remuneration in 2017 but a non-significant positive effect on CEO variable remuneration, when an aggregate regression was run, for the entire five-year period. This implies that assets do not influence CEO variable remuneration and therefore, the null hypothesis cannot be rejected
- Revenue had a significant positive effect on CEO variable remuneration in 2017 and 2018 but a non-significant effect on CEO variable remuneration when an

aggregate regression was run, for the entire five-year period. This implies that revenue does not influence CEO variable remuneration and therefore, the null hypothesis cannot be rejected

- Number of employees had a non-significant positive effect on CEO variable remuneration. This implies that the number of employees does not influence CEO variable remuneration and therefore, the null hypothesis cannot be rejected
- 

The models adjusted  $R^2 = 0,345$  signifies that only 34.5% of the variation in CEO variable remuneration is explained by the organisation size model.

**Table 5.16: Multiple Regression – Organisation Size on CEO Variable Remuneration**

	2015	2016	2017	2018	2019	2015-2019
$\beta$ Assets	0,590	0,319	-0,377*	0,540	0,632	0,279
$\beta$ Revenue	-0,247	-0,06	0,203*	0,253*	0,236	0,116
$\beta$ Employees	0,214	0,42	0,95	-0,075	-0,255	0,331
R2	0,377	0,463	0,59	0,484	0,348	0,485
Adjusted R2	0,207	0,317	0,478	0,344	0,171	0,345
Sample Size	15,00	15,00	15,00	15,00	15,00	15,00

**\*\*p < 0,01**

**\*p < 0,05**

### 5.2.3 Research Hypothesis Three

Research hypothesis three tested whether organisation size is a significant determinant of CEO total remuneration.

H<sub>0</sub> Organisation size is not a significant determinant of CEO total remuneration

H<sub>3</sub> Organisation size is a significant determinant of CEO total remuneration

H<sub>3a</sub> Assets is a significant determinant of CEO total remuneration

H<sub>3b</sub> Revenue is a significant determinant of CEO total remuneration

H<sub>3c</sub> Number of employees is a significant determinant of CEO total remuneration

Table 5.17 highlights that there is a significant correlation between organisation size proxies and CEO total remuneration, for all five years under observation.

**Table 5.17: Pearson Correlation – Organisation Size and CEO Total Remuneration**

	2015	2016	2017	2018	2019	Average
Assets	0,726**	0,745**	0,738**	0,738**	0,661**	0,772**
Revenue	0,516*	0,676**	0,705**	0,681**	0,623*	0,675**
Employees	0,669**	0,764**	0,812**	0,720**	0,653**	0,781**

**\*\*p < 0,01**

**\*p < 0,05**

To test the relationship of all three proxies of organisation size and CEO total remuneration, a multiple regression function was run. This multiple regression gives an indication of the relationship that organisation size has, based on the relationship of its proxies, on CEO total remuneration.

Table 5.18 shows the standardised coefficients and level of significance of the proxies used to measure organisation size. Over the five-year period under observation, the following was observed:

- Assets had a non-significant positive effect on CEO total remuneration. This implies that assets do not influence CEO total remuneration and therefore, the null hypothesis cannot be rejected.
- Revenue had a non-significant positive effect on CEO total remuneration. This implies that revenue does not influence CEO total remuneration and therefore, the null hypothesis cannot be rejected.
- Number of employees had a non-significant positive effect on CEO total remuneration. This implies that the number of employees does not influence CEO total remuneration and therefore, the null hypothesis cannot be rejected.
- 

The models adjusted  $R^2 = 0,527$  signifies that 52.7% of the variation in CEO total remuneration is explained by the organisation size model.

**Table 5.18: Multiple Regression – Organisation Size on CEO Total Remuneration**

	2015	2016	2017	2018	2019	2015-2019
$\beta$ Assets	0,836	0,197	-0,269	0,434	0,199	0,263
$\beta$ Revenue	-0,138	0,099	0,238	0,183	0,311	0,147
$\beta$ Employees	-0,002	0,494	0,886	0,159	0,262	0,418
R2	0,534	0,59	0,689	0,559	0,497	0,628
Adjusted R2	0,408	0,479	0,604	0,438	0,359	0,527
Sample Size	15,00	15,00	15,00	15,00	15,00	15,00

**\*\*p< 0,01**

**\*p< 0,05**

#### 5.2.4 Research Hypothesis Four

Research hypothesis four tested whether organisation performance is a significant determinant of CEO fixed remuneration.

H<sub>0</sub> Organisation performance is not a significant determinant of CEO fixed remuneration

H<sub>4</sub> Organisation performance is a significant determinant of CEO fixed remuneration

H<sub>4a</sub> Profit is a significant determinant of CEO fixed remuneration

H<sub>4b</sub> ROE is a significant determinant of CEO fixed remuneration

H<sub>4c</sub> EPS is a significant determinant of CEO fixed remuneration

Table 5.19 highlights that there is a significant positive correlation between profit and CEO fixed remuneration between 2015 and 2017, a significant negative correlation between ROE and CEO fixed remuneration between 2016 and 2019 and a significant positive correlation between EPS and CEO fixed remuneration between 2016 and 2019.

**Table 5.19: Pearson Correlation – Organisation Performance on CEO Fixed Remuneration**

	2015	2016	2017	2018	2019	Average
Profit	0,741**	0,588*	0,566*	0,460	0,301	0,564*
ROE	-0,492	-0,519*	-0,609*	-0,631*	-0,615*	-0,620*
EPS	0,461	0,572*	0,555*	0,545*	0,565*	0,557*

**\*\*p < 0,01**

**\*p < 0,05**

To test the relationship of all three proxies of organisation performance and CEO fixed remuneration, a multiple regression function was run. This multiple regression gives an indication of the relationship that organisation performance has, based on the relationship of its proxies, on CEO fixed remuneration.

Table 5.20 shows the standardised coefficients and level of significance of the proxies used to measure organisation performance. Over the five-year period under observation, the following was observed:

- Profit has a significant positive effect on CEO fixed remuneration. This implies that profit has an influence on CEO fixed remuneration and therefore, the null hypothesis is rejected in favour of hypothesis H4<sub>a</sub>.
- ROE has a significant negative effect on CEO fixed remuneration. This implies that ROE does influence CEO fixed remuneration and therefore, the null hypothesis is rejected in favour of hypothesis H4<sub>b</sub>.
- EPS has a significant positive effect on CEO fixed remuneration. This implies that EPS does influence CEO fixed remuneration and therefore, the null hypothesis is rejected in favour of hypothesis H4<sub>c</sub>.

The models adjusted  $R^2 = 0,658$  signifies that 65.8% of the variation in CEO fixed remuneration is explained by the organisation performance model.

**Table 5.20: Multiple Regression – Organisation Performance on CEO Fixed Remuneration**

	2015	2016	2017	2018	2019	2015-2019
βProfit	0,576**	0,450*	0,402*	0,272	0,184	0,386*
βROE	-0,328	-0,323	-0,375	-0,517*	-0,545**	-0,465*
βEPS	0,254	0,393	0,385	0,435*	0,488*	0,374*
R2	0,732	0,666	0,67	0,689	0,667	0,737
Adjusted R2	0,652	0,566	0,579	0,604	0,576	0,658
Sample Size	15,00	15,00	15,00	15,00	15,00	15,00

**\*\*p < 0,01**

**\*p < 0,05**

### 5.2.5 Research Hypothesis Five

Research hypothesis five tested whether organisation performance is a significant determinant of CEO variable remuneration.

H<sub>0</sub> Organisation performance is not a significant determinant of CEO variable remuneration

H<sub>5</sub> Organisation performance is a significant determinant of CEO variable remuneration

H<sub>5a</sub> Profit is a significant determinant of CEO variable remuneration

H<sub>5b</sub> ROE is a significant determinant of CEO variable remuneration

H<sub>5c</sub> EPS is a significant determinant of CEO variable remuneration

Table 5.15 highlights that there is a significant correlation between profit and CEO variable remuneration. Over the period under observation, profit showed a statistically significant correlation for all five years while ROE and EPS did not show a statistically significant correlation with CEO variable remuneration.

**Table 5.21: Pearson Correlation – Organisation Performance and CEO Variable Remuneration**

	2015	2016	2017	2018	2019	Average
Profit	0,498	0,664**	0,774**	0,710**	0,196	0,735**
ROE	0,064	0,034	-0,076	0,047	0,196	0,045
EPS	0,041	0,181	-0,048	0,063	-0,064	-0,003

**\*\*p< 0,01**

**\*p< 0,05**

To test the relationship of all three proxies of organisation performance and CEO variable remuneration, a multiple regression function was run. The multiple regression gives an indication of the relationship that organisation performance has, based on the relationship of its proxies, on CEO variable remuneration.

Table 5.22 shows the standardised coefficients and level of significance of the proxies used to measure organisation performance. Over the five-year period under observation, the following was observed:

- Profit has a significant positive effect on CEO variable remuneration. This implies that profit has an influence on CEO variable remuneration and therefore, the null hypothesis is rejected in favour of hypothesis H5a.
- ROE has a non-significant positive effect with CEO variable remuneration. This implies that ROE does not influence CEO variable remuneration and therefore, the null hypothesis cannot be rejected.
- EPS has a non-significant negative effect with CEO variable remuneration. This implies that EPS does influence CEO variable remuneration and therefore, the null hypothesis cannot be rejected.

The models adjusted  $R^2 = 0,479$  signifies that 47.9% of the variation in CEO variable remuneration is explained by the organisation performance model.

**Table 5.22: Multiple Regression – Organisation Performance on CEO Variable Remuneration**

	2015	2016	2017	2018	2019	2015-2019
$\beta$ Profit	0,573	0,694*	0,829**	0,763**	0,754**	0,804**
$\beta$ ROE	0,235	0,214	0,128	0,21	0,267	0,229
$\beta$ EPS	-0,005	0,101	-0,126	-0,041	-0,124	-0,060
R2	0,295	0,488	0,638	0,549	0,596	0,599
Adjusted R2	0,084	0,335	0,539	0,426	0,486	0,479
Sample Size	15,00	15,00	15,00	15,00	15,00	15,00

**\*\*p< 0,01**

**\*p< 0,05**

### 5.2.6 Research Hypothesis Six

Research hypothesis six tested whether organisation performance is a significant determinant of CEO total remuneration.

H<sub>0</sub> Organisation performance is not a significant determinant of CEO total remuneration

H<sub>1</sub> Organisation performance is a significant determinant of CEO total remuneration

H<sub>6a</sub> Profit is a significant determinant of CEO total remuneration

H<sub>6b</sub> ROE is a significant determinant of CEO total remuneration

H<sub>6c</sub> EPS is a significant determinant of CEO total remuneration

Table 5.23 below highlights that assets showed a statistically significant correlation for all five years under observation whilst ROE and EPS showed no significant correlation with CEO total remuneration over the period under observation.



**Table 5.23: Pearson Correlation – Organisation Performance and CEO Total Remuneration**

	2015	2016	2017	2018	2019	Average
Profit	0,766**	0,792**	0,860**	0,805**	0,783**	0,856**
ROE	-0,251	-0,269	-0,344	-0,251	-0,174	-0,295
EPS	0,308	0,448	0,223	0,304	0,261	0,287

**\*\*p< 0,01**

**\*p< 0,05**

To test the relationship of all three proxies of organisation performance and CEO total remuneration, a multiple regression function was run. The multiple regression gives an indication of the relationship that organisation performance has, based on the relationship of its proxies, on CEO total remuneration.

Table 5.24 shows the standardised coefficients and level of significance of the proxies used to measure organisation performance. Over the five-year period under observation, the following was observed:

- Profit has a significant positive effect on CEO total remuneration. This implies that profit has an influence on CEO total remuneration and therefore, the null hypothesis is rejected in favour of hypothesis H6a.
- ROE has a non-significant negative effect on CEO total remuneration. This implies that ROE does not influence CEO total remuneration and therefore, the null hypothesis cannot be rejected.
- EPS has a non-significant positive effect on CEO total remuneration. This implies that EPS does not influence CEO total remuneration and therefore, the null hypothesis cannot be rejected.

The models adjusted  $R^2 = 0,699$  signifies that 69.9% of the variation in CEO total remuneration is explained by the organisation performance model.

**Table 5.24: Multiple Regression – Organisation Performance on CEO Total Remuneration**

	2015	2016	2017	2018	2019	2015-2019
βProfit	0,717**	0,737**	0,825**	0,763**	0,756**	0,818**
βROE	-0,035	-0,032	-0,077	-0,063	-0,074	-0,072
βEPS	0,157	0,291	0,084	0,166	0,166	0,146
R2	0,534	0,59	0,689	0,559	0,497	0,769
Adjusted R2	0,408	0,479	0,604	0,438	0,359	0,699
Sample Size	15,00	15,00	15,00	15,00	15,00	15,00

**\*\*p < 0,01**

**\*p < 0,05**

### 5.3 Summary of Results

All variables used in the models were tested for internal reliability and received an adequate score. In addition, the skewness and kurtosis of the data was checked, and the data was cleared for inferential statistics, as all measures were deemed fit.

When assessing organisation size on the components of CEO remuneration, the regression results for research hypothesis one showed that organisation size is not a significant determinant of CEO fixed remuneration. In addition, the model was only able to explain 6.3% of the variation in CEO fixed remuneration. The regression results for research hypothesis two showed that assets had a significant negative effect on CEO variable remuneration in 2017 and revenue had a significant positive effect on CEO variable remuneration in 2017 and 2018. However, when an aggregate regression was run, for the entire period under observation, it was concluded that organisation size is not a significant determinant of CEO variable remuneration. In addition, the model was only able to explain 34.5% of the variation in CEO variable remuneration. And the regression results for research hypothesis three showed that organisation size is not a significant determinant of CEO total remuneration. The model was able to explain 52.7% of the variation in CEO total remuneration which indicates a moderate level of explanatory power.

When assessing organisation performance on the components of CEO remuneration, the regression results for research hypothesis four showed that there is a significant positive influence between profit and CEO fixed remuneration, a significant negative influence between ROE and CEO fixed remuneration and a significant positive influence between EPS and CEO fixed remuneration. On this basis, it was concluded that organisation performance is a significant predictor of CEO fixed remuneration. The model was able to explain 65.8% of the variation in CEO fixed remuneration which indicates a relatively high degree of explanatory power for the model. The results for research hypothesis five showed that there is a significant positive influence between profit and CEO variable remuneration. On this basis, it was concluded that organisation performance, when measured by profit, is a significant determinant of CEO variable remuneration. However, the model was only able to explain 47.9% of the variation in CEO variable remuneration, which indicates a moderate degree of explanatory power for the model. And the results for research hypothesis six showed that there is a significant positive influence between profit and CEO total remuneration. On this basis, it was concluded that organisation performance, when measured by profit, is a significant determinant of CEO total remuneration. The model was able to explain 69.9% of the variation in CEO total remuneration which indicates a relatively high degree of explanatory power for the model.

From the above, it can be concluded that organisation size, when measured by assets, revenue and number of employees, is not a significant determinant of CEO fixed, variable or total remuneration. In contrast, organisation performance, when measured by profit, ROE and EPS, is a significant determinant of CEO fixed remuneration and a significant determinant of variable and total remuneration, when measured by profit. Overall, profit seems to be the strongest determinant of the components of CEO remuneration and a significant positive effect was observed for all three components of CEO remuneration.

## **Chapter 6: Discussion of Results**

This chapter will consist of a discussion of the results outlined above and a triangulation between the research questions, the finding of this research and the literature and finding of studies that have previously been done on the same topic.

### **6.1 Introduction**

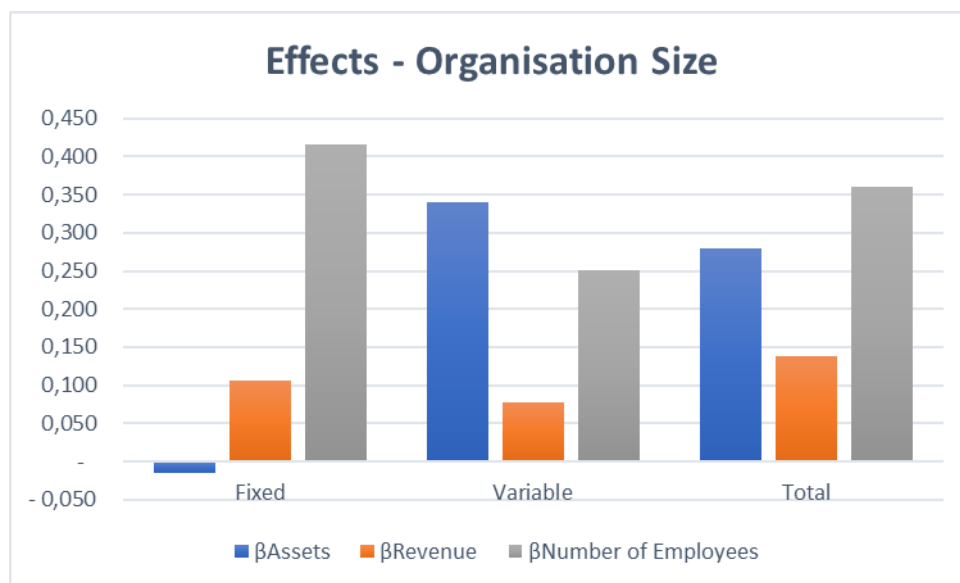
Based on Adams (2019) view, remuneration is paid to people in the form of monetary payments, non-monetary benefits as well as supplementary payments that were made on the basis of specific tasks being achieved. This study set out to identify the determinants of these payments to better understand why CEOs earn the remuneration they do. One school of thought alluded to CEO remuneration being largely determined by organisation size (Zhou, 2019), whilst others suggested that performance was a stronger determinant of CEO remuneration (Dale-Olsen, 2012; Sonenshine, Larson, & Cauvel, 2016; Zhou, 2000). As such, these constructs were tested on 15 JSE listed financial service organisations, by means of a regression analysis, and the findings will be discussed in this chapter.

### **6.2 Construct One – Organisation Size**

In line with earlier studies, assets, revenue and number of employees were used as proxies for organisation size. (Acero & Alcalde, 2019; Merhebi, Pattenden, Swan, & Xianming, 2006; Zhou, 2000) used assets as a measure of organisation size in their studies. (Ghazali & Taib, 2015; Merhebi, Pattenden, Swan, & Xianming, 2006; Sonenshine, Larson, & Cauvel, 2016; Zhou, 2000) used revenue as a proxy for organisation size and Zhou (2000) indicated that the marginal product of the actions of the CEO are magnified by the span of their control, invariably resulting in a higher demand on the CEO, who in turn demands a premium wage for their efforts. Therefore, the number of employees was introduced as a measure of organisation size in this study.

The descriptive statistics showed an upward trend, for all organisation size variables, over the five-year period, under observation. The trendline exhibited a slope that was increasing and therefore concave upward for all three variables where assets, revenue and number of employees grew by 23%, 56% and 10.9% respectively, between the start and end of the period. In contrast, the trendline for CEO remuneration exhibited a slope that was concave downward for all three measures of CEO remuneration. CEO fixed remuneration, and total remuneration grew by 27% and 8.54% respectively, between the start and end of the period, while CEO variable remuneration decreased by 1.68% over the same period. The standard deviation observed for all variables were high, indicating that the range of values for each variable, observed across all organisations, was varied.

Figure 6.1 graphically represents the aggregate effect ( $\beta$ ), for each organisation size variable, on the various components of CEO remuneration.



**Figure 6.1: Effect ( $\beta$ ) – Organisation Size Variables (2015-2019)**

### 6.2.1 Research Hypothesis One

Research hypothesis one looked at organisation size, as measured by assets, revenue and the number of employees, to determine if organisation size was a significant determinant of CEO fixed remuneration.

The Pearson correlation results indicated that assets, revenue, and number of employees showed a non-significant positive correlation with CEO fixed remuneration, over the five-year period, when measure at an aggregate level. On an individual level, the correlation between assets and CEO fixed remuneration was only found to be significant in 2015 and the correlation diminished over the five-year period. The correlation between revenue and CEO fixed remuneration was found to be significant in 2016 but the correlation diminished over the five-year period and number of employees exhibited a significant correlation with CEO fixed remuneration in 2015 and 2016 but the correlation diminished over the five-year period.

The regression of all three size variables on CEO fixed remuneration showed that assets had a negative effect on CEO fixed remuneration, for three of the five years under observation, with 2015 having the strongest positive effect on CEO fixed remuneration. Revenue showed a negative effect of CEO fixed remuneration for two of the five years under observation. The strongest positive effect between revenue and CEO fixed remuneration was observed in 2015 but the effect of revenue diminished thereafter. The number of employees showed a positive effect on CEO fixed remuneration and increased from 2017 onward. The coefficients were all found to be insignificant over the entire period and when measured at an aggregate level, over the five-year period, assets, revenue and the number of employees did not have a significant effect on CEO fixed remuneration.

This implies that organisation size is not a significant determinant of CEO fixed remuneration. In addition, the model, as a whole, was only able to explain 6.2% of the variation in CEO fixed remuneration which is low and indicates low predictive power for the organisation size model on fixed remuneration.

## 6.2.2 Research Hypothesis Two

Research hypothesis two looked at organisation size, as measured by assets, revenue and the number of employees to determine if size was a significant determinant of CEO variable remuneration.

The Pearson correlation indicated that assets, revenue, and number of employees showed a significant positive correlation, with CEO variable remuneration, for the five-year period, when measure at an aggregate level. On an individual level, the correlation between assets and CEO variable remuneration was found to be significant for all five years under observation. The correlation peaked in 2016 and diminished thereafter. The correlation between revenue and CEO variable remuneration was found to be significant and the correlation coefficient increased between 2016 and 2018 but diminished in 2019 and became insignificant. The number of employees exhibited a significant correlation with CEO variable remuneration between 2015 and 2018 but the correlation diminished from 2018 and was found to be insignificant in 2019.

The regression of all three size variables on CEO variable remuneration showed that assets had a negative and significant effect on CEO variable remuneration in 2017 but the correlation for all other years was found to be positive and insignificant. Revenue showed a positive and significant correlation with CEO variable remuneration in 2017 and 2018 with 2018 having the strongest positive effect on CEO variable remuneration. The number of employees showed a positive but insignificant effect on CEO variable remuneration between 2015 and 2017 but the effect turned negative between 2018 and 2019. Overall, the effect of the number of employees on CEO variable remuneration was found to be insignificant.

The coefficients were all found to be insignificant over the entire period, when measured at an aggregate level, over the five-year period. Assets, revenue and the number of employees did not have a significant effect on CEO variable remuneration. This implies that organisation size is not a significant determinant of CEO variable remuneration. In addition, the model, as a whole, was only able to explain 34.5% of the variation in CEO

variable remuneration which is low and indicates low predictive power for the organisation size model on variable remuneration.

### **6.2.3 Research Hypothesis Three**

Research hypothesis three looked at organisation size, as measured by assets, revenue and the number of employees to determine if size was a significant determinant of CEO total remuneration.

The Pearson correlation indicated that assets, revenue, and number of employees showed a significant positive correlation with CEO total remuneration, for the five-year period, when measure at an aggregate level. On an individual level, the correlation between assets and CEO total remuneration was significant for all five years under observation. The correlation peaked in 2016 and diminished thereafter. The correlation between revenue and CEO total remuneration was found to be significant and the correlation coefficient increased between 2015 and 2017 but diminished in 2018 and 2019. The number of employees exhibited a significant correlation with CEO total remuneration over the five-year period, peaking in 2018 and diminishing thereafter.

The regression of all three size variables on CEO total remuneration showed that assets had a negative and insignificant effect on CEO total remuneration in 2017 but the correlation for all other years was found to be positive and insignificant. Revenue showed a negative and insignificant effect with CEO total remuneration in 2016 and the effect was found to be positive and insignificant over the remaining four years. The number of employees had a negative and insignificant effect on CEO total remuneration in 2017 but the effect turned positive between 2016 and 2019 and remained insignificant.

The coefficients were all found to be insignificant over the entire period and when measured at an aggregate level, over the five-year period, assets, revenue and the number of employees did not have a significant effect on CEO total remuneration. This implies that organisation size is not a significant determinant of CEO total remuneration.



In addition, the model, as a whole, was able to explain 52.7% of the variation in CEO total remuneration which is moderate and indicates a moderate level of predictive power for the organisation size model on CEO total remuneration.

#### **6.2.4 Summary of Findings – Organisation Size**

In line with the findings by Zhou (2000), assets had a negative effect on CEO remuneration for 2016, 2018 and 2019, but when an aggregate regression was run, assets showed a non-significant positive effect on CEO remuneration. This contrasts with the findings of Acero and Alcalde (2019) who found that assets, as a proxy for organisation size, explained most of the variation in CEO remuneration.

With respect to revenue as a proxy for organisation size, (Merhebi, Pattenden, Swan, & Xianming, 2006; Hussain, Obaid, & Khan, 2014; Sonenshine, Larson, & Cauvel, 2016; Zhou, 2000) found that the relationship between sales revenue and CEO remuneration is positive and statistically significant, which is in contrast to what was observed in this study. In addition to the findings above, Ghazali and Taib (2015) suggested that the quantum of remuneration is directly linked to organisation size which has not been proved in this study.

Merhebi, Pattenden, Swan and Xianming (2006), and Bussin and Ncube (2017), have proposed that organisation size is a more applicable determinant of CEO remuneration at the beginning of the CEOs tenure, as performance of the CEO in question, will be indeterminable at that point. In addition, Sonenshine, Larson, and Cauvel (2016) concur and go further to state that organisation size variables lose their explanatory power over time and they found that organisation size had no significant effect on CEO remuneration in the long-term. The findings of this study are in line with the findings of Sonenshine, Larson, and Cauvel (2016).

Based on the above, it is evident that the findings of this study seemingly indicate that organisation size has limited explanatory power over the determination of CEO remuneration. This can be viewed in a positive light as it reduces the prevalence of moral

hazard where CEO remuneration is determined by variables that do not align with the shareholder objectives, where remuneration is not underpinned by a strong performance link (Ghazali & Taib, 2015).

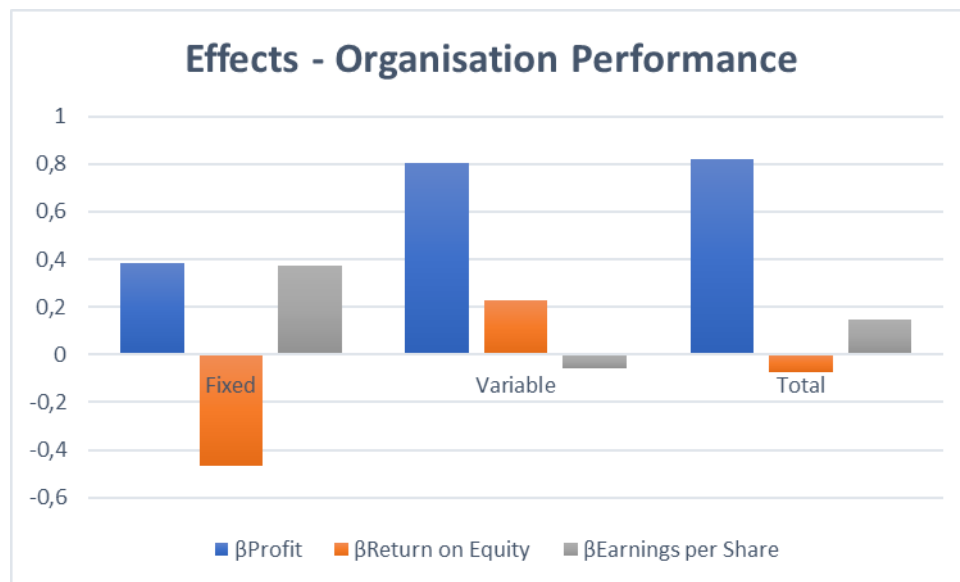
### **6.3 Construct Two – Organisation Performance**

Lange, Boivie, and Westphal (2015) state that there is a qualitative difference in the requirements of a CEO, when compared to employees at all other levels of an organisations and states that there is a causal relationship between the CEO and the performance of an organisation. Therefore, performance becomes a key measure of CEO success. In addition, Martin and Magnan (2019) have observed a shift in the trend of payment practices, where organisations are linking a significant proportion of CEO remuneration to performance measures, making this portion of remuneration at risk. In line with earlier studies, profit, ROE and EPS have been used as proxies for organisation performance in this study, to test the relationship between organisation performance and CEO remuneration. In particular (Dale-Olsen, 2012; Ghazali & Taib, 2015) used profit as a measure of organisation performance in their studies. (Acero & Alcalde, 2019; Hussain, Obaid, & Khan, 2014; Merhebi, Pattenden, Swan, & Xianming, 2006; Zhou, 2000) used ROE as a proxy for organisation performance and (Otomasa, Shiiba, & Shuto, 2020; Sonenshine, Larson, & Cauvel, 2016) used earnings as a proxy for organisation performance in their studies.

The descriptive statistics for organisation performance showed a mixed trend, for all organisation performance variables, over the five-year period under observation. The trendline for profit and ROE exhibited a slope that was decreasing and therefore concave downward. Profit increased by 14% over the period under observation whilst ROE decreased by 22% over the same period. The trendline for EPS exhibited a slope that was increasing and therefore concave upward. Over the period under observation, EPS had increased by 16.1%. In contrast, the trendline for CEO remuneration exhibited a slope that was concave downward for all three measures of CEO remuneration. CEO fixed remuneration, and total remuneration grew by 27% and 8.54% respectively, between the start and end of the period, while CEO variable remuneration decreased by 1.68% over

the same period. The standard deviation observed for all variables were high, indicating that the range of values for each variable, observed across all organisations, was varied.

Figure 6.2 graphically represents the aggregate effect ( $\beta$ ), for each organisation performance variable, on the various components of CEO remuneration.



**Figure 6.2: Effect ( $\beta$ ) – Organisation Performance Variables (2015-2019)**

### 6.3.1 Research Hypothesis Four

Research hypothesis four looked at organisation performance, as measured by profit, ROE and EPS to determine if organisation performance was a significant determinant of CEO fixed remuneration.

The Pearson correlation indicated that profit and EPS had a significant positive correlation, with CEO fixed remuneration, for the five-year period. ROE was found to have a significant negative correlation with CEO fixed remuneration, when measured at an aggregate level. On an individual level, the correlation between profit and CEO fixed remuneration was only found to be significant between 2015 and 2017. The correlation was at its highest in 2015 and diminished thereafter. The correlation between ROE and CEO fixed remuneration was found to be negative and significant between 2016 and 2019 and the

correlation coefficient increased between 2016 and 2018 but diminished in 2019. EPS exhibited a significant positive correlation with CEO fixed remuneration between 2016 and 2019.

The regression of all three performance variables showed that profit had a positive and significant effect on CEO fixed remuneration between 2015 and 2017 but the effect diminished and turned insignificant between 2018 and 2019. ROE showed a negative and significant effect with CEO fixed remuneration in 2018 and 2019 with 2019 having the strongest negative effect on CEO fixed remuneration. EPS showed a positive and significant effect on CEO fixed remuneration between 2018 and 2019, with 2019 having the strongest effect on CEO fixed remuneration.

Overall, the coefficients, when measured at an aggregate level (five-years), showed a significant effect on CEO fixed remuneration. This implies that organisation performance is a significant determinant of CEO fixed remuneration. In addition, the model, as a whole, was able to explain 65.8% of the variation in CEO fixed remuneration which is high and indicates strong predictive power for the organisation performance model on fixed remuneration.

### **6.3.2 Research Hypothesis Five**

Research hypothesis five looked at organisation performance, as measured by profit, ROE and EPS to determine if organisation performance was a significant determinant of CEO variable remuneration.

The Pearson correlation indicated that profit was the only variable that showed a significant positive correlation, with CEO variable remuneration, for the five-year period, when measure at an aggregate level. On an individual level, the correlation between profit and CEO variable remuneration was found to be significant between 2016 and 2018. The correlation was at its highest in 2017 and diminished thereafter. The correlation between ROE and CEO variable remuneration was found to be negative and insignificant in 2017 but positive and insignificant for all other years. EPS exhibited a negative and insignificant correlation with CEO variable remuneration between 2017 and 2019 but was found to

have a positive and insignificant correlation with CEO variable remuneration for all other years.

The regression of all three performance variables on CEO variable remuneration showed that profit had a positive and significant effect on CEO variable remuneration between 2016 and 2019, peaking in 2017 and diminished thereafter. ROE showed a positive and insignificant effect with CEO variable remuneration over the five-year period. And EPS showed a positive and insignificant effect on CEO variable remuneration in 2016 but showed a positive and insignificant effect on CEO variable remuneration for all other years.

Overall, the coefficients, when measured at an aggregate level (five-years), showed that profit was the only variable that had a significant effect on CEO variable remuneration. This implies that organisation performance, when measured by profit, is a significant determinant of CEO variable remuneration. In addition, the model, as a whole, was able to explain 47.9% of the variation in CEO variable remuneration which is moderate and indicates moderate predictive power of the organisation performance model on variable remuneration.

### **6.3.3 Research Hypothesis Six**

Research hypothesis six looked at organisation performance, as measured by profit, ROE and EPS to determine if organisation performance was a significant determinant of CEO total remuneration.

The Pearson correlation indicated that profit was the only variable that showed a significant positive correlation, with CEO total remuneration, for the five-year period, when measured at an aggregate level. On an individual level, the correlation between profit and CEO total remuneration was found to be significant for all five years. The correlation was at its highest in 2017 and diminished thereafter. The correlation between ROE and CEO total remuneration was found to be negative and insignificant in every year. And EPS

exhibited a positive and insignificant correlation with CEO total remuneration between 2015 and 2019.

The regression of all three performance variables on CEO total remuneration showed that profit had a positive and significant effect on CEO total remuneration for all years under observation, peaking in 2017 and diminishing thereafter. ROE showed a negative and insignificant effect with CEO total remuneration over the five-year period. And EPS showed a positive and insignificant effect on CEO total remuneration over the five-year period.

Overall, the coefficients, when measured at an aggregate level (five-years), showed that profit was the only variable that had a significant effect on CEO total remuneration. This implies that organisation performance, when measured by profit, is a significant determinant of CEO total remuneration. In addition, the model, as a whole, was able to explain 69.9% of the variation in CEO total remuneration which is high and indicates high predictive power for the organisation performance model on total remuneration.

#### **6.3.4 Summary of Findings – Organisation Performance**

The findings of this research show that organisation performance, specifically when measured by profit, ROE and EPS is a significant determinant of CEO fixed remuneration. In addition, when measured by profit, organisation performance is a significant determinant of CEO variable and total remuneration. These findings are in line with (Merhebi, Pattenden, Swan, & Xianming, 2006; Zhou, 2000) who found that organisation performance is a significant determinant of CEO remuneration. In addition, Dale-Olsen (2012) observed that, when measured by profit, organisation performance is a significant determinant of CEO remuneration.

In contrast to the findings above, (Acero & Alcalde ,2019; Ghazali & Taib, 2015; Hussain, Obaid, & Khan, 2014) found there to be no significant relationship between organisation

performance and CEO remuneration, when organisation performance was measured by profit and ROE.

Martin and Magnan (2019) observed a shift in trends toward a pay for performance remuneration structure, of late. Similarly, Sonenshine, Larson and Cauvel (2016) concur but have attributed this shift in remuneration principles to the financial crisis of 2008, in an attempt to align the interests of the principal and agent. Therefore, agency-theory does play a role in the mechanics behind CEO remuneration trends that have been observed by Sonenshine, Larson, and Cauvel (2016) and their findings are in line with what has been observed in this study.

We can therefore conclude that organisation performance, when measured by profit, ROE and EPS is a significant determinant of CEO fixed remuneration and this model is able to explain 65.8% of the variation in CEO fixed remuneration. In addition, when measured by profit, organisation performance is able to explain 47.9% and 69.9% of CEO variable and CEO total remuneration, respectively. On this basis, organisation performance, as measured by profit is the most significant determinant of CEO remuneration, over the period 2015-2019, for CEOs of JSE listed financial services organisations.

## **Chapter 7: Conclusion**

### **7.1 Introduction**

This chapter will round up the research by highlighting the key findings that have been observed. Recommendations will be presented based on the management implications of this research and the shortcomings of the research will be discussed to provide a suggested approach for future research on this topic.

The purpose of this research was to assess measures of organisation size and organisation performance to confirm whether either of these measures were significant determinants of CEO remuneration, for financial services organisations, listed on the JSE. The findings and links to literature provide a baseline for the latest trend in remuneration setting and confirm whether organisation size or organisation performance filter through as determinants in the setting of CEO remuneration, for JSE listed financial services organisations.

### **7.2 Key Findings**

The key findings of this study are that organisation size, as measured by assets, revenue and number of employees is not a significant determinant of CEO fixed, variable or total remuneration. In contrast, organisation performance, as measured by profit, ROE and EPS is a significant determinant of CEO fixed remuneration, and when measure by profit, is a significant determinant of CEO variable and total remuneration.



Table 7.1 highlights the variation in CEO remuneration that was explained by the individual models.

**Table 7.1: Explanatory Power of Models (R<sup>2</sup>)**

Explanatory Power (R <sup>2</sup> )	Fixed Remuneration	Variable Remuneration	Total Remuneration
Organisation Size	6.2%	34.5%	52.7%
Organisation Performance	65.8%	47.9%	69.9%

### 7.2.1 Organisation Size

The mixed views on the influence of organisation size on CEO remuneration highlighted that there is no consensus on the influence that organisation size has on CEO remuneration, nor the proxies that should be used to accurately predict CEO remuneration. The findings of this study showed there to be no significant relationship between organisation size and any of the components of CEO remuneration, even after using universally accepted variables as proxies for organisation size. In addition, the models that were created showed moderate to low levels of explanatory power which indicated that organisation size, as measured by assets, revenue and number of employees is not a good predictor of CEO fixed, variable and total remuneration, when assessing their influence over the remuneration earned by CEOs of financial services organisations, listed on the JSE.

### 7.2.2 Organisation Performance

Similar to the views on organisation size, there are mixed views on the influence of organisation performance on CEO remuneration. This highlighted that there is no consensus on the influence that organisation performance has on CEO remuneration, nor the proxies that should be used to accurately predict CEO remuneration. The findings of this study indicated a significant relationship between organisation performance, as measured by profit, ROE and EPS and CEO fixed remuneration. In addition, organisation

performance, as measured by profit, proved to be a significant determinant of CEO variable remuneration and CEO total remuneration. The models that were created showed moderate to high levels of explanatory power which indicates that organisation performance is a good predictor of CEO fixed, variable and total remuneration, when assessing their influence over the remuneration earned by CEOs of financial services organisations, listed on the JSE.

### **7.3 Implications for Management**

Based on the findings, and in line with literature, it is becoming clearer that a remuneration-performance link is required to drive alignment between the agent and the principal. Linder and Foss (2015) state that information asymmetry can have dire consequences and results in the agent benefiting at the expense of the principal, creating a welfare loss that is invariably borne by the principal.

As such, in the context of South Africa, the results of this study have shown that financial services organisations have tied both elements of CEO remuneration to the overall performance of the organisation, which places the agent's total remuneration at risk in the absence of satisfactory organisational performance.

These findings are in line with King IV which recommends that organisations, in South Africa, should use performance measures that support positive outcomes within the organisation and that organisations should provide an account of the performance measures that have been used in CEO remuneration setting (Institute of Directors Southern Africa, 2016). Although a guideline, these recommendations coupled with the requirements of the Companies Act (2008), which compels organisations to disclose the remuneration paid to CEOs, as well as the benefits they receive, creates a degree of transparency that stakeholders require to ensure that their best interests are being taken care of.

Therefore, where remuneration committees diligently apply the guidelines of King IV, a higher degree of transparency and trust is created with stakeholders of the organisation. Applying these processes empowers stakeholders with the information they need to hold the board of directors accountable for any poor decisions made in this regard and assists in neutralizing managerial power to a certain degree, especially where CEOs have a considerable influence over the board and attempt to use this influence to extract higher remuneration.

In addition to the measures that are driven from a Companies Act and King IV perspective, remuneration committees can introduce additional measures such as the say-on-pay approach to remuneration setting. This approach allows shareholders to have oversight and a say on the remuneration paid to CEOs. In their research, Newman, Banning, Johnson, and Newman (2019) observed a reduction in pay ratios and observed a significant reduction in CEO remuneration in organisations, post the implementation of the say-on-pay measures being adopted. Similarly, this measure helps neutralise the effects of managerial power in an attempt to extract additional remuneration from encumbered board members.

#### **7.4 Limitations of Research**

- i. The focus of this research was on the top 15 JSE listed financial services organisations, based on their market capitalization. As such these organisations can be deemed large and the findings of this research may not lend itself to organisations that are classified as medium or small organisations. Davis, Batchelor, and Kreiser (2018) highlight that the scale of the organisation should also be taken into consideration when setting up the metrics for CEO remuneration, because small and medium enterprises (SME's) may not be able to apply the same remuneration metrics based on performance. The measures used in this research is specific to large organisations and they may not have wider applicability where the scale of the organisation is not classified as large.

- ii. This research focused primarily on the effects of organisation metrics, being size and performance. Finkelstein and Hambrick (1989) refer to CEOs as highly skilled and qualified individuals. And in this instance, skills and qualifications are captured in the human capital characteristics of a CEO, which this research did not account for. As such, some of the explanatory power of these variables will not have been accounted for and their influence on the determination of fixed, variable and total remuneration will not be evident in this study.
  
- iii. The organisations included in the sample for this research was limited to financial services organisations, listed on the JSE. As such, no comparatives can be drawn across industries to determine if the findings are applicable to other JSE listed organisations, that fall outside of the financial services industry. In addition, based on the sample selection criteria, the findings of this research may not be applicable to private financial services organisations that are not listed on the JSE.

## **7.5 Suggestions for Future Research**

- i. Future research should include a broader spectrum of industries. This will allow for comparatives to be drawn between the findings of each industry and to determine if there is a convergence or divergence of remuneration setting practices that have emerged over time.
  
- ii. The tenure of CEO's should be included in the research to determine whether tenure plays a role in the influence that organisation size has on CEO fixed remuneration.
  
- iii. The size of the organisations selected for the study should be more varied by not selecting organisations on the basis of market capitalisation. Rather, market capitalisation should be used to categorise these organisations into small, medium and large organisations for the sake of drawing parallels based on the findings. This will allow for a broader degree of applicability of the results from the study.

- iv. Given the shifts in market trends, a longer period of observation could be helpful in showing the shifts in remuneration setting trends, if any appear in the findings of the research. For example, a study that looked back prior to 2008 may have findings that show the shift in trends post the financial crisis of 2008, thereby adding more depth to the research and its findings.

## **7.6 Summary of Conclusion**

This study set out to determine the influence that organisation size and organisation performance has on the components of CEO remuneration. Two categories of remuneration were looked at, being fixed remuneration and variable remuneration (limited to STIs). LTIs were deliberately excluded as although provisioned for, are not guaranteed, and can be problematic in a study of this nature (Core, Halthausen, & Larcker, 1999).

The research focused specifically on the remuneration, which was defined by Adams (2019) as payment that is made to people of high status within an organisation, and payments that comes in the form of monetary, non-monetary and supplementary benefits. The high status that Adams (2019) refers to, positions CEOs as the highest ranked authority in an organisation and because of this rank, CEOs are said to have significant influence and power over the resources of the organisation and in some instances, over the the board, enabling them to influence remuneration setting principles and extract rents.

The study reviewed literature on agency theory and managerial power as well as the controls for them, through the optimal contracting approach. And some researchers alluded to the fact that a performance-based remuneration structure is the best mechanism to align the interests of the agent and principal, in an attempt to neutralize the agency problem (Martin & Magnan, 2019). In addition to their view, Newman, Banning, Johnson, and Newman (2019) introduced the concept of say-on-pay which they observed to have a neutralising effect on managerial power. Based on the above, the literature has shown that in order to drive an alignment between agent and principal and to ensure that CEOs take a prudent approach in their decisions, remuneration set against performance

can drive an optimal outcome and reduce the welfare loss that otherwise arises where alignment between an agent and principal is lacking.

This research has shown a strong remuneration-performance link for CEOs of financial services organisations, listed on the JSE. In particular, profit, ROE and EPS, when used as measures of organisation performance showed that organisation performance is a strong determinant of CEO fixed remuneration. In addition, when measure by profit, organisation performance is a significant determinant of CEO variable and total remuneration. On this basis, we can conclude that South African financial services organisations base their remuneration setting process on the organisations performance and this link is in line with the recommendations set out by the King IV governance framework, which is not a framework that is applied globally. This could be the explanation for the different results of similar studies conducted in other countries.

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## 9 Appendix

### 9.1 Appendix A – Ethical Clearance Certificate

**Gordon Institute  
of Business Science**  
University of Pretoria

**Ethical Clearance  
Approved**

Dear Wayne Ramgath,

Please be advised that your application for Ethical Clearance has been approved.

You are therefore allowed to continue collecting your data.

We wish you everything of the best for the rest of the project.

[Ethical Clearance Form](#)

Kind Regards

This email has been sent from an unmonitored email account. If you have any comments or concerns, please contact the GIBS Research Admin team.