

**Gordon Institute
of Business Science**
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Effects of race on CEO pay-performance sensitivities

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Abstract

Orientation: The available literature has revealed a polarised picture regarding the effects of race on CEO remuneration. This division centres on whether race is a beneficial factor or not with regard to the level and sensitivity of remuneration received. Introducing South Africa's affirmative labour policies and the growing societal calls to better explain executive remuneration creates the unique opportunity to examine the effects of race on CEO pay.

Research purpose: The purpose of the research centred on two important themes. Firstly the research sought to investigate the effects of race on the sensitivity of executive pay to corporate performance. Secondly the effects of race on the level and structure of executive pay was probed.

Motivation for the study: The primary motivation of the study centred on determining whether race has an effect, if any, on the remuneration paid to CEOs in South Africa. This will assist in understanding whether the affirmative policies implemented in South Africa have made any impact in the top level of executive remuneration.

Research design: The study was designed to be quantitative, descriptive and longitudinal in nature utilising valid secondary data sources. The BFA Macgregor online financial database was selected as the most appropriate source of both corporate performance information and directors' remuneration. Nineteen black CEOs were identified along with a random sample of 45 white CEOs. Following the data been analysed for reliability and validity it was then subject to primary and secondary statistical tests to determine significance and correlation strength.

Main findings/results: All components of South African CEO remuneration studied were found to strongly correlate to PAT and EBITDA and to a lesser degree ROE and HEPS. ROE and HEPS have shown correlation strength growth in recent years. This collection of measures reflects a balanced basket of accounting-based and non-accounting based measures. Black and white CEO mean remuneration when compared

was found to have no significant difference due to race. A notable difference found was the higher degree of pay-performance sensitivity and variability seen within the black CEO sample.

Practical/Managerial implications: King III compels boards and remuneration committees to ensure remuneration of directors is fair and reasonable, sensitive to performance and aligned with the strategy of the organisation. Ensuring realistic pay-performance sensitivities are not just a corporate governance requirement but also help alleviate principle-agent issues while correctly incentivising the CEO. Boards looking to appoint black or minority CEOs should continue to remunerate in an equitable and fair manner and be aware of such mental biases such as the “inverse Matthew effect” and other social out-group biases especially when evaluating performance.

Contribution: The study showed that race doesn’t affect the level of CEO remuneration but does impact on the pay-performance sensitivity and the variability. The difference in sensitivity and variability could indicate the presence of mental biases such as the “inverse Matthew effect” and other social out-group biases when evaluating performance.

Keywords

Remuneration, Compensation, Minority CEO remuneration; Pay-performance sensitivities; 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.

Sean Patrick Barrett

10 November 2014

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Chapter 1: Introduction to the Research Problem

1.1 Background to the Research Problem

The Chief Executive Officer (CEO) is under fire. On numerous fronts, the CEO role and that of other senior executives is being more openly and publically criticised around issues ranging from excessive compensation to poor performance delivered to lack of transformation to poor labour relations. Firstly CEO compensation will always capture the interests of the media and the public. As packages, bonuses and options reach ever-greater amounts so too does the public outcry. Professor Mark Bussin, in an opinion piece submission to Business Day in 2013, distils the situation with “the large amounts paid to executives, in exchange for their competence and expertise is inevitably compared with the back-breaking poverty experienced by so many”.

Providing context to this is the appointment of Sasol’s latest CEO David Constable in 2013 on a R1 000 000 per week package. It is perhaps understandable that the likes of NUMSA and the SACP would take offense to this and the 68% increase Constable received to take the position (Ngobese, 2013). Constable is a topical example and is certainly not alone. Tom Boardman earned R43 000 000 in 2012 (Bonorchis, 2012) and more recently Standard Bank awarding its two new joint CEO’s R28 000 000 each after nine months of being in the position (Barron, 2014). Investor activists such as Theo Botha are becoming more vocal calling for reform in the ways board remunerate and consider shareholder wishes (Whitfield, 2013). Looking globally excessive remuneration and improper incentives of banking executives are largely regarded as one of the main contributors to the global financial crisis from 2008 as discussed in detail by Shaw (2012) and Van Blerck (2012).

The difficulty in South Africa is the myriad of poignant socioeconomic issues and in particular income inequality, transformation and trust in the labour market. South Africa that has one of the highest income inequalities in the world (Tregenna & Tsela, 2012) combined with an official unemployment rate greater than 25% (Lehohla, 2014). Those employed saw average monthly earnings per employee of below R15 000

increasing by 5.6% in the last year (Masiteng, 2014). Koolan (2013) analysis of South Africa's 2012 Tax Statistics shows that only 12.8% of households earn an income of greater than R400 000 per annum and lowest quintile survive off less than R4 543 per annum .

South African labour and executives have, given our past, been two disparate groups aggressive, self-interested and lacking understanding and empathy of each other. The comments made by Amplats CEO Chris Griffith during the recent AMCU strike perhaps reveal the size of the divide "Must I run this company and deal with this nonsense for nothing? I'm at work. I'm not on strike. I am not demanding to be paid what I'm not worth." (Seccombe, 2014). The comments were made in defence of an R75 000 000 skills-retention/bonus scheme announced for Griffith and the eleven executives, and is a telling indictment of the attitude of certain executives towards their own pay and that of their employees.

AngloGold Ashanti CEO Srinivasan Venkatakrishnam further crystallises this in his statement to FinWeek "I think the circle of trust is broken. We need to start repairing that circle" (Whitfield, 2013, p. 32). Supporting this is South Africa's performance within the Labour Market Efficiency pillar of the most recent Global Competiveness Report (GCR). The GCR in particular highlights South Africa's poor ability to manage employer-labour relations, its rigid wage determination and its poor pay and productivity ratios. In these categories South Africa scores in the bottom 2% of the 144 countries measured (Schwab, 2013).

As a counterargument Bussin (2013) points out context is very important. He further argues that despite the vast and visible inequality gaps, attracting, motivating and remunerating top performing executives will ultimately grow our economy. Wessel (2006) supports this and raises several other counter arguments in his opinion piece. Firstly he indicates that CEO compensation is a result of supply and demand for executive skills and expertise for managing large, complex organisations. This is echoed by Bussin (2013) who notes that such skills and expertise can now be traded across borders. The increasing mobility of executive skills means South African firms now

need to compete for resources within the global executive labour market.

Wessel (2006) moreover notes that growth of U.S. CEO remuneration is in line with the growth of U.S companies and that these companies are willing to pay highly for small talent differentials. The reason being is that these small talent differentials can be multiplied through a large company to release large value. Kaplan (2008) adds to the debate by stating that CEO earnings growth is in line with earnings growth of other less public professions such as bankers and lawyers.

Clearly CEO and executive remuneration remains an emotional topic, resulting in a primary quest of much of the literature to see if the CEO pay results in corporate performance. Should pay be correlated with performance then the large compensation packages may be more palatable. Returning to the South African context once again there is certainly doubt as to whether labour will ever understand the justification of executive remuneration given the vast disparities in how effort and performance is valued, measured and remunerated between the two groups. The enactment of the employment equity act in 1998 was the formal step taken to redress the discriminatory employment practises of the past. As a form of fair discrimination it is intended to promote the employment interests of previously disadvantaged individuals (PDI).

Income inequality in South Africa has been falling since 2002 however Tregenna and Tsela (2012), through studying inequality within South Africa, noted that redistribution has been limited. This is most likely due to the lack of significant changes in the composition of those employed with whites still earning significantly more than blacks. Tregenna and Tsela (2012) note this “racial wage premium” is slowing, reducing as the effects of Apartheid subside. Tregenna and Tsela (2012) study does not provide insight directly into the transformation status of executives and thus opens the question as to whether black executives are facing the same remuneration constraints.

Regarding transformation of the executive in South Africa Goodman-Bhyat (2013) found that black executives only accounted 15% of the executive. Weinstock (2014)

interestingly notes that this is largely in line with minority executive representation in the USA. The typical South African CEO, according to the report by Goodman-Bhyat (2013), is a white South African male in their 50's earning between R10 000 000 and R20 000 000 annually and having been in the position for less than five years.

As noted above black executives account for roughly 15% of the executive population however demographically black persons represent 79% of South Africa's population (Lehohla, 2013). This underrepresentation, although a key focus of Employment Equity Act (No 55 of 1998) and the Broad-based Black Economic Employment Act (No 53 of 2003) still remains today. Thus, although majority in population black executives are a minority in the C-Suite.

The remuneration effects of the minority status of black executives are divided between two large bodies of knowledge. Firstly there is research that the minority status is in fact a disadvantage and remuneration levels are adversely affected (Hill, Upadhyay, & Beekun, 2014; Kulich, Trojanowski, Ryan, Alexander Haslam, & Renneboog, 2011; Park & Westphal, 2013; Selody, 2010). This is countered by researches that find that the minority status of executives is in fact beneficial (Hillman, Cannella, & Harris, 2002; Hillman, Shropshire, & Cannella, 2007; McDonald & Westphal, 2013; Zweigenhaft & Domhoff, 2011). The majority of the above research sits in America and as noted by Nzukuma and Bussin (2011) there is minimal South African literature pertaining to senior black executives on this topic.

A review of the established literature in the field of pay-for-performance sensitivity will show a dual continuum regarding the degree of sensitivity and the maturity of performance measures. Studies focusing on developing countries (including China, India and Bangladesh) largely find a reliance on accounting-based measures (low maturity) of corporate performance and relatively weak performance sensitivity (Conyon & He, 2011; Ghosh, 2006; Rashid, 2013). Developed country studies (including the USA, Canada, the UK and Australia) in this field largely found a reliance on higher maturity measures, such as either market-based or economic-based measure of corporate performance, and relatively higher performance sensitivity ((Bugeja, da Silva

Rosa, Duong, & Izan, 2012; Conyon, Fernandes, Ferreira, Matos, & Murphy, 2011; Ozkan, 2011; Zhou, 2000).

The above discussion around remuneration and transformation is relevant because it provides perspective and context on how the public, media and labour drive public opinion around the topic of remuneration of executives. Public opinion, in a functioning democracy, will drive future public policy and legislation and thus should not be ignored by business. The uniqueness of the South African business environment is best captured by Van Melle Kamp and Hofmeyr (2013) in their quotation of a prominent CEO who states that “corporates have a disproportionate role to play in the repositioning of the country, compared with other countries” (p. 18).

In summary of the background to the research problem it is clear that the remuneration of senior executives is largely regarded in an unfavourable light but this is heightened in South Africa given the reasons described above. These issues are varied, broad and many are beyond the scope of this study however they do paint an important backdrop to understanding the context of executive remuneration in South Africa. Moreover South African businesses have more complex role expectations in society, given our empowerment and employment equity frameworks, than counterparts in other countries. Therefore businesses have the opportunity, and in some case the imperative, to ensure executive remuneration is set at more palatable levels, acknowledge the need for diversity and comprise a sufficient performance component.

1.2 Research Motivation

The examination of the effects of race on CEO pay for performance sensitivities is important as it will begin to shed light on some of the themes discussed above. A study such as this would firstly quantify the remuneration and the increases thereof year to year that the average South African CEO receives. This analysis would assist in providing a factual basis in deciding whether South African CEOs are excessively remunerated or not.

Secondly such a study would allow then a diagnosis of the degree to which corporate performance impacts this level of remuneration. It is important to understand the strength of the link between the CEO performance and their level of remuneration. The strength of this link, measured by pay-performance sensitivities, would determine if CEOs are remunerated for the performance they deliver.

Thirdly such a study would reveal the effect of race on the above two items. Thus it would aid in deciding if white South African CEOs are indeed paid more or less than their black counterparts at the C-suite level. Further to this such a study would then determine if race affects how strongly performance is rewarded. Given South Africa's context remuneration equity around race is important.

Finally tying in these three items (pay level, performance sensitivity and race) together through this study would assist by adding to the debate of whether CEO pay in South Africa can ultimately be considered fair or not.

1.3 Research Problem Defined

The background to the research problem painted a very broad backdrop of the perceptions of executive remuneration in South Africa. The intention of this was to provide coarse context to the situational factors facing remuneration committees when setting executive pay packages. In defining the research problem more closely this broadness will need to be tightened moving forward.

Drawing the themes introduced together, the primary research problem identified for this study is to see if the minority status, and thus race, has a beneficial or detrimental effect on the level and performance sensitivity of remuneration of black CEO's in South Africa. With the noise evident on excessive CEO pay and a lack of transformation in the C-suite in the popular media an objective quantitative study is required to provide insight as to the current status of CEO race, pay and performance. Should such a study not proceed then it would be unclear as to whether CEO pay and

performance has transformed along with South Africa.

Attempting to understand how organisations define and measure corporate performance for the purposes of calculating performance pay of executives is a vital piece to the executive remuneration puzzle. Using pay-for-performance sensitivity analysis it is possible to see which measures of corporate performance most closely correlate with the pay executives receive. This will highlight which measures of corporate performance are most favoured by boards in motivating and aligning executives with the interests of shareholders.

1.4 Research Objectives

The identification and definition of the two main research problems undertaken in the previous section have assisted in crystallising the need for the study. They are also fundamental as they directly influence the forming of the research objectives.

1.4.1 Research Objective One

The first research objective of the study is to better understand against which types of corporate performance measures (accounting or market-based) South African CEO's in general are incentivised against. The intension is to understand if boards and remuneration committees favour the use of accounting-based or market-based corporate performance measures without the variable of race involved.

Race is specifically excluded from this research objective. This is because an understanding of the general state of pay-for-performance amongst South African CEOs is needed before inferences can be made about the effect of race. Thus the intention of this research objective is to build the foundations upon which the second research objective is based.

1.4.2 Research Objective Two

The second objective of the study is built upon the first through the introduction of race as a variable to determine if the race of the CEO has an effect on the degree of sensitivity of their remuneration towards corporate performance.

Through the answering this research objective an understanding if black CEO performance contracts favour a different set of corporate performance metrics than their white counterparts would be obtained. This will assist in determining partly if minority status, or race, has a favourable or unfavourable effect on the remuneration and could indicate the degree of equity between the two groups.

1.4.3 Research Objective Three

The final objective of the study is to obtain an understanding into the differences, if any, between the level and structure of remuneration between black and white CEO's.

The intention of this objective, as with the second, is to determine the degree of remuneration equity between black and white CEOs in South Africa through a different approach. Through answering this objective a clearer picture of the pay differences between black and white CEOs will be obtained.

1.5 Summary of the Introduction

Executive remuneration, within the complex web of South Africa's socioeconomic fabric, will be an emotive subject. Poverty, growing income inequality, lagging transformation and aggressive labour relationships experienced by the vast majority of ordinary South Africans may make the salaries, bonus and share schemes of the executive appear unpalatable.

Juxtaposed to the above businesses are in a legitimate fight to secure scarce executive skills in a competitive globalising labour market. Businesses need to be able to attract, motivate and retain performing executives, amongst other employees. As the complexity and size of organisations grow so too does the need for executives capable

of dealing with such large and complex firms. The marginal talent possessed by one CEO over another, multiplied through the size of the organisation, can provide massive value to the organisation concerned.

In South Africa, given its empowerment and employment equity legislation, means that the race of the CEO could be a valuable commodity when negotiating their employment contract. Accentuating this value is the low representation and scarcity of PDI CEOs in South Africa. The effects of race on remuneration will be explored further in the literature review.

South African organisations often have additional requirements placed upon them in terms assisting the country with its socioeconomic upliftment. Stakeholders have a growing voice and it's no longer simply the case of the shareholders sole wishes driving the direction of businesses. The recent labour unrest and protracted strikes bear testament to the growing dissatisfaction of labour who often point to excessive executive remuneration and pay gaps as key grievances. Investment and shareholder activists are more frequently challenging boards to explain their executive pay decisions.

Within this atmosphere of public dissatisfaction, businesses are still faced with the same age-old question of aligning executive incentives in line with those of the shareholders. Obtaining the correct balance of guaranteed pay and performance-related pay that incentivises the CEO while limiting rent extraction is of key concern to the board. Flanking this is the disquiet around the selection of the appropriate performance measures that drive economic value creating behaviours while being understandable to the executive concerned. Compounding the above is the issue of the race of the CEO and how the remuneration committee values and contracts around this factor.

Therein rests the intended contribution of this study. Given all the public noise around executive remuneration, how do boards realistically and properly incentivise for performance, through their choice of corporate performance measures, and does the

race of the CEO impact on this balance if any.

The next chapter will review the available and relevant literature on the themes uncovered in this chapter. This is done to better define the context of the research problem within the available body of knowledge.

Chapter 2: Literature Review

2.1 Introduction

The previous chapter provided an introduction to the many complexities surrounding the topic of executive remuneration in South Africa. The unique situation of South Africa presents certain challenges to remuneration committees who are attempting to balance tightening governance on the topic, increased sensitivities to other stakeholder groups, the need for transformation of the executive and the ability to attract, retain and motivate a diverse base of executive skill.

In this chapter, the relevant research constructs will be presented in an attempt to provide insight into the previously undertaken research pertinent to the research problem. The review of the literature begins with understanding the underlying principles of motivation and incentives in the work environment. This is critical to understanding how motivation and incentives interplays with attempts to combat the principal-agent issue faced by shareholders.

Thereafter, the literature moves to how managerial power can promote rent extraction and offset optimal contracting. Following this the constructs of CEO remuneration in the light of corporate governance and company performance are explored. Concluding the literature review is an understanding of the dynamics facing minority CEO's and the effects of race on remuneration.

2.2 Theoretical Background

2.2.1 Theories of Motivation

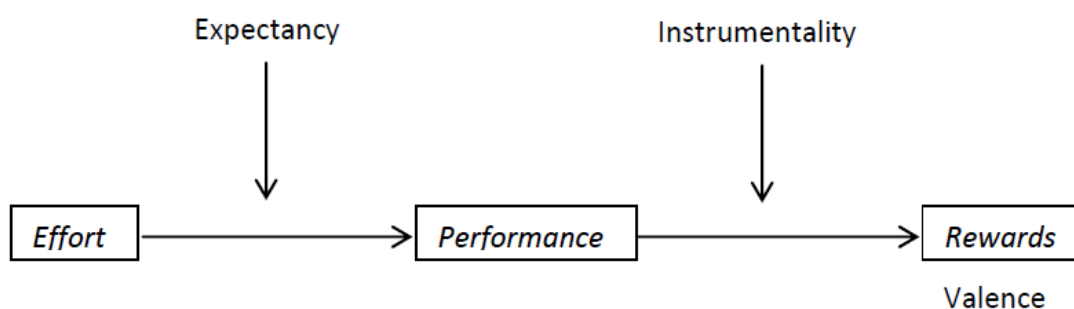
The study of human motivation is a vast field of interest. Given the constraints of this study certain aspects of this field will be selected for comment. Lunenburg (2011) notes in his study that need-based theories of Maslow, Herzberg, Alderfer and McClelland, developed in the 1970's, attempt to explain what motivates people in the work place. These theories assume employees are motivated by unmet needs, strong internal drives or the application of rewards which Lunenburg (2011) feels is

unrealistic. Rather he argues, people have “beliefs, perceptions and probability estimates that influence their behaviour” (p. 5).

Both Lunenburg (2011) and Lawler III and Suttle (1973) argue that expectancy theory is a more valid model for understanding human attitudes and behaviours in the workplace context. Expectancy theory evolved through the 1960’s and 1970’s and Victor Vroom, in 1964, is credited as being the first to apply expectancy theory with the workplace context successfully (Hackman & Porter, 1968; Lawler III & Suttle, 1973; Lunenburg, 2011).

The theory is most concisely defined by Lunenburg (2011) as a “cognitive process theory of motivation that is based on the idea that people believe there are relationships between the effort they put forth at work, the performance they achieve from that effort, and the rewards they receive from their effort and performance.” (p. 1). Put simply if an employee feels that their effort will lead to job performance and that job performance will lead to rewards they value then they will be motivated to extend their effort. Figure 1 below graphically represents this path as the employee attempts to reconcile expected rewards with their input efforts.

Figure 1: Basic expectancy model. Source Lunenburg (2011)



An important aspect introduced to Expectancy Theory by Vroom was the idea that effort, performance and rewards interacted in a multiplier effect (Lunenburg, 2011). Thus if any was zero then the resulting motivation was zero. A unmotivated executive can have a profound effect on corporate performance as Gerhart and Milkovich (1990)

unsurprisingly found that the higher one's position in the organisation the greater the effect on corporate performance one can have.

Lawler III and Suttle (1973) in their study concerned with expectancy theory and job behaviour analysed 18 previous studies and found consistently that "expectancy type attitude measures are significantly correlated with measures of job performance" (p. 485).

Thus by extension, it is possible that CEO's job performance would be correlated to his or her attitude towards the role. The CEO's attitude, using the expectancy theory, would be determined by his estimation of the probability of his effort being converted into corporate performance multiplied by the probability that the corporate performance would be recognised through the reward structure of his remuneration contract. The final multiplying factor is degree of personal desirability of the possible rewards.

2.2.2 Theories of Incentives

As seen with Expectancy Theory in the previous section, an important component of the probable attainment of a reward is the desirability of the incentives. Baker, Jensen, and Murphy (1988) in their well-cited article on compensation and incentives stated that the internal incentive system of any firm was one of the most important factors affecting organisational behaviour. Yet they found that this area was one of the least analysed. In their review of the literature they find that excessive extrinsic monetary incentives can be counterproductive to performance, lowering motivation by reducing the intrinsic rewards of the job. Alfie Kohn, an open critic of incentive systems, states that extrinsic rewards can be counterproductive because they create too narrow a focus, reduce risk taking, erode intrinsic value and offer nothing more than temporary compliance (Kohn, 1988, 1993).

Abowd (1990) critically raises the point that in many cases such incentive systems are merely a veil for tax avoidance for the company and the executive. Reducing the tax

burden instead of remunerating for performance appears to Abowd (1990) to be the primarily goal. If true, this could explain Lawler III and Suttle (1973) claim that very few firms adequately pay for performance in reality.

However Baker et al. (1988) argue that the lack of proper incentives leads to managers taking uneconomic decisions and the reluctance of employers to punish poor performing employees. They state that the same is true for boards that are unwilling to terminate or financially punish poor performing CEOs. The reason given by Baker et al. (1988) is that the board members bear personally a disproportionately large portion of the pecuniary costs yet receive a fraction of the pecuniary benefits of this corrective action. Overall the body of literature consulted appeared divided on the real effectiveness of incentives in modifying behaviours. Apart from those already reviewed, Gneezy, Meier, and Rey-Biel (2011) and Korman, Glickman, and Frey (1981) further raise doubts on incentive theory.

In summary the CEO, given their position, has potentially the largest single effect on corporate performance. Ensuring they are correctly motivated and properly incentivised has obvious implications on corporate performance. However the dissonance around the effectiveness of incentives and many boards' reluctance to punish poor performing CEOs is concerning.

2.2.3 Theories of Agents, Stewardship and Institutions

The principal-agent problem has been an identified problem since the turn of the twentieth century, driven largely by the separation of corporate ownership and corporate control (Frydman & Jenter, 2010). The birth of the professional managers have aided in this corporate separation. Public shareholders often don't have the knowhow or expertise to run large corporations and thus delegate their responsibilities to professional managers (Laffort & Martimort, 2002). This is reinforced by Jensen and Murphy (1990) who suggest that professional managers and organisational shareholders have very different interests and motivations.

The agency relationship can be defined as “a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent” (Jensen & Meckling, 1976, p. 310). The agency problem is aligning the interests of the agent and the principal such that the agent will extend an appropriate amount of effort in pursuit of the principal’s interests. Bebchuk and Fried (2003) found, in support of Jensen and Murphy (1990), that executives of organisations had personal goals that conflicted with that of the shareholders. Jensen and Meckling (1976) solution to divergent interests was through establishing appropriate incentives for the agent.

In addressing the agency problem, costs are incurred as principals try to remove divergence. Jensen and Meckling (1976) call these costs ‘agency costs’ and include various aspects including contracting costs, monitoring costs, compliance costs and residual divergence costs (Bebchuk, Fried, & Walker, 2002). These costs can become significant and excessive but as Fama and Jensen (1983) note, the costs to ensure full enforcement of the agency contract exceeds the benefits of capturing lost value due to divergence.

Bruce, Buck, and Main (2005) in their review of top executive remuneration in Europe argue that the dominance of the principal-agent theory in trying to explain executive pay on its own has led to a “overly narrow focus which may be unhelpful when considering cross-country differences and probably also hinders within-country analysis.” (p. 1493). The alternative they present is a woven framework comprising principal-agent, executive power, and stewardship/stakeholder theories overarched by institutional theory.

Bruce et al. (2005), along with Bebchuk et al. (2002), argue that the underlying assumptions of the principal-agent theory of ‘arms-length’ contracting and ‘self-interested opportunism’ ignore many other influential factors such as “socially-derived executive power” (p. 1495). Executive or managerial power is discussed in the following section.

Stakeholder and stewardship theories share a less cynical view of top executives and thus posit that executives would put aside their short-term self-interests and make important firm decisions in the interests of the firm's stakeholders as a whole (Bruce et al., 2005). Mitchell, Agel, and Wood (1997) tempers this by noting that the 'saliency' of the different groups of stakeholders differs depending on the organisation itself and its institutional circumstances.

It is the firm's very institutional circumstances or environment that will determine the applicability of any theory used to understand its executive remuneration argues Bruce et al. (2005). Scott (2001) supports this through the use of institutional theory to explain that executive remuneration must be socially legitimate within the firm's regulatory, normative and cognitive values.

In summary, limiting the understanding of executive pay through one theoretical lens is perhaps shortsighted. Each organisation will have its own social norms, values, culture and circumstances that will influence how it contracts, monitors and remunerates its top executives in an attempt to align interests.

2.3 Optimal Contracting and Managerial Power Approaches

The starting point of this section is the acknowledgement of the existence of an agency problem in publically traded companies as discussed in the previous sections. The reason for this is that public companies largely lack a controlling shareholder and are generally run by management with open mandates and limited direct ownership (Bebchuk et al., 2002). Thus the interests of the principal and the agent are non-convergent.

Both the optimal contracting approach and the managerial power approach use the notion that executive compensation arrangements are the mechanism by which boards can address the agency problem on behalf of the shareholders. However the two approaches differ in their execution (Bebchuk et al., 2002).

There is no perfect contract that would completely align shareholders and managers interests. The optimal contract is pursued from the motivation of reducing and minimising agency costs (including contracting costs, monitoring costs, compliance costs and residual divergence costs) while maximising shareholder wealth through an optimal set of executive incentives (Bebchuk et al., 2002). Edmans and Gabaix (2009) expands on the above by suggesting that optimal contracts must inherently be able to attract and retain talented CEOs, provide incentives for them to exert effort in pursuing shareholders' interests while minimising the overall costs of their employment.

Bebchuk et al. (2002) provide several limitations to the optimal contracting approach. Firstly it assumes an adversarial approach as the board exclusively pursues the interests of the shareholder against those of the executive. This arm's length approach they argue is not always effective given the pervasive influence of management on all aspects of pay setting, from the appointment of independent directors to the social dynamics within boards and remuneration committees. Secondly Bebchuk et al. (2002) point out neither labour market forces nor the bargaining between the board and the CEO can be relied upon to ensure an optimal contract. Thirdly, shareholders have limited mechanisms and thus power to challenge executive compensation.

In contrast to the optimal contracting Bebchuk and Fried (2003) propose that managers wield extensive power over their own compensation packages. Thus the recognition of managerial power is important, as it is a mechanism that seeks to serve managements interests and thus can distract from the optimal contract. Bebchuk et al. (2002) indicate that this managerial power allows managers to extract 'rent'. The greater the managerial power the greater the potential to extract rent. As rent increases this will lead to outrage costs and camouflaging behaviours on part of the managers (Bebchuk et al., 2002). O'Reilly and Main (2010) take their analysis a step further and discuss the ability of management to 'capture' governance bodies in the organisation and in so doing extend their power over remuneration.

Although managerial power will cause deviation from the optimal contracts, both

Bebchuk et al. (2002) and Frydman and Jenter (2010) also note that so too will weak boards and those boards that conform to norms. In addition to the above Canarella and Gasparyan (2008) find support for CEO tenure as an additional factor while Malmendier and Tate (2009) postulate that CEO status can also distort the optimal contract.

In summary the optimal contracting approach is designed to address the agency problem through a set of compensation arrangements design by the board. The managerial power approach recognises that the power of management can be used, through various mechanisms, to alter these compensation arrangements in favour of themselves. Managerial power is a useful approach in explaining excessive deviations between actual executive remuneration and the expected optimum.

2.4 Executive Remuneration

2.4.1 CEO Remuneration and Corporate Governance

Executive remuneration and corporate governance are entwined and related. The ethics and practises around executive remuneration should be function of corporate governance according to Matsumura and Shin (2005). These authors further note that executive remuneration doesn't often obtain a significant level of attention in the realms of corporate governance. Core, Holthausen, and Larcker (1999) point strongly to the importance of this sentiment when they find that CEOs earn more when governance is weak and that weak governance promotes greater agency problems.

Gevers (2012) in her assimilation on the literature surrounding corporate governance conclude that the "invisible hand" market forces proposed originally by Adam Smith are not sufficient to prevent abuse and that an opposing force, in the guise of corporate governance, is required. Allen (2005) enforces this by stating that Smith's philosophies, and its many modern iterations, are based on the assumptions of perfect markets, perfect competition and perfect symmetric information.

There is thus a very real need to ensure executive remuneration is fully embedded in

relevant corporate governance policy. This was further evident in the aftermath of the 2008 global economic crisis which was strongly linked to the incentive remuneration bonuses structured for bank executives (Crotty, 2009) as well as governance weaknesses (Conyon & He, 2011). Many have called for the re-examination of the effectiveness of pay-for-performance systems and the theories behind them (Conyon & He, 2011; Crotty, 2009). In response the Financial Services Board (FSB) comprised a set of regulations that recommend that the risk involved in achieving the corporate performance be accounted for in the remuneration scheme (Basel Committee on Banking Supervision, 2011).

Hagendorff and Vallascas (2011) further argues that it is in fact the shareholders and not the board alone that can encourage increased risk-taking behaviours of CEOs through influencing improper remuneration. Thus legislation and governance guidelines involving shareholders may not effectively manage excessive remuneration and risk-taking. This is in direct contradiction to the intentions of the 2010 Dodd Frank Act, which was born as direct response to the 2008 global economic crisis, which serves to increase and improve corporate governance structures around executive pay in the USA (Conyon & He, 2011). As Shaw (2012) notes these reforms are aggressive in that they allow for the clawing back of inappropriately awarded remuneration.

2.4.2 Corporate Governance in South Africa

Corporate governance in South Africa, unlike its legalistic and autocratic USA counterpart (namely the Sarbanes-Oxley Act and the Dodd-Frank Act), has followed a different path. The 2009 King III Report on Corporate Governance in South Africa (King III) reflects this difference through its definition of corporate governance which it sees as essentially effective and responsible leadership (IoDSA, 2009). It places corporate governance at the feet of anyone in a leadership role no matter the context. Thus King III pursues corporate governance from an ethical perspective rather than a narrow, compliance-driven “tick box” approach.

This echoed by Allen (2005) who states that corporate governance in emerging

economies should adopt a broader, more inclusive approach that considers stakeholders and not only shareholders. Given the socio-economic context of South Africa explored in Chapter One it is of value that corporate governance, and particularly its guidelines around executive remuneration, involves scrutiny from across the stakeholder groupings. This will ensure a more equitable usage and distribution of society's resources and is successfully applied in countries such as Germany, Japan and France (Allen, 2005).

The ethical stance described above is carried over into how King III deals with executive remuneration. Principle 2.25 states that "Companies should remunerate directors and executives fairly and responsibly" (IoDSA, 2013, p. 2). The King III practice recommendation expands upon this, requiring boards to set remuneration policies, aligned to the strategy of the business, that create value for the organisation over the long term. King III further requires remuneration committees to apply their minds to ensuring remuneration is linked to factors within the executive's control and that such performance-based rewards are fair and achievable. Van Zyl Smit and Nel (2010) argue that this is only possible with the strengthening of the independence and impartiality of the remuneration committee combined with the active use of voting by shareholders in the general meetings.

Bruce et al. (2005) would strongly disagree with Larcker and Tayan (2011) on the point of pay-for-performance being evident. They are quoted as saying "One striking feature of this copious literature has been the lack of consensus regarding the relationship between corporate performance and executive pay" (Bruce et al., 2005, p. 1493). Reviewing the various studies certainly doesn't provide much clarity on this topic. At best the relationship between corporate performance and executive pay can be described as weak.

As corporate governance reforms and guidelines increase and become more onerous, alongside evermore vocal shareholders and stakeholders, so too does the perceived risk that executives face over the size and certainty of their compensation. This risk faced by executives needs to be carefully balanced with the need for fair, equitable

and performance-based pay that considers the broader stakeholder groupings and adheres to the ethical considerations of King III.

In summary corporate governance in South Africa draws its identity from ethical influences rather than legalistic compliance. King III is the dominate force in this area and calls on remuneration policies to be fair, reasonable and performance-based with the compensation of executive directors in a manner that ensures such that long term value is created for the organisation as a whole.

2.4.3 CEO Remuneration and Corporate Performance

The former French President Nicolas Sarkozy, at the opening of the 40th World Economic Forum stated that “there are remuneration packages that will no longer be tolerated because they bear no relationship to merit” (Gevers, 2012). As seen in the previous section, corporate governance policies in South Africa attempt to ensure a reasonable link between remuneration and performance. This section examines the current state of this link between CEO remuneration and corporate performance.

Larcker and Tayan (2011) believe that at the core of the debate around executive remuneration is the myth that executives are systematically overpaid and that pay-for-performance is non-existent. They note that the median US CEO was paid \$1 600 000 in 2008 and state this is not excessive given the responsibilities of the role. Studies in South Africa find average annual CEO remuneration to exist between R6 200 000 and R7 700 000 depending on industry (Bradley, 2012; Nel, 2012; Shaw, 2012).

Bruce et al. (2005) disagree with Larcker and Tayan (2011) on the point of pay-for-performance being evident. They are quoted as saying “One striking feature of this copious literature has been the lack of consensus regarding the relationship between corporate performance and executive pay” (Bruce et al., 2005, p. 1493). Thus Bruce et al. (2005) make the argument that there is no link between executive pay and corporate performance. Drawing on several other sources they in particular point to a statement made by Barkema and Gomez-Mejia (1998) that there has been a “failure to

identify a robust relationship between top management compensation and firm performance” (p. 135).

However, reviewing the various studies using pay-for-performance sensitivities does point to a link of some description existing. Abowd (1990), Zhou (2000), Ozkan (2011), De Wet (2013), Mobbs (2013) and many others find an association while Show and Zhang (2010) find that executive pay was more sensitive to positive firm performance than negative firm performance. Tosi, Werner, Katz, and Gomez-Mejia (2000) in their meta-analysis of CEO pay studies find that firm performance on average only accounted for 5% of CEO pay variance.

In summary, besides the misgivings offered by Bruce et al. (2005) there does appear to be a link between CEO pay and corporate performance. However on balance the link is most likely a weak one.

2.4.4 Defining Pay-for-Performance Measures

With the pressures from stakeholders, shareholders and the growth in corporate governance reforms around executive remuneration, boards and remuneration committees face the tough task of ensuring CEO compensation is fair and linked to long term strategy of the business. Part of this puzzle is defining the right set of metrics to measure both executive remuneration and corporate performance. This section aims to define these aspects.

21st Century Pay Solutions (2010) provides the following remuneration definitions:

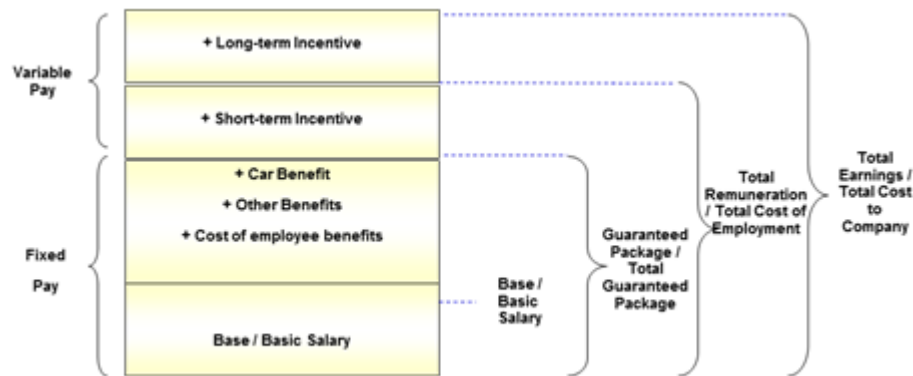
- “Fixed pay” means all components of remuneration that are guaranteed, including base salary and benefits that typically accrue on a monthly basis (pension, medical, and car allowance among others). Fixed pay is also known as “total guaranteed package”;
- “Remuneration mix” refers to ratio of fixed pay to variable pay
- “Incentive pay” means all components of remuneration that are variable and accrue to an individual based on achievement of satisfactory measures

of performance. Incentive pay is made up of short-term incentives and long-term incentives, and is also known as “variable pay”;

- “Short-term incentive” means all cash based payments that accrue to an individual based on company performance for a 12 month period;
- “Long-term incentive” means all cash and equity based awards that accrue to an individual based on company performance over a period longer than 12 months;
- “Total remuneration” means fixed pay plus the short-term incentive, and is also known as “total cost of employment”;
- “Total earnings” means fixed pay plus incentive pay (short- and long-term), and is also known as “total cost to company”

The above definitions can be graphically represented as per the figure below. This reflects how each of the various components of remuneration fits together, reinforcing the definitions provided above.

Figure 2: Remuneration components Source: 21st Century Pay Solutions (2010)



Two broad areas of corporate performance are defined for the purpose of this study. Accounting-based measures draw their influence from data obtained from the financial reporting mechanisms. Examples include return on assets, profit after tax and the like. Market-based measures draw their influence from the economic value added by the corporation as well as the share market. This includes items such share price growth, headline earnings per share and EBITDA. Essentially the market or economic-based measures are removed from the accounting policies and treatments used within

the business.

The following accounting-based corporate performance metrics are defined:

- “Profit after Tax” (PAT) is the profit remaining after the income tax expense has been deducted. This is reflected in the firm’s statement of comprehensive income as profit for the period (Graham & Winfield, 2007).
- “Return on Equity” (ROE) is defined by Hartley, Firer, and Ford (2011) as the profit attributable to shareholders in a given period expressed as a percentage of equity. As Firer, Ross, Westerfield, and Jordan (2012) point out because profit is a summation over a year equity should be handled as average equity.

$$ROE = \frac{\text{Net Profit After Tax}}{(\text{Total Equity}_{t-1} + \text{Total Equity}_t) / 2}$$

The following economic or market-based performance metrics are defined:

- “Headline Earnings per Share” (HEPS) is a Johannesburg Stock Exchange (JSE) requirement for listed companies and is not part of any accounting standard. It is calculated in much the same way as earnings per share except the earnings have been adjusted to remove items of income or expense that relate to the capital base of the firm (Graham & Winfield, 2007). Thus it attempts to reflect the earnings derived from trading or operating activities.
- “Share Price” (SP) is the year on year change in the share price as recorded at the firm’s financial year-end.
- “Earnings before Interest, Tax, Depreciation and Amortisation” (EBITDA) is found by adding back any depreciation and amortisation expenses to the published operating (or trading) profit in the statement of comprehensive income. EBITDA is seen as a reflection of operating cash flows as it excludes non-operating costs (tax and interest) and non-cash costs (depreciation and amortisation) (Graham & Winfield, 2007).

The above set of corporate performance metrics defined for this study was based on those used in previous pay-for-performance studies conducted. This is touched upon in the section to follow however it was deemed important to use a recognised basket of measures for this study. This would assist in properly placing this work within the

existing body of knowledge.

2.4.5 Pay-for-Performance Studies

A majority of the pay for performance studies completed previously consider accounting-based measures of corporate performance (Core et al., 1999; Hölmstrom, 1979; Wang & Xiao, 2011; Zhou, 2000). There is a growing call for research to go beyond these traditional measures and include both economic and market-based metrics especially in developing markets (Conyon & He, 2011; Ghosh, 2006; Wang & Xiao, 2011).

Looking within the South African context Bradley (2012) finds that although there has been an increase in the disclosure requirements for executive pay yet the volume of research based on this source of information has been limited when compared to other markets. That said work done by the likes of De Wet (2013) and Theunissen and Oberholzer (2013) are recent studies. De Wet (2013), although considering economic and accounting-based measures, doesn't consider market-based measures while Theunissen and Oberholzer (2013) only compare a handful of accounting-based measures.

When considering other developing countries, Conyon and He (2011) studied CEO pay in China and found that mainly fixed salaries were used to compensate CEOs and that accounting-based metrics dominated. They also found a distinct lack of share incentives indicating that CEOs were remunerated for labour rather than returns, possibly due to cultural unease with firm ownership. Rashid (2013) studied executive pay in Bangladesh and found that, as with Conyon and He (2011), that fixed salaried pay dominated and that performance based pay was unnecessary given the goal congruence between family owners and family managers reducing the principal-agent effect. Rashid (2013) found evidence of firms moving from accounting-based measures to market-based measures of performance in determining CEO pay.

Interestingly the Bangladesh findings above contrasts with Ghosh (2006) study of

Indian executives, where firms were also mostly family-owned, where accounting-based performance measures dominated and no significance was found with market-based measures.

Overall South African firms appear to present in a similar manner to above studies, in that there appears to be a strong reliance on accounting-based measures with only isolated sectors (e.g. financial sector) moving beyond accounting-based measures (De Wet, 2013; Shaw, 2012; Van Blerck, 2012). However there is a noted lack of published literature documenting this as Theunissen and Oberholzer (2013) only considered accounting-based measures and although De Wet (2013) did consider a mixed basket of performance measures, his is the only study of its type.

Studies documenting CEO pay-for-performance within developed countries include work done by Conyon et al. (2011), Ozkan (2011), Zhou (2000) and Bugeja et al. (2012) covering countries such as America (USA), United Kingdom (UK), Canada and Australia. The overriding theme is that compensation is tied relatively strongly to company performance with the USA being the most elastic.

A vast majority of the studies consulted note the positive effect of firm size on CEO pay (Baker & Hall, 1998; Tosi et al., 2000; Zhou, 2000). Given the pervasive nature of this topic many recent studies in fact control for firm size (Cooper, Gulen, & Rau, 2010; De Wet, 2013). Tosi et al. (2000) estimate that firm size can account for more than 40% of the variance in total CEO compensation.

In summary there are noticeable differences, between countries and their level of development, in how CEO's are measured and remunerated for performance. South Africa is developing economy (Department of Economic and Social Affairs-Statistics Division, 2012) and given its reliance on accounting-based measures of CEO performance, fits in well with trends exhibited in other developing countries.

2.5 Dynamics Facing Minority CEOs

2.5.1 Minority Status as a Disadvantage

The odds are stacked against PDIs (or ethnic minorities in the USA and European studies) both advancing to the top levels of executive management and receiving similar remuneration to their white male executive colleagues (Hill et al., 2014; Kulich et al., 2011; Park & Westphal, 2013; Selody, 2010). Kulich et al. (2011) echo this insisting that their minority status is indeed an invisible barrier preventing them from advancing up the corporate ladder and is often accompanied by inequitable compensation.

Those individuals who do break through into top executive management often required more impressive education and managerial experience than their white colleagues (Hillman et al., 2002; Zweigenhaft & Domhoff, 2006) and now face several further obstacles. Park and Westphal (2013) in their study investigating the social discrimination faced by many minority CEO's, note that minority CEO's are subject to both out-group biases and negative forms of envy attached to their status as CEO's. These above components comprise what is known as intergroup relations theory. According to this theory social discrimination involves the differential treatment of individuals due to in-group/out-group distinctions based on observable or easily discoverable characteristics instead of merit-based capacities and capabilities of the individual (Hewstone, Rubin, & Willis, 2002; Scheepers, Spears, Doosje, & Manstead, 2006).

McDonald and Westphal (2013) looked at the effects of mentoring on first-time minority executives and found that minority executives received comparatively less mentoring from their incumbent colleagues. At some level this can be seen as support for the work done by Park and Westphal (2013) described above in that out-group biases could prevent inclusionary behaviours like mentoring.

Park and Westphal (2013) further shows that white male CEO's make negative and internal attributions about the poor performance of minority CEO-lead firms. These

perceptions and attributions made by white male CEO's are often reported in the media leading to reputational damage on the part of the minority CEO.

The "Matthew effect" is a concept in the literature that describes the tendency of high-status actors to derive greater rewards from similar accomplishments than low-status actors (Merton, 1968; Park & Westphal, 2013). Within the realm of corporate executives Wade, Porac, Pollock, and Graffin (2006) and M. Jensen, Kim, and Kim (2011) find support for the "inverse Matthew effect" whereby high-status leaders are held more accountable for poor performance. In the Park and Westphal (2013) study they show that minority CEOs suffer the "inverse Matthew effect" while white CEOs enjoy positive returns from their status. Essentially minority CEO's are more likely to be personally attributed for poor firm performance. If this is indeed the case then by extension similar perception biases could directly affect how boards evaluate the performance of their minority or PDI CEOs for the purposes of performance remuneration.

2.5.2 Minority Status as an Advantage

Despite the disadvantages discussed above, representation of minority CEO's is increasing. Zweigenhaft and Domhoff (2011) note that between 2000 and 2011 the number of minority CEO's leading Fortune 500 companies doubled and McDonald and Westphal (2013) find recent progress in the representation of women and minorities on corporate boards. The literature suggests this is largely due to mounting stakeholder pressure for greater representation of both minorities and women in the top levels of corporate management (Hillman et al., 2002; Hillman et al., 2007; McDonald & Westphal, 2013).

Hill et al. (2014) add a further dimension through the course of their study. They investigate whether a CEO's minority status is in fact a disadvantage or a source of benefit. They interestingly contrast the many negative forces of intergroup relations theory against an economic resource-based argument, and find in favour of the latter. Within their study of 1 678 US firms over a 12 year period they found that the rarity

and inimitability of the CEO's minority status overall benefited them with regard to higher levels of compensation but came at the cost of higher levels of job turnover.

Hill et al. (2014) findings are rightly supported by a growing body of knowledge that is finding value in diversity. Richard, Murthi, and Ismail (2007) note "the most valuable natural resources in the world are not oil, diamond, or even gold; it is the diverse knowledge, abilities, and skills that are immediately available from cultural diversity" (p. 1213). They found, through a Tobin's q test, a positive linear relationship between firm-level racial diversity and firm performance. In a recent study by Dezsö and Ross (2012) of female executives showed that gender diversity brought informational and social diversity to firms that enriched management behaviours and motivated women in lower levels. Building on this point it is reasonable to assume that these same conclusions can be applied to racial diversity in the work place.

Further to the above Brammer, Millington, and Pavelin (2007) and Miller and del Carmen Triana (2009) argue that executive diversity not only leads to a better understanding of diverse and differing target markets but also assists in broadening executive decision-making. By extension, a better understanding of one's target markets supported by more balanced decision-making should reveal itself through improved corporate performance.

However direct evidence of the proportion of minority representation on corporate performance shows a decidedly mixed set of results. Some studies show a positive firm-performance relationship (Anderson, Reeb, Upadhyay, & Zhao, 2011) while others produce either negative (Adams & Ferreira, 2009) or neutral (Carter, D'Souza, Simkins, & Simpson, 2010) results. Miller and del Carmen Triana (2009) look beyond simple financial performance and indicate that the effect of minorities is more subtle and provides positive effects for firm reputation and corporate social performance.

2.6 Summary of the Literature Review

The apparent unhappiness in civil society regarding the perceived excessive executive remuneration has been growing alongside tightening corporate governance guidelines on the topic. Remuneration needs to be shown to be performance related and in the best interests of the firm over the long term. The links between corporate performance and executive pay have been historically largely weak. The overreliance on accounting-based measures of corporate performance has compounded the situation further, especially in South Africa. There is a palatable need to look at the more apt market and economic-based measures instead.

The majority of the CEO race and remuneration studies have been conducted in the United States as discussed in the literature review above. There is a noticeable lack of research regarding the state of black CEO remuneration in the South African context. Given South Africa's employment discrimination policies of the past there is certainly a need to review how black CEO's are remunerated for performance in South Africa against their white counterparts. Such a study becomes relevant as more black individuals rise to the position of CEO's.

The next chapter will see the formulation of the research propositions following the literature reviewed in this chapter combined with the context presented in Chapter One. The formulation of these propositions will provide direction for the remainder of this study and a direct input into the type of research methodology required.

Chapter 3: Research Propositions

3.1 Introduction to the Research Propositions

The literature review, presented in the previous section, showed the divide in the body of knowledge regarding the value of a CEO's minority status on their remuneration. The primary objective of the study is assist in understanding which side of the divide South Africa sits. Thus the study wishes to explore the effects of the race of the CEO on the level and performance sensitivity of the remuneration they receive, if any.

Thus the research objectives presented in Chapter One can now be restated into the following research propositions.

3.2 Research Propositions

As noted in the literature review many of the studies done on pay-for-performance sensitivities within developing economies show a strong reliance on accounting-based measures for determining CEO performance compensation. Given that South Africa is considered a developing country (Department of Economic and Social Affairs-Statistics Division, 2012) and the numerous studies done here indicate that accounting-based measures will be the dominate determinate of CEO performance pay. Thus the following proposition is defined:

1. Both within the black and white CEO samples, remuneration will be more closely correlated with accounting-based measures than with economic or market-based measures of corporate performance.

The literature also painted a disparate picture regarding CEO remuneration based on race. The decidedly mixed findings on this topic saw some studies revealing that minority CEOs, or PDI CEO's in the South African context, received less pay while other studies showed a greater pay given the rarity of their minority status. The common point presented is that race will have an effect on CEO remuneration. Given the active legislated policies to promote transformation in South Africa and the relative scarcity

of PDI CEOs one would expect their minority status to be value creating. Thus the following two propositions are defined:

2. There will be significant difference in the pay-for-performance sensitivities between black and white CEOs samples.
3. There will be a significant difference in the structure of CEO remuneration between black and white CEO's.

3.3 Summary of Research Propositions

In summary, the research propositions indicate that there is an expected difference in the pay level and degree of performance sensitivity between black and white CEOs. This difference is in favour of the black CEOs whose minority/PDI status is expected to be of benefit, given South Africa's transformation policies, to the respective black CEO. Their minority/PDI status, given their scarcity, will favour their negotiation position while contracting their employment with boards. This negotiation power could be used to increase the level of pay while reducing the performance sensitivity, and thus earnings risk, involved in their remuneration.

South African firms, as with other developing country firms, are expected to remunerate CEO performance based on the lower maturity measures of corporate performance instead of more mature based measures as seen in developed countries. This is expected to be independent of race.

The next chapter will define closely the needed research methodology best able to provide answers for the propositions presented in this chapter. Defining the right research methodology will provide a robust framework to embed this study within the current body of knowledge presented in Chapter Two.

Chapter 4: Research Methodology

4.1 Introduction

The previous chapter detailed the core research propositions under investigation and this chapter will provide clarification on how the research will be conducted. This began with a robust definition of the research design philosophy followed with the motivation thereof.

Careful attention was paid to the selection of the required metrics for testing. The needed sample was defined through the unit of analysis, population and sampling methods. A process of data collection and analysis was then designed while at each stage possible limitations to the research method were noted.

4.2 Research Design

The literature presented shows that a difference between black and white CEO remuneration can be expected. This will be tested through the analysis of a set of pay-performance sensitivities taken for separate samples of black and white CEOs working for JSE listed companies. The use of pay-performance sensitivities for analysing CEO remuneration was well documented throughout the literature. The set of pay-performance sensitivity metrics will include accounting-based, market or economic-based measures of corporate performance as suggested in the literature. A full listing of the variables to be used was defined in Chapter Two.

Given the audited reporting requirements of JSE listed companies all the information required to complete the study is verified and publically available through published financial results and various secondary data sources. The pay-performance sensitivity metrics chosen are all easily calculated from these standardised sources and will be used in a robust regression analysis. Thus the study using secondary data is both desktop and archival in nature. Saunders and Lewis (2011) define archival research as the analysis of past administrative documents as the primary source of data and point to the longitudinal benefit of being able to track changes over a period of time.

Blumberg, Cooper, and Schindler (2008) assist in providing a further classification of the approach in that the study is also intended to be *ex-post facto* in approach. Meaning that, merely the characteristics of the relationships between the variables will be described as the study has no control over manipulating the independent variables as in the case of an experimental study. Intuitively this is correct as the study cannot alter the corporate performance of JSE listed companies in order to deepen understanding of the effects on executive pay, the dependent variable.

The characteristics of the study contained in the above description leads this study to be classified as quantitative. Muijs (2010) provide a simple definition in that any study where numerical data is collected and mathematical analysis is done is a quantitative study. Given that all the variables in the study are numeric and that statistical analysis is required to define the characteristics of their relationships draws the conclusion that a quantitative method of types is best.

The above research design framework was deemed meaningful for the following reasons:

- The use of a quantitative approach provided the required platform for the robust statistical regression analysis needed to test the propositions.
- The use of a descriptive approach was selected given that the literature suggested that the constructs of corporate performance and executive pay related to each other as an independent and dependent variables respectively.
- The longitudinal nature of this study provided the opportunity to observe both trends and outliers or unusual observations.
- The existence of the relevant, audited and standardised data spoke to the archival nature of the study and eliminated the need for the generation of new data.

In summary, the study is designed to be quantitative, descriptive, and longitudinal in nature in order to determine the relationship between CEO pay and performance. Data will be sourced from valid, existing secondary data sources making the study archival and desktop in execution. All data will be handled in an *ex-post facto* manner.

4.3 Unit of Analysis and Population

The unit of analysis selected for this study was the individual. The study was looking at the CEO pay for performance relationship and whether companies remunerate differently for the performance they receive based on the race of the CEO. Thus it makes sense that the unit of analysis was the individual and not the organisation given that race is linked to the individual.

The population of the study was black and white CEOs of listed companies having served in this role for longer than two years within the last ten-year period. The horizon was limited to ten years in order to ensure relevance. Tenure of at least two years is selected enable sufficient data was able to be collected for each CEO studied.

The reason for limiting the study to CEOs of listed companies was that they are obligated, subject to particular disclosure regulations and requirements, to release both remuneration and financial performance information for public record. There exist listed entities that are not headed by a CEO, but rather function as a trust and managed by a board (Shaw, 2012). These entities would not be able to assist in answering the research questions and thus they were excluded from the population.

Saunders and Lewis (2011) note that the population is the entire set (of units of analysis) that can assist in answering the research propositions. It is also the group from which the sample will be drawn. Thus black and white CEOs, meeting the tenure requirements and leading JSE listed companies, is considered a suitable population from which to draw a sample to answer the propositions around the variables of race, executive remuneration and corporate performance.

4.4 Sampling and Sample Size

Two samples were drawn for the study, one represented black CEOs and the other represented white CEOs. South Africa, and thus CEOs of JSE-listed companies who have served in this position for at least three years in the last ten years, was selected as the sampling frame from which to draw the two samples.

As stated the first sample represented black CEOs and comprised all valid black CEOs within the sampling frame due to their low representation. The table below contains the 19 black CEOs identified for this study.

Table 1: Black CEO Sample Group

| Name | Organisation | Market Cap. ('000) | Tenure (yrs) |
|------------------|----------------------------------|-------------------------------|-------------------------|
| Bogoshi PJ | GIJIMA GROUP LTD | R 113 098 | 6 |
| Brey MA | BRIMSTONE INVESTMENT CORPORATION | R 701 113 | 8 |
| Dabengwa RSN | MTN GROUP LIMITED | R 445 439 982 | 10 |
| Jardine WR | AVENG LTD | R 9 541 764 | 4 |
| Mahomed AS | DATACENTRIX HOLDINGS LIMITED | R 800 536 | 8 |
| Matlare PB | TIGER BRANDS LIMITED | R 58 869 095 | 6 |
| Mbindwane DB | PLATFIELDS LIMITED | | 2 |
| Moholi NT | TELKOM SA SOC LTD | R 32 106 327 | 2 |
| Mophatlane LB | BUSINESS CONNEXION GROUP LIMITED | R 2 612 072 | 10 |
| Morobe M | KAGISO MEDIA LIMITED | | 7 |
| Nelson HA | CORONATION FUND MANAGERS LIMITED | R 34 045 947 | 6 |
| Ngebulana SM | REBOSIS PROPERTY FUND LIMITED | R 4 410 325 | 3 |
| Nkosi SA | EXXARO RESOURCES LIMITED | R 52 965 283 | 7 |
| Nxasana SE | FIRSTRAND LIMITED | R 242 149 596 | 8 |
| Nyembezi-Heita N | ARCELORMITTAL SA LTD | R 17 116 882 | 6 |
| Phiri SD | ROYAL BAFOKENG PLATINUM LTD | R 14 297 907 | 4 |
| Shabalala S | ADAPTIT HOLDINGS LTD | R 813 943 | 6 |
| Teke MS | OPTIMUM COAL HOLDINGS LIMITED | | 2 |
| Tlelai TA | THE DON GROUP LIMITED | R 17 669 | 5 |

Current black CEO's excluded from the sample included Tshabalala joint CEO at Standard Bank Group and Mabuza CEO of Tsogo Sun Holdings. This was due to neither

of these CEO's meeting the required tenure in their current positions.

The second sample comprised 45 white CEOs randomly selected from the sampling frame using simple random sampling. Thus all white CEO's had the same probability of being selected into this sample and thus the sample was able to statistically represent the white CEO population (Saunders & Lewis, 2011). The table below contains the white CEO sample.

Table 2: White CEO Sample Group

| Name | Organisation | Market Cap. ('000) | Tenure (yrs) |
|---------------------|----------------------------------|-------------------------------|-------------------------|
| Badminton NP | PICK N PAY STORES LIMITED | R 28 060 019 | 5 |
| Baglione M | ASTRAPAK LIMITED | R 906 731 | 8 |
| Berry RC | SENTULA MINING LTD | R 158 371 | 7 |
| Bisschoff DF | CONVERGENET HOLDINGS LTD | R 120 126 | 6 |
| Bohbot A | EOH HOLDINGS LTD | R 11 100 039 | 7 |
| Boje AR | WESCOAL HOLDINGS LIMITED | R 347 620 | 8 |
| Briggs GP | HARMONY GOLD MINING COMPANY | R 12 726 103 | 6 |
| Brown DH | IMPALA PLATINUM HOLDINGS LIMITED | R 69 101 020 | 10 |
| Clark GJ | ILLOVO SUGAR LIMITED | R 12 891 241 | 10 |
| Cooper P | RMB HOLDINGS LIMITED | R 79 478 891 | 10 |
| Cory CJ | ASSORE LIMITED | R 43 068 760 | 8 |
| Crafford-Lazarus NR | SEPHAKU HOLDINGS LIMITED | R 1 237 135 | 4 |
| Edwards GN | A E C I LIMITED | R 15 145 279 | 7 |
| Elliot SP | MERAFE RESOURCES LIMITED | R 3 419 652 | 8 |
| Enslin J | LEWIS GROUP LIMITED | R 5 802 089 | 5 |
| Flemming CMD | LIFE HEALTHCARE GROUP HOLDINGS | R 49 161 034 | 4 |
| Goldstone A | INVICTA HOLDINGS LIMITED | R 8 312 164 | 10 |
| Griffith CI | KUMBA IRON ORE LIMITED | R 108 704 016 | 5 |
| Hanekom WA | PIONEER FOOD GROUP LIMITED | R 26 412 370 | 6 |
| Harvey MJ | CLICKS GROUP LIMITED | R 16 912 126 | 7 |
| Hill WS | EQSTRA HOLDINGS LIMITED | R 2 558 709 | 6 |
| Hodgson KG | HOLDSPORT LIMITED | R 1 738 954 | 3 |
| Humphris RB | OMNIA HOLDINGS LIMITED | R 15 645 672 | 9 |
| Jacob RG | HULAMIN LIMITED | R 2 361 821 | 4 |
| Joselowitz SB | MIX TELEMATICS LTD | R 3 154 850 | 6 |

| | | | |
|-----------------|-----------------------------------|---------------|----|
| Kahanovitz S | LITHA HEALTHCARE GROUP LTD | R 1 287 159 | 3 |
| Loock CT | METAIR INVESTMENTS LIMITED | R 6 874 962 | 8 |
| Loubser RM | JSE LTD | R 9 209 026 | 5 |
| Maree JH | STANDARD BANK GROUP LTD | R 225 756 520 | 9 |
| Mark MS | TRUWORTHS INTERNATIONAL LIMITED | R 32 543 201 | 10 |
| Nel EL | WILSON BAYLY HOLMES-OVCON LIMITED | R 8 765 460 | 5 |
| Nicolau NF | ANGLO AMERICAN PLAT LTD | R 127 659 314 | 5 |
| Pattison GM | MASSMART HOLDINGS LIMITED | R 27 654 172 | 9 |
| Scannell JJ | DISTELL GROUP LIMITED | R 30 115 164 | 10 |
| Schouten PCT | KAP INDUSTRIAL HLDGS LTD | R 9 853 989 | 6 |
| Schutte CE | ASTRAL FOODS LIMITED | R 6 237 877 | 8 |
| Soll GJ | CLIENTELE LIMITED | R 5 440 101 | 6 |
| Stassen R | CAPITEC BANK HOLDINGS LIMITED | R 24 235 639 | 8 |
| Strong BW | MPACT LIMITED | R 6 027 763 | 3 |
| Tromp NC | NICTUS BEPERK | R 58 980 | 5 |
| Uys PJ | VODACOM GROUP LTD | R 187 482 204 | 5 |
| Van Straaten MJ | VERIMARK HOLDINGS LTD | R 68 563 | 8 |
| Van Zyl PP | YORK TIMBER HOLDINGS LIMITED | R 990 409 | 5 |
| Venter CP | AFGRI LIMITED | R 2 651 055 | 5 |
| Wackrill GD | METROFILE HOLDINGS LIMITED | R 2 031 552 | 9 |

Certain randomly selected CEOs were excluded from the above sample given that their remuneration was declared in a foreign currency. These included Mackay (SABMiller), Monatana (Datatec), van Rooyen (Trustco Group), Wallington (Coal of Africa) and Carroll (Anglo American PLC). The decision to limit the sample to CEOs earning in Rand was taken in order to avoid any currency conversion complications.

4.5 Sample Metrics

As indicated in the research design the study was focused on the relationship between the variables namely race, corporate performance and CEO remuneration. CEO remuneration comprises several components. Whereas short-term incentives, benefits and basic pay have quantifiable values in present terms, the valuation of the long-term incentives proved difficult. Thus it was decided to exclude the long-term incentives awarded because the present value of the incentive needs to be calculated based on

the estimations of the future performance of the organisation (Core et al., 1999). Many authors, including Ozkan (2011) and Lippert and Porter (1997) have argued for its inclusion as the wealth generated through this channel can be significant. However numerous studies of this level have produced results without including long-term incentives in their CEO pay basket (Nel, 2012; Shaw, 2012; Van Blerck, 2012).

Therefore, for the consideration of this study long-term incentives will not form part of the basket of CEO pay metrics. Thus the following CEO pay metrics will be included in this study:

- Fixed pay comprising basic salary and benefits
- Short-term incentives
- Total Remuneration

Corporate performance metrics were divided into accounting-based measures, market-based measures and economic-based measures. The reason for the division of the metrics into these groups was driven by the literature which suggested that CEO pay-for-performance sensitivities in South Africa were largely dominated by accounting-based measures however certain industries had show growth in the other two groups. Thus the corporate performance metrics selected are:

- Accounting-based: Return on Equity (ROE) and Profit after Tax (PAT)
- Market-based: Headline Earnings per Share (HEPS) and Share Price (SP)
- Economic-based: Earnings before Interest, Tax, Depreciation and Amortisation (EBITDA)

The definition of race will be limited to the following two for the purposes of this study:

- Black
- White

4.6 Data Collection

4.6.1 Secondary Data Sources

As stated in the research design the study's archival focus required various extractions from secondary data sources. McGregor BFA database was selected given the ready availability of the needed metrics. This database collects published audited financial results of listed companies in a standard electronic format. It was expected that the McGregor BFA database would not provide complete information and in these cases individual company annual reports were used to manually obtain the relevant data. This was done to ensure a complete as possible data set for the purposes of a robust analysis.

Hofstee (2011) note that secondary data was produced for another purpose and that relevance to the current study must be checked. This was confirmed by reviewing the metrics required for the study against the data available in the McGregor BFA database. All metrics required were available and accessible. Saunders and Lewis (2011) further warn that unauthorised use of secondary data can cause harm. As the McGregor BFA database uses audited publically published financial results from JSE listed companies means that the data used for this study already sits in the public domain and thus there is no harm created through its use.

As listed companies within each sample frame are required to disclose certain regulated financial and remuneration information by law, through a set of generally accepted accounting practises, the validity of this type of secondary data is thus considered high (Nel, 2012; Shaw, 2012; Van Blerck, 2012). A concern recognised is that although the corporate financial results are prepared to specific guidelines there is room for interpretation in the application of certain accounting and reporting policies. Thus accounting policies will differ from organisation to organisation which could affect validity of direct comparisons.

4.6.2 Data Analysis

The database set, once complete and prepared, was analysed within the SPSS statistical software program. Initial descriptive statistics was performed on the database to obtain a coarse and granular picture of the main features of each of the samples drawn.

The database was tested for internal reliability using the Cronbach's Alpha test. This test verifies the internal consistency and homogeneity between the various items in a test (Salkind, 2012). Validity refers to the extent to which research method delivers on its intent (Salkind, 2012). The validity of the research was ensured through following many of the identified practises noted in the literature. The validity of the database itself was ensured through eliminating any bias during the data collection phase. Using random sampling of audited and published financial results ensure the data used is largely prepared to the same standard.

Various statistical methods were used depending on the requirements of the individual research propositions. Where correlations between two variables were being tested then a combination of regression analysis and Spearman's rank coefficient was used to draw the strength of association between the independent and dependent variables. Van Blerck (2012), through using the definition provided by Hauke and Kossowski (2011), motivated for the use of the Spearman's rank coefficient as a test of association because of its ability to describe the relationship without making any assumptions about the frequency distribution of the data. Spearman's rank coefficient further can be used for ordinal variables that are not linearly related or measured on interval scales (Hauke & Kossowski, 2011).

Thus the regression analysis and Spearman's rank coefficient were used to determine the sensitivities between executive pay (previously defined as the dependent variable) and corporate performance (independent variable) required for answering research proposition one and two.

The remuneration data was tested for normality given that the status of normality is

important in determining the required tests for answering the research propositions. The status of normality determines whether a parametric or non-parametric based test is required. The test recommended to identify the status of normality was the Shapiro-Wilk test (Pallant, 2010).

Parametric techniques make certain assumptions about the normality of the samples being tested and nature of the data. Non-parametric tests do not require such assumptions and are better suited for smaller samples (Pallant, 2010). A combination of a standard t-Test (normal/parametric) and a Mann-Whitney Test (non-normal/non-parametric) was selected in this instance as recommended by Pallant (2010, p. 204). These tests are designed to identify any differences between two independent samples (Salkind, 2012) as required for research proposition three.

To analyse the effect of race a Factorial Analysis of Variance (two-way between-group ANOVA) method was selected as a confirmation test in answering research proposition three. Reinard (2006) recommends the use of two-way ANOVA in the case of testing two independent variables against a single dependent variable. Pallant (2010) supports this by noting that two-way ANOVA has the benefit of allowing for the testing of an interaction effect between the two independent variables. In this study race and corporate performance were classified as the independent variables and executive remuneration as the dependent variable.

Remaining with research proposition three, many of the studies consulted in Chapter Two noted that the size of the company had a significant influence on executive remuneration. In order to control for the size of the company the application of an analysis of covariance (ANCOVA) test was conducted. According to Pallant (2010) ANCOVA allows for the control of an additional variable that may influence the relationship between your dependent and independent variables.

The above-identified statistical tests are summarised in the table below for clarity. To improve the robustness of the statistical analysis each statistical test was assigned a confirmation test of a different type.

Table 3: Statistical Tests per Research Proposition

| Research Proposition | Reliability Test | Normality Test | Statistical Test | Confirmation Test |
|-----------------------------|-------------------------|-----------------------|---------------------------|--------------------------|
| One | Cronbach's | Shapiro-Wilk | Spearman's Rank | Regression |
| Two | Cronbach's | Shapiro-Wilk | Spearman's Rank | Regression |
| Three | Cronbach's | Shapiro-Wilk | Indep. t-Test/ Mann-Whit. | Two-factor ANOVA |

4.7 Research Design Limitations

Every decision made in the process of defining the research design has both positive attributes and negative attributes. The positive attributes would have been discussed and presented at each decision point. The negative attributes or limitations of the research design as presented above are as follows:

- The study seeks to describe the relationship between corporate performance and CEO pay and does not account for all the other factors that could affect this relationship.
- The use of JSE listed South African companies, as the sample frame, may not fairly represent the pay-for-performance trends between black and white CEOs.
- The period under investigation may not be long enough in order to fully describe the relationship between corporate performance and CEO remuneration.
- The removal of the long-term incentives as a component of CEO pay, due to the difficulties in its present value estimations, may overlook a significant aspect of how CEO's are rewarded for their efforts and the corporate performance they deliver.
- The use of audited financial results doesn't ensure complete standardisation of

results published as accounting policies and treatments will differ from company to company, which could have a material effect.

4.8 Summary of Research Methodology

It is believed that the above research methodology will provide a robust road map for the process of addressing the research propositions. Careful consideration and motivation was provided for the key areas around the research methodology and weaknesses in the form of limitations were defined.

The next chapter will reveal the results of the methodology described in this chapter. The selected corporate performance and remuneration measures defined in this chapter will be described statistically in the upcoming results chapter along with analysis of their ability to answer the research propositions.

Chapter 5: Results

5.1 Introduction

This results chapter will firstly present a broad overview of the data through the analysis of the descriptive statistics. This will aid in understanding the data collected and used in this study. Secondly the results pertaining to the various research propositions will be presented. Interpretation and discussion of the implications of the results will be undertaken in Chapter Six.

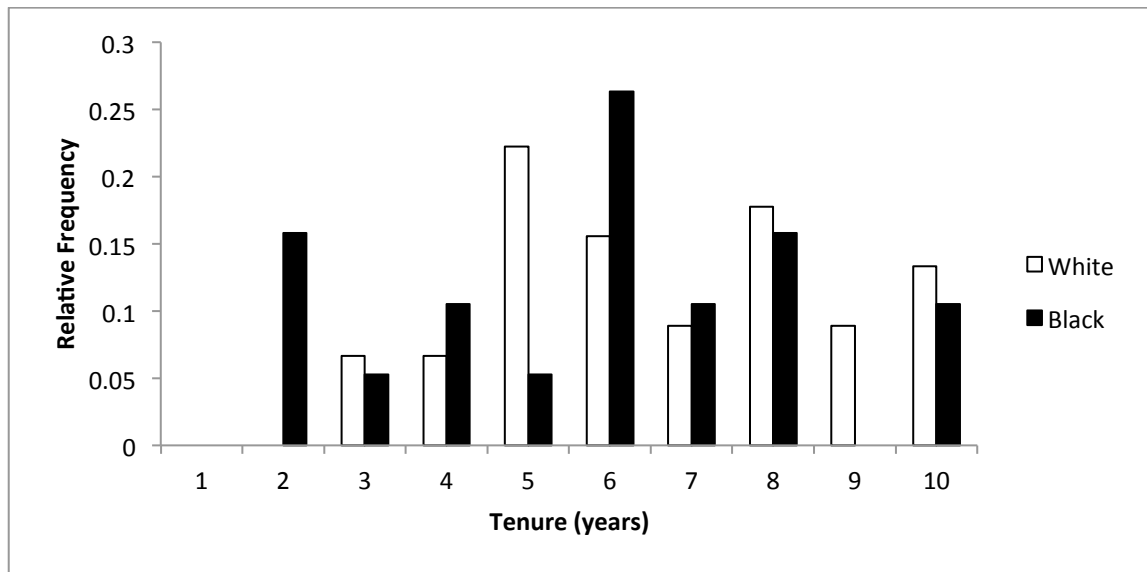
5.2 Description of Sample

The black CEO sample contained 19 CEOs meeting the selection criteria defined in the research methodology chapter of this study. Their median tenure over the year period (2004 to 2013) studied was 6 years (average of 5.78 years with a standard deviation of 2.49 years) and they command an organisation of median market capitalisation of R4 410 325 000 (average of R48 billion with a standard deviation of R111 billion). The large variance in market deviation is caused by the inclusion of Dabengwa (MTN) and Nxasana (Firststrand) in the sample.

The white CEO sample included 45 randomly selected CEOs meeting the requirements and represented a median tenure of 6 years (average of 6.69 years with a standard deviation of 2.11 years). The median market capitalisation of the organisations represented in the white sample was R8 765 460 000 (average of R27 billion with a standard deviation of R48 billion).

Although the median CEO tenure of each sample group may appear similar, a histogram of CEO tenures reveals that approximately half (48.89%) of the white CEO sample had tenure longer than 7 years. The proportion of black CEOs having similar service accounted for approximately a third (36.84%) of the group. Thus it appears that a greater portion of white CEOs have longer tenure than black CEOs.

Figure 3: Sample Description - CEO Tenure by Race



Each grouping of corporate performance measures is now discussed in the sections that follow once the reliability and validity of the dataset is proven.

5.3 Measures of Corporate Performance

The descriptive statistics of the various components of corporate performance are presented in this section. The previously identified components of corporate performance were accounting-based and market-based measures.

The data behind the corporate performance measures was tested for reliability using the Cronbach's Alpha test. The results are presented in the table below. Pallant (2010) indicates that the Cronbach's alpha coefficients should be greater than 0.7 as a minimum and coefficients greater than 0.8 show strong reliability.

Table 4: Reliability Test Results - Corporate Performance

| ROE | PAT | HEPS | SP | EBITDA |
|-------|-------|-------|-------|--------|
| 0.882 | 0.945 | 0.905 | 0.961 | 0.983 |

Reviewing the Cronbach's alpha coefficients in the above table shows that the reliability of the data behind each of the corporate performance measures can be

considered strong and thus available for analysis.

Table 5: Descriptive Statistics - Total Asset Value - Company Sample

| Measure | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|------------------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| Count (n) | 46 | 47 | 48 | 51 | 56 | 58 | 60 | 64 | 63 | 63 |
| Min | 3 | 0 | 2 | 17 | 23 | 0 | 197 | 38 | 20 | 7 |
| Max | 613 | 752 | 965 | 1 174 | 1 492 | 1 328 | 1 324 | 1 477 | 1 528 | 1 670 |
| Mean | 28 | 32 | 39 | 46 | 52 | 47 | 47 | 47 | 50 | 56 |
| Std Dev. | 108 | 127 | 160 | 190 | 224 | 201 | 200 | 202 | 213 | 234 |
| Median | 2 | 2 | 3 | 4 | 5 | 5 | 6 | 6 | 7 | 7 |

Note: Above figures shown in billions (000 000 000) except Count

A proxy of the relative growth in the size of the organisations is obtained through the analysis of the total assets listed on each company's balance sheet. The mean total asset value doubled from R28 008 725 000 in 2004 to R56 332 723 000 in 2013 representing an 8.5% annual increase. The figure below shows the impact of the recession years on the meant total asset value of companies in the sample.

Figure 4: Mean and Median Total Assets per Year



The large gap between the mean and the median is due to the presence of significant outliers. This is also evident through the large quantum of the standard deviation in

this case and the maximum total assets being up to 30 times the mean. In such cases Salkind (2012) recommends the use of the median as better measure of the central tendency of the data set. The median total asset value saw an annual growth rate of 13% across the period 2004 to 2013. The global recession can also be seen in the median total assets where the average growth rate from 2008 to 2010 was only 3% per year. In 2013 the median total asset value of the companies in the sample was below R8 000 000 000.

5.3.1 Accounting-based Performance Measures

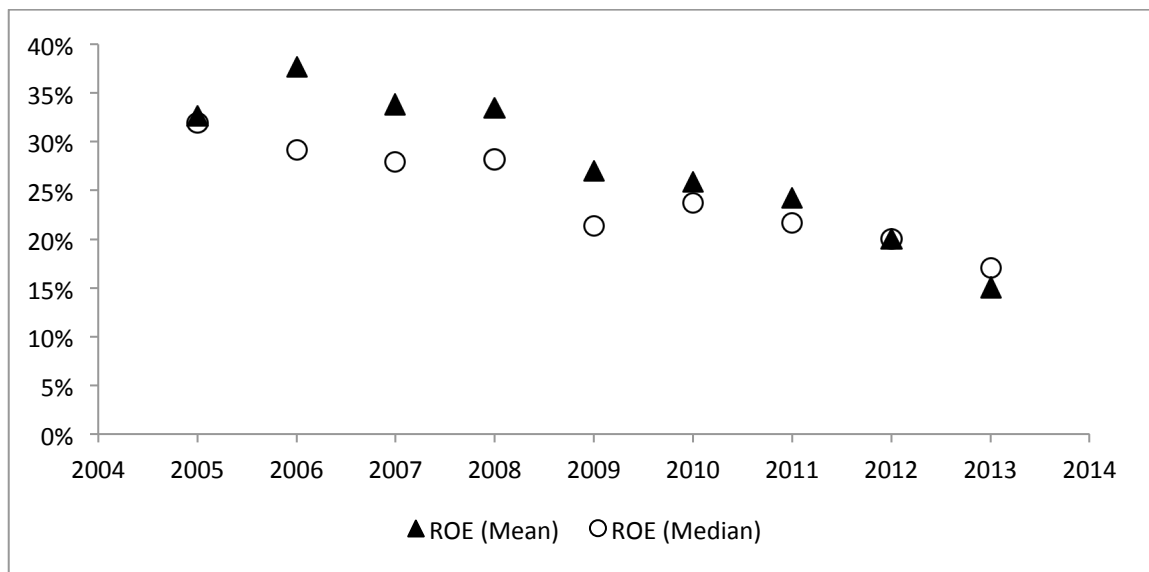
The accounting-based performance measures defined for this study were the ROE and PAT values. Each measure is presented separately below.

Table 6: Descriptive Statistics - ROE Values - Company Sample

| Measure | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| Count (n) | 46 | 45 | 48 | 51 | 56 | 57 | 60 | 64 | 63 |
| Min | -15.3% | -9.4% | -33.2% | -4.8% | -19.8% | -19.4% | -74.0% | -43.3% | -117.2% |
| Max | 103.7% | 243.2% | 246.8% | 203.5% | 128.6% | 166.7% | 164.7% | 114.9% | 120.8% |
| Mean | 32.7% | 37.6% | 33.9% | 33.5% | 27.0% | 25.9% | 24.3% | 20.0% | 15.1% |
| Std Dev. | 24.7% | 40.4% | 38.0% | 33.0% | 27.1% | 25.3% | 28.9% | 26.4% | 31.7% |
| Median | 32.0% | 29.2% | 27.9% | 28.2% | 21.3% | 23.7% | 21.7% | 20.0% | 17.0% |

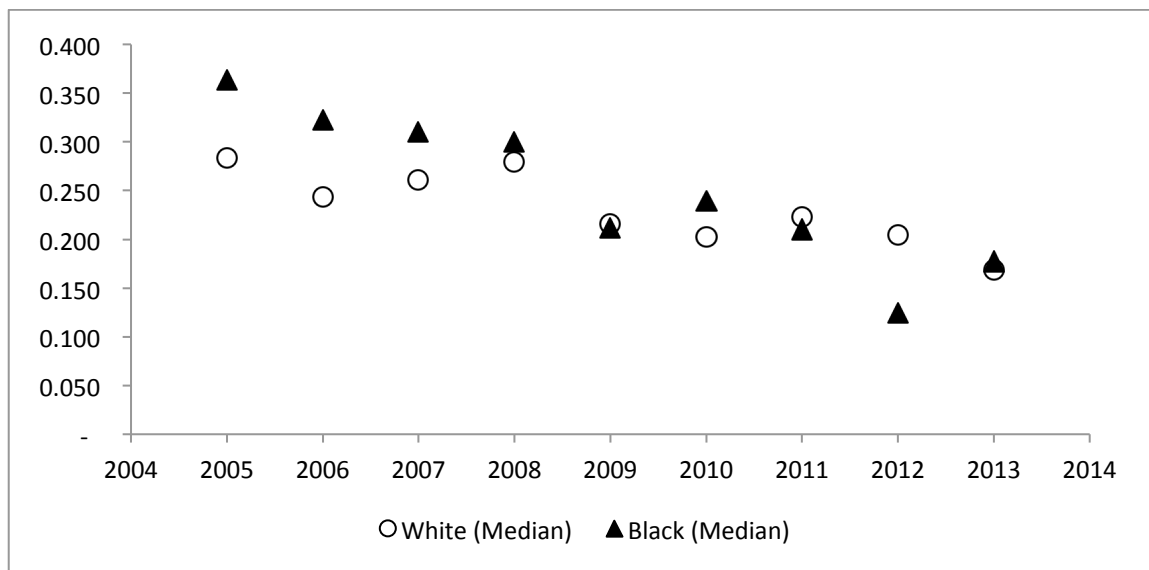
The ROE for the company sample showed similar declines in both the mean and median values of 7.45% and 6.10% per year respectively. Thus the return seen by equity holders has reduced during the period of observation.

Figure 5: Mean and Median ROE Values per Year



When considering the ROE data above divided by race the figure below is the result. It represents the median ROE values per race per year. This is done to monitor the movement in this value over time to see if there are any noticeable trends or differences. Given the same sample size of black-headed companies pre-2009 only growth rates post-2009 will be given.

Figure 6: Median ROE Values per Year per Race



Post-2009 ROE for black-headed organisations within the sample saw a decrease of

2.94% per year for this period. White-headed organisations also registered a negative trend in their ROE growth of -1.84% over the same post-2009 period.

PAT values within the company sample, similar to the total assets values presented earlier, shows a large difference between the mean and median values. Thus only the median values will be considered for analysis as discussed above given that disruptive outliers are removed in this method.

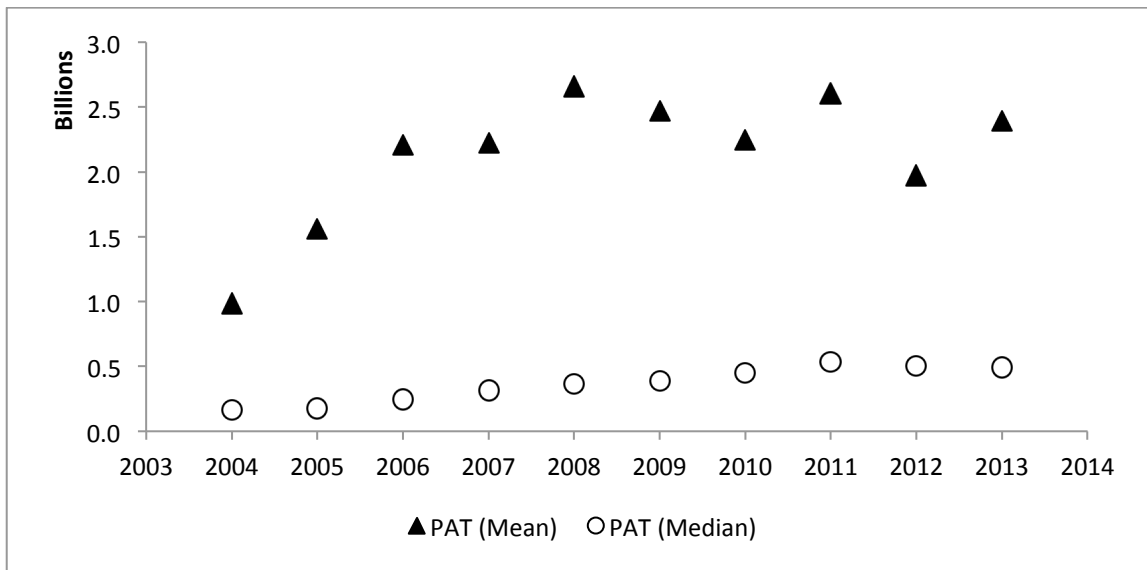
Table 7: Descriptive Statistics - PAT Values - Company Sample

| Measure | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Count (n) | 46 | 45 | 48 | 51 | 56 | 57 | 60 | 64 | 63 | 46 |
| Min | -1 348 | -3 013 | -416 | 2 | -108 | -678 | -186 | -283 | -10 301 | -2 416 |
| Max | 8 763 | 13 606 | 18 836 | 17 759 | 23 069 | 41 542 | 21 050 | 27 270 | 26 274 | 33 341 |
| Mean | 985 | 1 565 | 2 211 | 2 225 | 2 658 | 2 474 | 2 245 | 2 608 | 1 974 | 2 393 |
| Std Dev. | 2 096 | 3 301 | 4 548 | 4 357 | 5 368 | 6 421 | 4 622 | 5 881 | 5 576 | 6 063 |
| Median | 159 | 178 | 245 | 312 | 361 | 387 | 452 | 530 | 502 | 491 |

Note: Above figures shown in millions (000 000) except Count

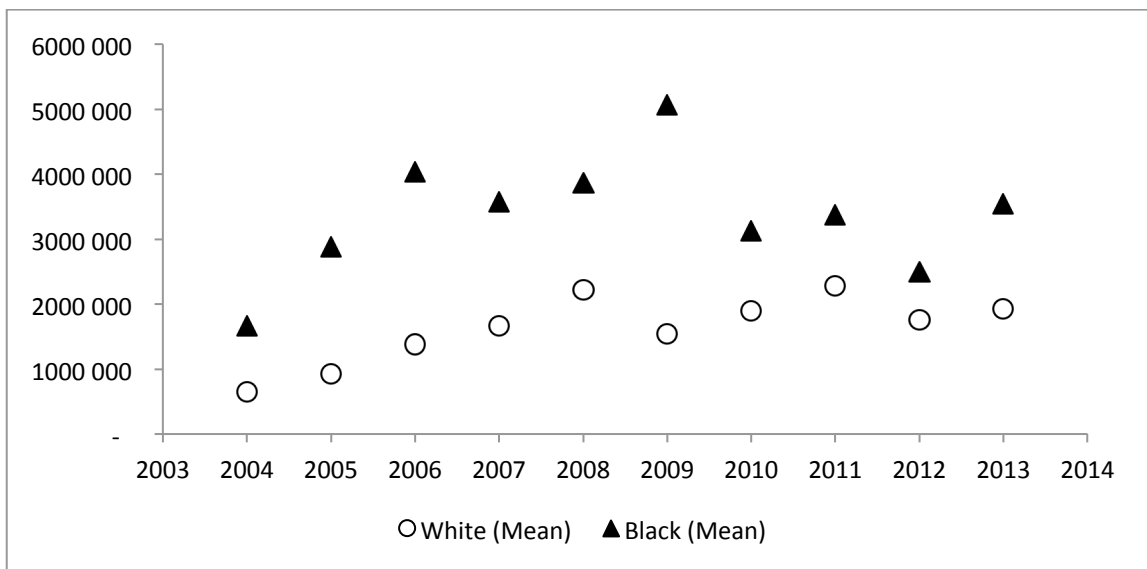
The median PAT rose from R159 289 000 to R491 464 000 over the ten year period representing a growth of 11.93% per year. The peak median PAT value was in 2011 at R530 967 000. Despite the growth in PAT year on year ROE has seen a decline over the same period. This could be explained by a general change in operating efficiencies, asset efficiencies or leverage.

Figure 7: Mean and Median PAT Values per Year



Reorganising the above figure to reflect the mean PAT per year per race results in the figure to follow. Post-2009 both black-headed and white-headed companies have seen flat annual growth (1.27% and 0.81% respectively) in their PAT values.

Figure 8: Mean PAT Value per Year per Race



That concluded the descriptive statistics relating to the accounting-based measures of corporate performance.

5.3.2 Market or Economic-based Performance Measures

The market-based performance measures defined for this study were EBITDA, HEPS and the percent movement in the SP. Each measure is presented separately below.

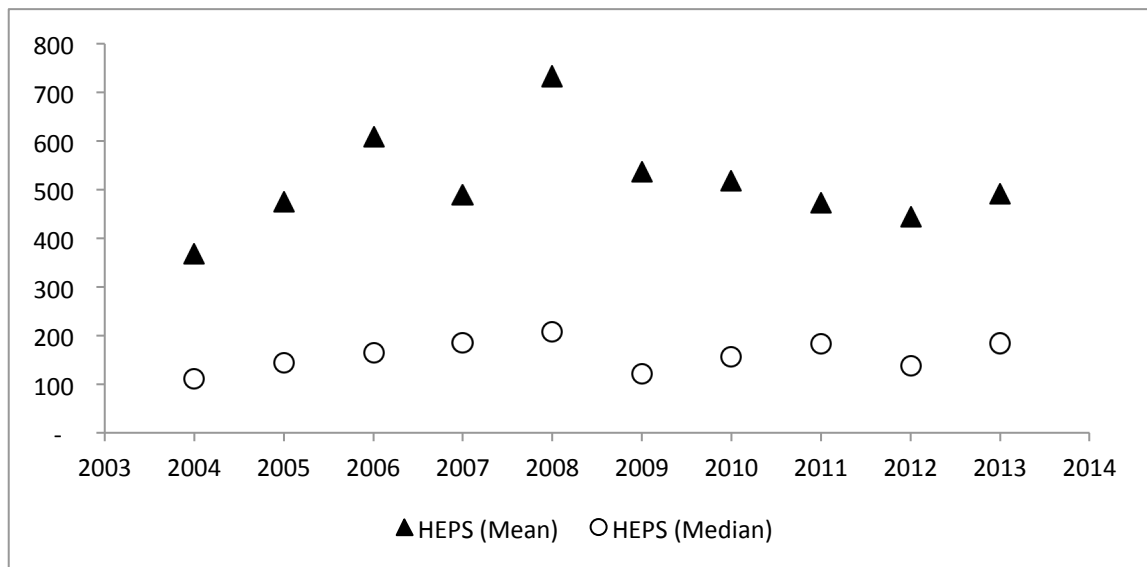
Table 8: Descriptive Statistics - HEPS Values - Company Sample

| Measure | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|------------------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|
| Count (n) | 45 | 45 | 47 | 50 | 55 | 57 | 59 | 63 | 62 | 62 |
| Min | -308 | -408 | -269 | 2 | -8 | -254 | -63 | -217 | -562 | -56 |
| Max | 3 966 | 4 325 | 6 006 | 5 239 | 11 362 | 13 772 | 6 243 | 5 313 | 3 797 | 4 808 |
| Mean | 368 | 476 | 609 | 489 | 732 | 537 | 519 | 473 | 443 | 492 |
| Std Dev. | 740 | 845 | 1 240 | 876 | 1 714 | 1 838 | 1 045 | 834 | 746 | 819 |
| Median | 110 | 145 | 165 | 185 | 208 | 122 | 156 | 183 | 138 | 184 |

Note: Above figures shown in cents except Count

The median HEPS increased by 5% per year from 110c in 2004 to 184c by 2013. The mean HEPS as seen in the figure below shows far more variability than that of the median especially from 2006 to 2009. The highest median HEPS value (208c) was seen in 2008 and was not surpassed post recession.

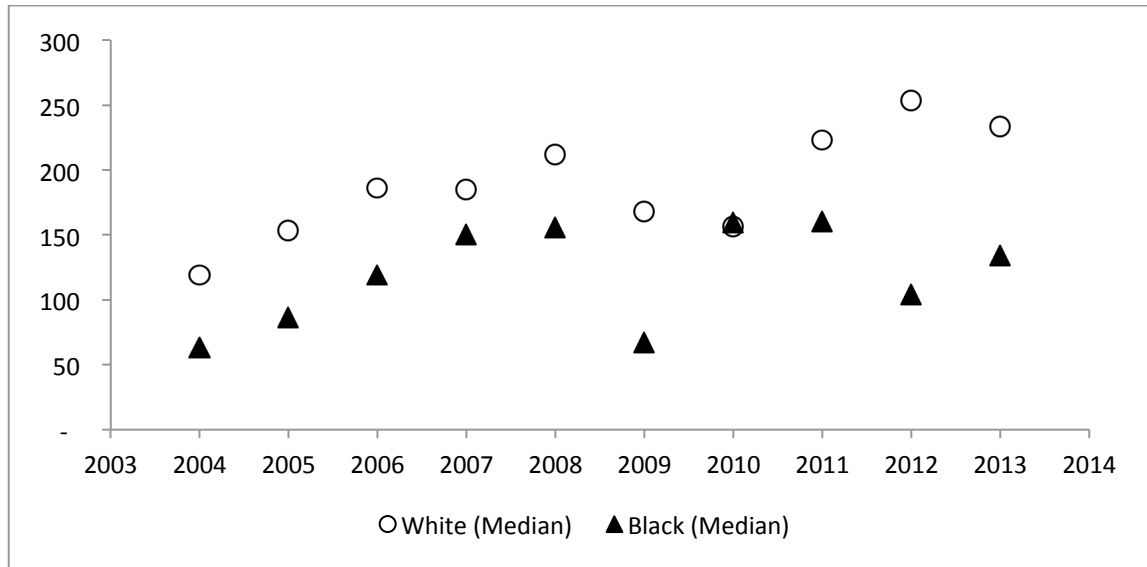
Figure 9: Mean and Median HEPS Values per Year



The figure below represents the HEPS per year per race. Post-2009 the growth rate of

this measure per year has -1.71% and 4.08% for black-headed and white-headed companies respectively.

Figure 10: Median HEPS Values per Year per Race



The descriptive statistics for the percentage change or movement in the SP year on year is presented below. This is the rate of change of the value of shares from one year to the next.

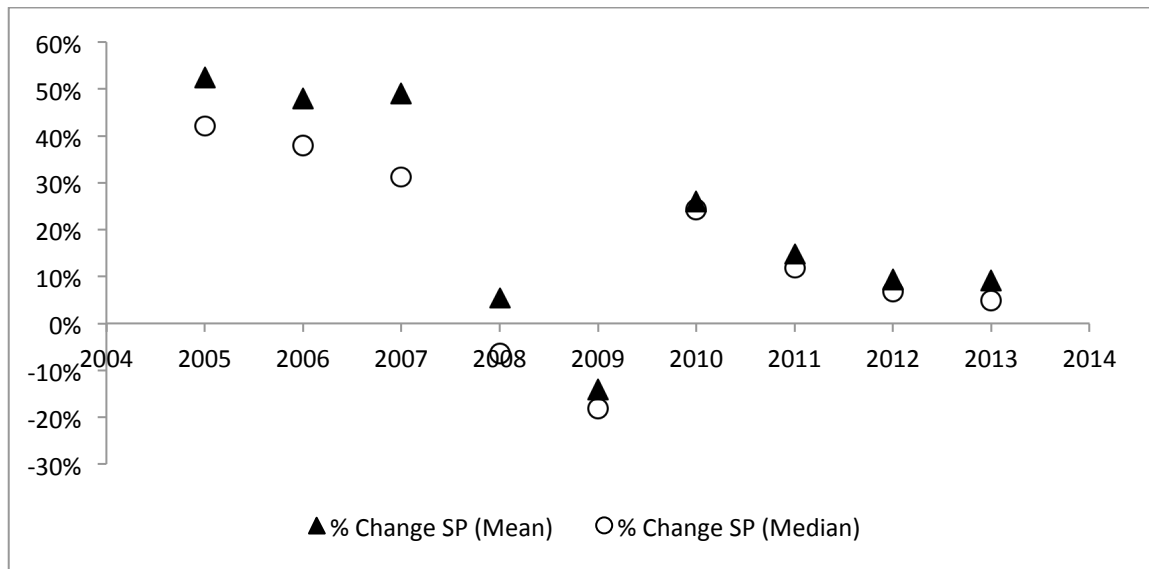
Table 9: Descriptive Statistics - Movement in SP Values - Company Sample

| Measure | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Count (n) | 43 | 43 | 45 | 49 | 53 | 54 | 58 | 60 | 60 |
| Min | -28.3% | -24.1% | -93.0% | -70.3% | -60.9% | -70.5% | -67.1% | -38.0% | -75.9% |
| Max | 249.2% | 356.5% | 571.4% | 166.0% | 105.1% | 155.6% | 136.2% | 83.3% | 134.5% |
| Mean | 52.4% | 48.1% | 49.1% | 5.4% | -14.1% | 26.0% | 14.9% | 9.4% | 9.0% |
| Std Dev. | 52.9% | 59.2% | 95.7% | 41.0% | 31.0% | 46.1% | 31.3% | 28.4% | 37.7% |
| Median | 42.1% | 37.8% | 31.1% | -6.3% | -18.1% | 24.3% | 11.8% | 6.8% | 4.8% |

The median and mean changes in SP are aligned and clearly reflect the impact of the recession over the 2007 to 2010 period. Pre 2008 share price values within this sample were increasing 40% to 50% year on year. Post 2010 the rate of growth in the value of shares has been far more subdued. For the period the median change in the rate of

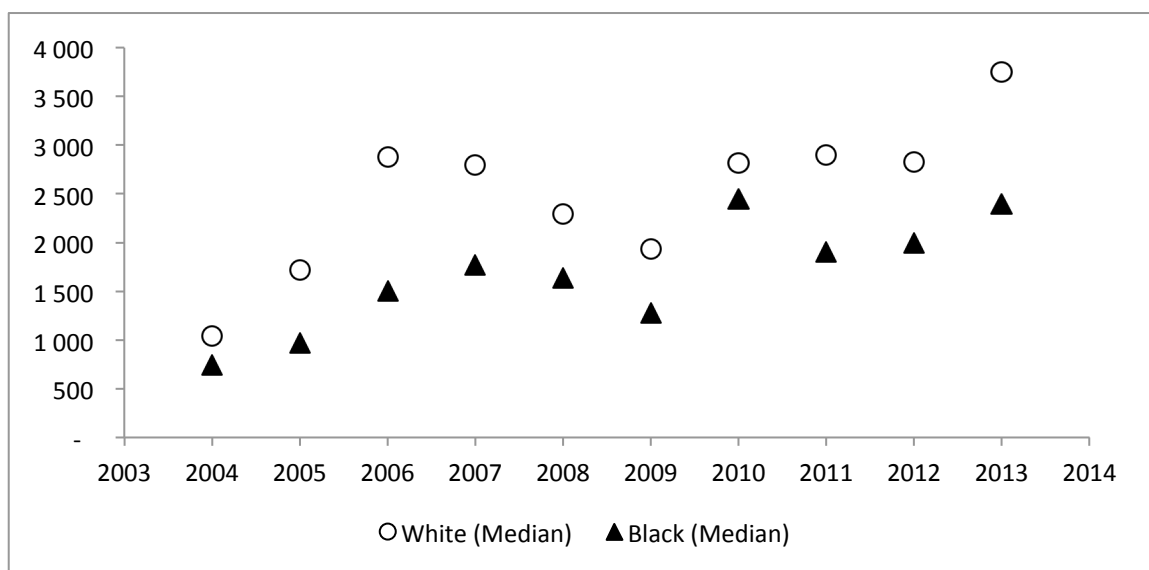
growth of the SP was -19.53%. Reviewing the absolute value of the SP (not present in the table above) over the total period saw an annual average appreciation of 13.57%.

Figure 11: Mean and Median Movements in SP Values per Year



When considering the above data on SP broken down per year per race it is visible from the figure below that white-headed companies in the sample have grown at a faster rate (2.90% per year post-2009) than compared to black-headed companies (-0.20%) for the same period.

Figure 12: Median SP Value per Year per Race



EBITDA can be considered an economic-based measure of corporate performance. This is because it is a proxy for the value generated by the operations of the business, given that financing, tax and non-cash expense effects are removed.

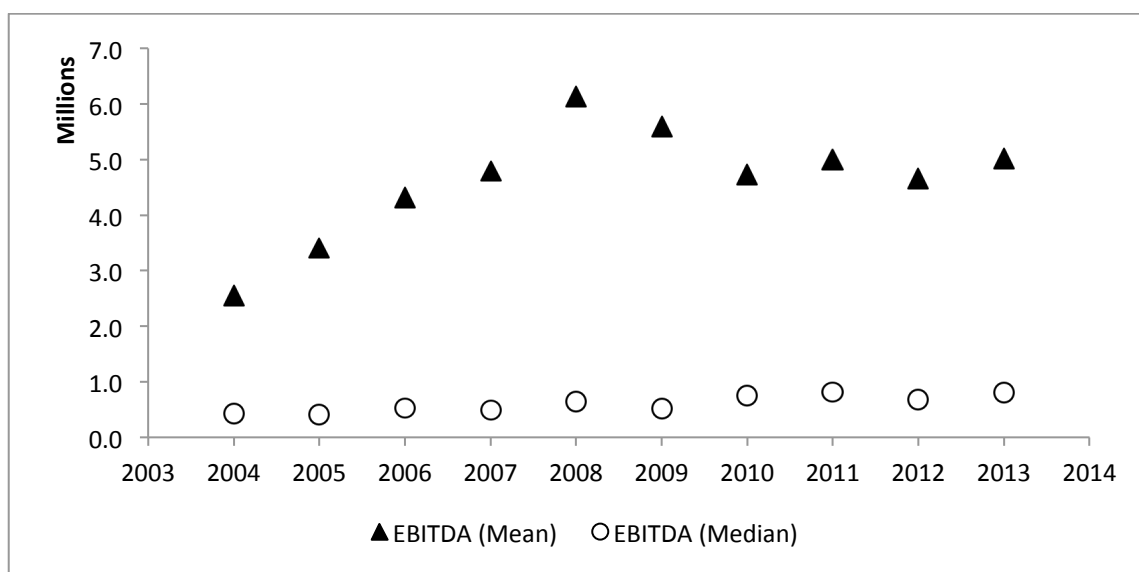
Table 10: Descriptive Statistics - EBITDA Values - Company Sample

| Measure | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Count (n) | 46 | 46 | 48 | 51 | 56 | 57 | 60 | 64 | 63 | 63 |
| Min | -602 | -2 645 | -568 | -588 | -363 | -499 | -971 | -1 560 | -2 846 | 4 067 |
| Max | 36 482 | 40 846 | 53 769 | 64 445 | 93 551 | 71 082 | 55 443 | 59 679 | 69 361 | 67 705 |
| Mean | 2 554 | 3 411 | 4 312 | 4 788 | 6 135 | 5 593 | 4 728 | 4 993 | 4 666 | 5 016 |
| Std Dev. | 6 724 | 8 320 | 10 168 | 11 922 | 15 787 | 14 314 | 11 316 | 12 518 | 13 018 | 13 462 |
| Median | 426 | 408 | 521 | 494 | 643 | 512 | 740 | 811 | 672 | 801 |

Note: Above figures shown in millions (000 000) except Count

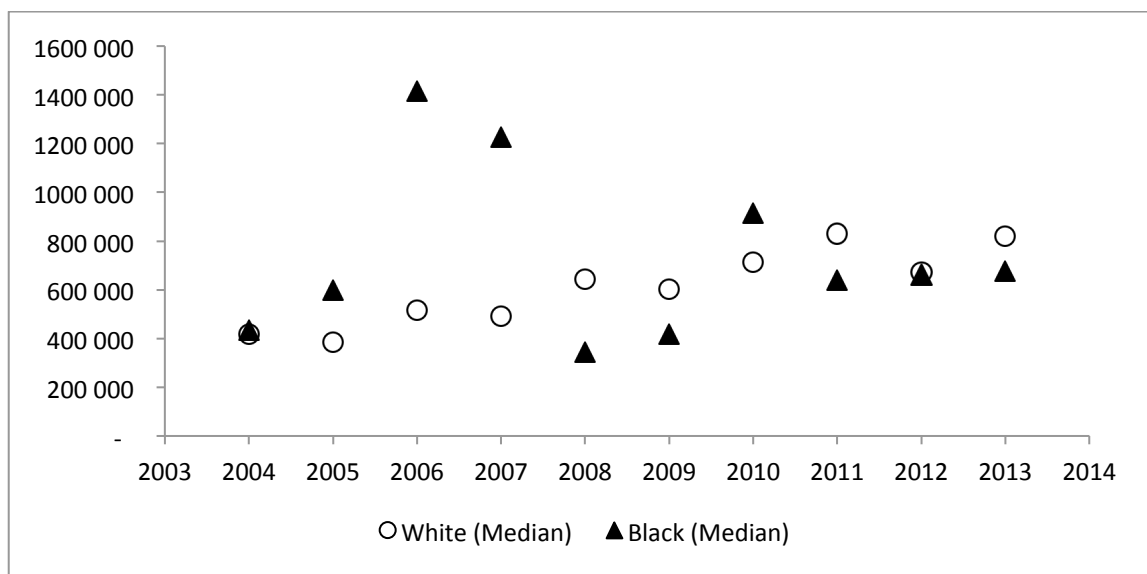
Given the large standard deviation evident in this data set of EBITDA values requires that the median is only considered for analysis. The median EBITDA value rose from R426 414 000 in 2004 by an annual average rate of 6.51% to R801 454 000 by 2013. EBITDA values, as with PAT, for this sample peaked in 2011.

Figure 13: Mean and Median EBITDA Values per Year



The above figure shows the progression of both the mean and median EBITDA over the period of the study. As with many of the other measures of corporate performance the effects of the global recession are evident. The figure following displays the median EBITDA values per year by race. The variability seen pre-2009 may be attributed to the small sample size of black-headed companies in the sample. Post-2009 the absolute median values of EBITDA have been growing per year by 1.49% for white-headed companies and -3.01% for black-headed companies.

Figure 14: Median EBITDA Values per Year by Race



5.4 Measures of Executive Remuneration

The descriptive statistics presented below cannot be used to infer remuneration characteristics of the population of CEOs. The reason for this is the small sample size once the sample of CEOs studied is divided into each year, especially prior to 2008. Three components of executive pay are presented below beginning with the fixed pay attributable to each sample.

Table 11: Reliability Test Results - Remuneration

| Fixed Pay | Short-Term Incentives | Total Remuneration |
|-----------|-----------------------|--------------------|
| 0.882 | 0.945 | 0.905 |

The Cronbach's alpha coefficients of the reliability test are all greater than 0.8 and thus the reliability of the dataset of executive remuneration used can be considered strong and available for analysis.

The Shairo-Wilk test was conducted on the remuneration data as a test for normality. This is required for determining the required tests (parametric or non-parametric) needed to draw results for the various propositions being tested.

Table 12: Normality Test Results - Fixed Pay

| | Measure | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|--------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Black | W Value | - | - | - | 0.766 | 0.938 | 0.958 | 0.948 | 0.947 | 0.895 | 0.927 |
| | p-Value | - | - | - | 0.018 | 0.468 | 0.685 | 0.452 | 0.383 | 0.048 | 0.218 |
| | Alpha | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 |
| | Normal | - | - | - | no | yes | yes | yes | yes | no | yes |
| White | W Value | 0.865 | 0.841 | 0.836 | 0.829 | 0.871 | 0.925 | 0.907 | 0.921 | 0.941 | 0.945 |
| | p-Value | 0.170 | 0.033 | 0.004 | 0.001 | 0.001 | 0.012 | 0.002 | 0.004 | 0.025 | 0.074 |
| | Alpha | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 |
| | Normal | yes | no | no | no | no | no | no | no | no | yes |

It is evident from the surrounding tables that the appearance of normality differs from year to year across all three measures of executive pay studied.

Table 13: Normality Test Results - Short-term Incentives

| | Measure | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|--------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Black | W Value | - | - | - | 0.691 | 0.809 | 0.922 | 0.838 | 0.712 | 0.649 | 0.581 |
| | p-Value | - | - | - | 0.003 | 0.012 | 0.236 | 0.009 | 0.000 | 0.000 | 0.000 |
| | Alpha | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 |
| | Normal | - | - | - | no | no | yes | no | no | no | no |
| White | W Value | 0.809 | 0.702 | 0.755 | 0.719 | 0.706 | 0.702 | 0.815 | 0.838 | 0.774 | 0.765 |
| | p-Value | 0.050 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Alpha | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 |
| | Normal | yes | no | no | no | no | no | no | no | no | no |

Thus in answering research propositions a mixture of parametric and non-parametric tests will be required as defined in the research methodology. The normality test failed on the black CEO sample for the years 2004 to 2006 given the small sample sizes for these years.

Table 14: Normality Test Results - Total Remuneration

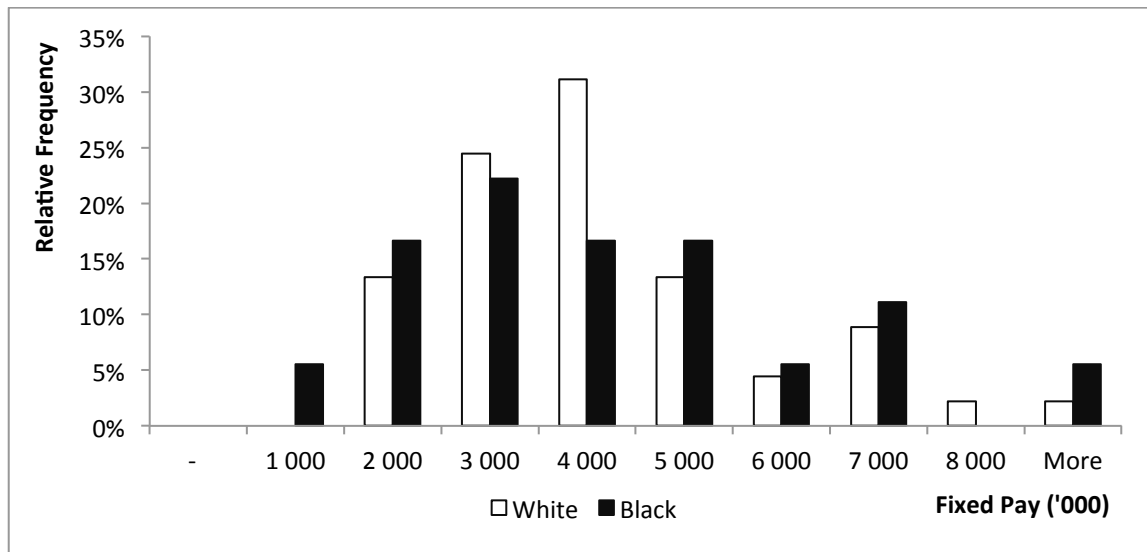
| | Measure | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|--------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Black | W Value | - | - | - | 0.776 | 0.878 | 0.978 | 0.973 | 0.798 | 0.796 | 0.798 |
| | p-Value | - | - | - | 0.024 | 0.084 | 0.963 | 0.884 | 0.001 | 0.001 | 0.003 |
| | Alpha | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 |
| | Normal | - | - | - | no | yes | yes | yes | no | no | no |
| White | W Value | 0.838 | 0.734 | 0.795 | 0.771 | 0.804 | 0.847 | 0.904 | 0.883 | 0.855 | 0.868 |
| | p-Value | 0.095 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | 0.002 | 0.000 | 0.000 | 0.001 |
| | Alpha | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 |
| | Normal | yes | no | no | no | no | no | no | no | no | no |

The descriptive statistics of each component of executive pay will be presented in the sections that follow.

5.4.1 Fixed Pay

The histogram below shows the relative frequency distribution for the black and white CEO samples. Most black CEOs earn R3 000 000 to R3 999 000 while most white CEOs earn between R5 000 000 and R5 999 000. In the tail above R6 000 000 there are relatively more black CEOs than white.

Figure 15: Descriptive Statistics - Histogram of Fixed Pay - 2011



The median fixed pay of the black sample increased from R2 833 000 in 2008 to R4 204 000 which represented an average increase of 17.2% per year. The annual percentage increase seen in the mean fixed pay reflects an increase of 12.6%.

Table 15: Descriptive Statistics - Fixed Pay - Black Sample

| Measure | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|------------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| Count (n) | 2 | 2 | 5 | 7 | 12 | 14 | 16 | 18 | 18 | 16 |
| Min | 1 235 | 1 211 | 1 145 | 1 459 | 431 | 684 | 748 | 806 | 855 | 710 |
| Max | 2 129 | 2 916 | 4 000 | 4 186 | 4 620 | 5 198 | 5 868 | 8 036 | 10 083 | 12 677 |
| Mean | 1 682 | 2 064 | 2 293 | 2 561 | 2 717 | 2 980 | 3 251 | 3 588 | 4 294 | 4 799 |
| Std Dev. | 632 | 1 206 | 1 381 | 1 279 | 1 420 | 1 444 | 1 577 | 2 006 | 2 768 | 3 189 |
| Median | 1 682 | 2 064 | 1 476 | 1 756 | 2 833 | 3 029 | 3 123 | 3 161 | 3 538 | 4 204 |

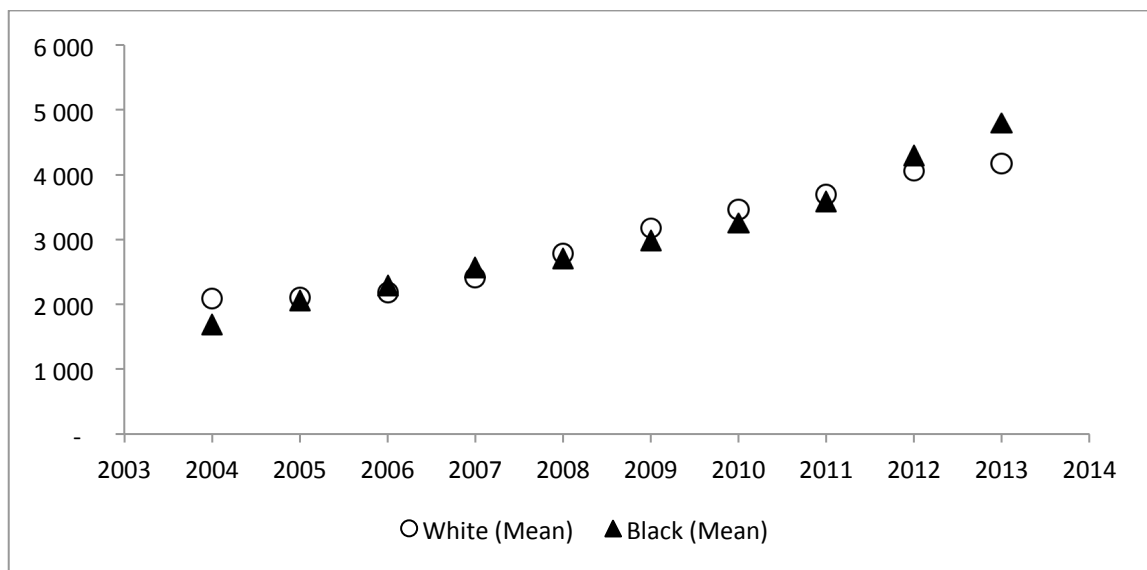
The median fixed pay of the white sample increased from R2 506 000 in 2008 to R4 003 000 which represented an average increase of 11.6% per year. This lags the increases experienced by black CEOs over the same period. In 2010 black CEO mean fixed pay underperformed white CEO by 6.0% however this was reversed to a 14.8% premium by 2013.

Table 16: Descriptive Statistics - Fixed Pay - White Sample

| Measure | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Count (n) | 7 | 11 | 19 | 24 | 33 | 39 | 43 | 45 | 44 | 36 |
| Min | 885 | 947 | 009 | 252 | 285 | 242 | 1 223 | 1 266 | 992 | 798 |
| Max | 4 106 | 4 331 | 5 118 | 5 197 | 6 318 | 7 104 | 7 624 | 8 030 | 9 196 | 9 943 |
| Mean | 2 089 | 2 102 | 2 183 | 2 416 | 2 787 | 3 174 | 3 459 | 3 687 | 4 054 | 4 180 |
| Std Dev. | 1 147 | 1 019 | 1 020 | 1 017 | 1 288 | 1 377 | 1 628 | 1 637 | 2 012 | 1 984 |
| Median | 1 528 | 1 786 | 2 066 | 2 080 | 2 506 | 2 840 | 3 200 | 3 470 | 3 741 | 4 003 |

Representing the above data graphically on the state of the two samples' fixed pay when presented graphically shows the stronger growth in black CEO fixed pay seen (in both the median and mean values) in the period 2011 to 2013.

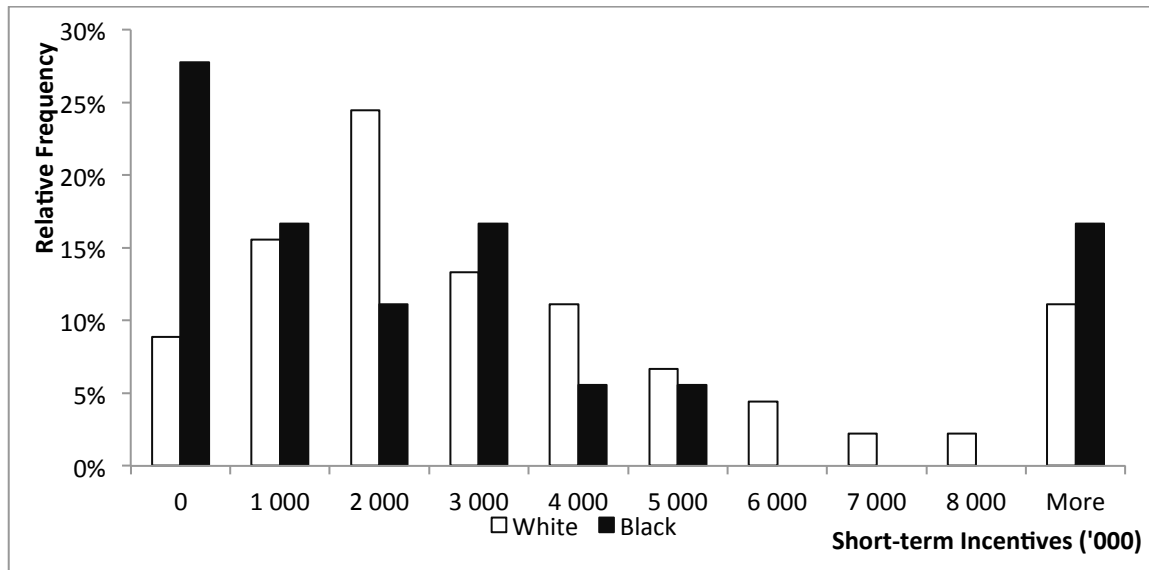
Figure 16: Mean CEO Fixed Pay per Sample



5.4.2 Short Term Incentives

The descriptive analysis of the data of the short-term incentives awarded to black CEOs is shown below. The histogram shows that most black CEOs (28%) in 2011 didn't receive any form of short-term incentive.

Figure 17: Descriptive Statistics - Histogram of Short-term Incentives - 2011



However relatively more (17% versus 11%) black CEOs received an incentive greater than R8 000 000. Most white CEOs were rewarded an incentive between R2 000 000 and R2 999 000. The mean incentive paid to black CEO's was R2 241 000 in 2008, which increased by 4.6% per annum to R3 053 000 in 2013. The maximum short-term incentive paid was R18 1000 000 in 2013 which is more than double that paid in 2010.

Table 17: Descriptive Statistics - Short-Term Incentives - Black Sample

| Measure | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|-----------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| Count (n) | 2 | 2 | 5 | 7 | 12 | 14 | 16 | 18 | 18 | 16 |
| Min | 521 | 587 | 521 | 432 | - | - | - | - | - | - |
| Max | 2 625 | 5 361 | 3 737 | 9 000 | 8 100 | 6 555 | 8 741 | 14 007 | 15 000 | 18 100 |
| Mean | 1 573 | 2 974 | 2 038 | 2 475 | 2 241 | 2 186 | 2 272 | 3 132 | 3 309 | 3 053 |
| Std Dev. | 1 488 | 3 376 | 1 412 | 3 014 | 2 584 | 1 877 | 2 330 | 4 447 | 4 903 | 5 640 |
| Median | 1 573 | 2 974 | 1 763 | 1 332 | 1 388 | 1 852 | 1 605 | 1 921 | 1 984 | 691 |

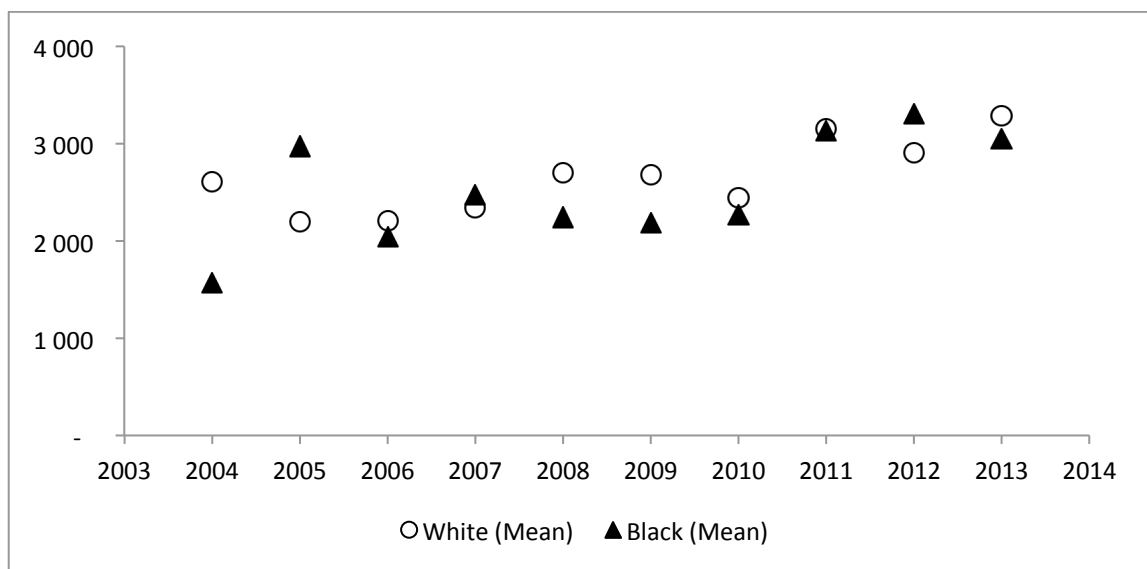
White CEOs saw an increase of 6.7% per annum over the 2008 to 2013 period in their mean short-term incentive pay rising from R2 698 000 to R3 289 000 over the period. The maximum short-term incentive paid to a white CEO within the sample was R19 134 000 in 2009.

Table 18: Descriptive Statistics - Short-Term Incentives - White Sample

| Measure | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|-----------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Count (n) | 7 | 11 | 19 | 24 | 33 | 39 | 43 | 45 | 44 | 36 |
| Min | - | - | - | - | - | - | - | - | - | - |
| Max | 9 065 | 10 326 | 10 811 | 13 098 | 17 605 | 19 134 | 11 244 | 12 809 | 14 894 | 14 424 |
| Mean | 2 615 | 2 196 | 2 213 | 2 344 | 2 698 | 2 684 | 2 442 | 3 154 | 2 908 | 3 289 |
| Std Dev. | 3 440 | 3 116 | 2 881 | 2 927 | 3 883 | 3 764 | 2 733 | 3 158 | 3 456 | 3 942 |
| Median | 589 | 1 031 | 979 | 955 | 1 096 | 1 206 | 1 560 | 2 044 | 1 633 | 1 677 |

The figure below represents the mean short-term incentives paid to both groups since 2004. The mean is significantly higher for the 2011 to 2013 period as opposed to pre-2011 period.

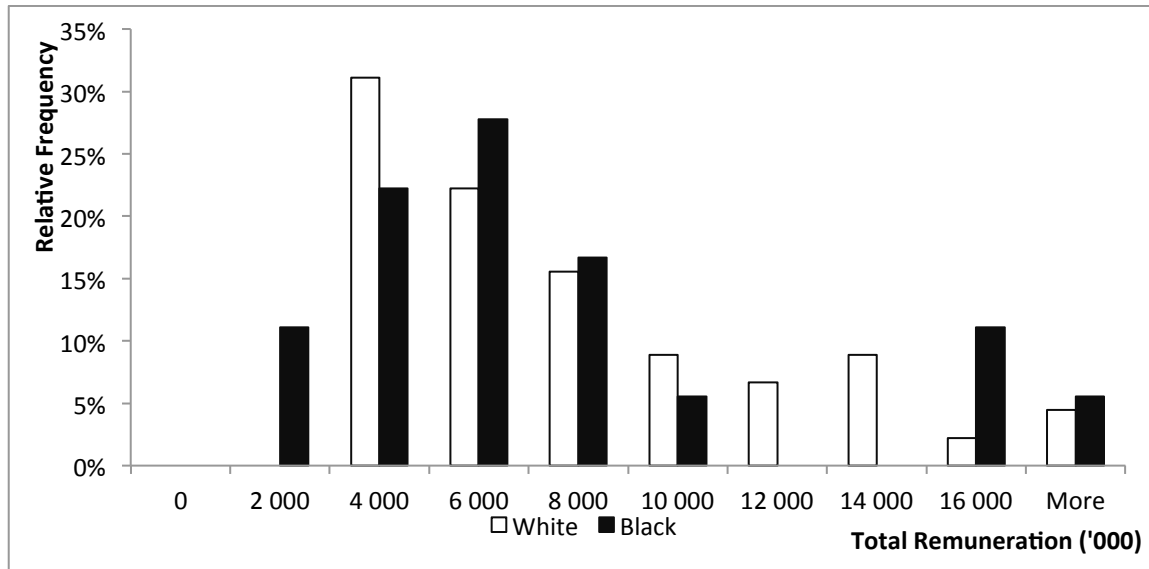
Figure 18: Mean CEO Short-Term Incentive per Sample



5.4.3 Total Remuneration

The descriptive analysis of the data of the short-term incentives awarded to black CEOs is shown below.

Figure 19: Descriptive Statistics - Histogram of Total Remuneration - 2011



The histogram shows that most black CEOs (28%) in 2011 received between R6 000 000 and R7 999 000 in total remuneration while most white CEOs (31%) earned between R4 000 000 and R5 999 000. Above R10 000 000 per year sees 31% of white CEOs and 22% of black CEOs achieving this but black CEOs out weight their white counterparts above R16 000 000 per year by 17% to 6% respectively.

Reviewing the total remuneration black CEOs mean total remuneration rose from R5 024 000 in 2008 to R8 751 000 in 2013. This equates to an annual average increase in their total remuneration of 9.7% for this same period. The standard deviation of these means progressed from R3 633 000 in 2008 to R8 318 000 by 2013 showing a growing variation in the amounts paid.

Table 19: Descriptive Statistics - Total Remuneration - Black Sample

| Measure | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|------------------|-------|-------|--------|--------|--------|-------|--------|--------|--------|--------|
| Count (n) | 2 | 2 | 5 | 7 | 12 | 14 | 16 | 18 | 18 | 16 |
| Min | 1 756 | 1 798 | 1 997 | 2 148 | 471 | 789 | 818 | 1 124 | 1 435 | 710 |
| Max | 4 918 | 8 650 | 13 725 | 13 433 | 12 848 | 9 904 | 12 314 | 22 528 | 23 539 | 28 840 |
| Mean | 3 337 | 5 224 | 5 612 | 5 097 | 5 024 | 5 183 | 5 699 | 6 844 | 7 694 | 8 751 |
| Std Dev. | 2 236 | 4 845 | 5 016 | 4 125 | 3 633 | 2 666 | 2 994 | 5 497 | 6 500 | 8 316 |
| Median | 3 337 | 5 224 | 2 908 | 2 864 | 4 164 | 5 183 | 5 603 | 5 110 | 5 780 | 5 960 |

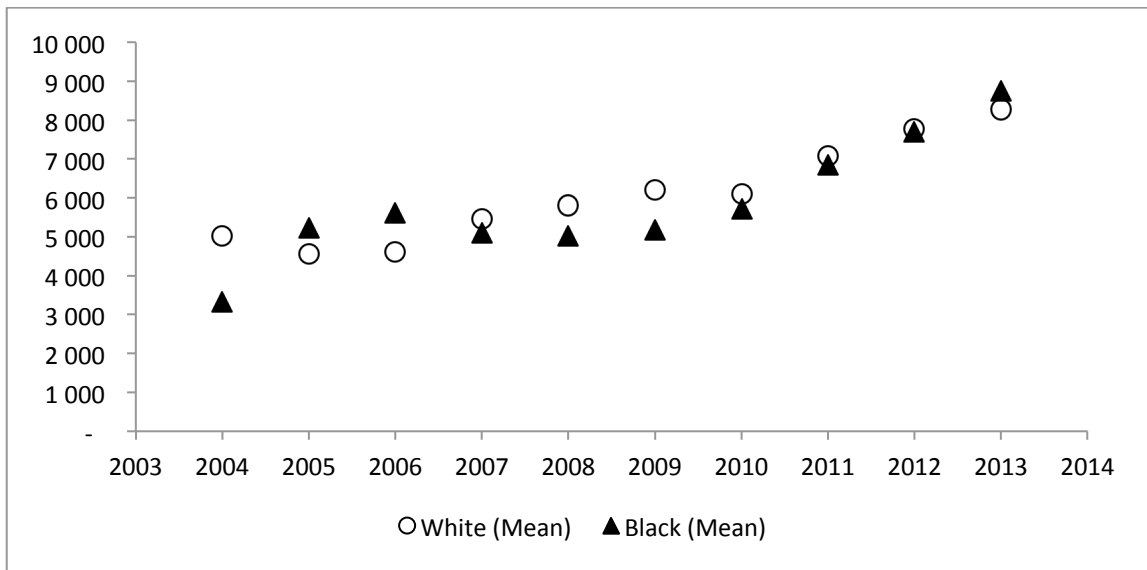
Mean total remuneration for white CEOs was R5 801 000 in 2008 and increased to R8 278 000 by 2013. In terms of an annual average increase this represents a 7.3% per year. The standard deviation for the same period widened slightly from R4 434 000 to R5 527 000.

Table 20: Descriptive Statistics - Total Remuneration - White Sample

| Measure | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Count (n) | 7 | 11 | 19 | 24 | 33 | 39 | 43 | 45 | 44 | 36 |
| Min | 987 | 1 331 | 1 115 | 1 431 | 1 578 | 1 683 | 1 888 | 2 020 | 1 917 | 1 811 |
| Max | 13 339 | 14 832 | 15 929 | 18 630 | 18 970 | 20 631 | 15 845 | 19 317 | 21 955 | 22 220 |
| Mean | 5 025 | 4 561 | 4 599 | 5 454 | 5 801 | 6 193 | 6 104 | 7 087 | 7 783 | 8 278 |
| Std Dev. | 4 730 | 4 224 | 3 826 | 4 512 | 4 434 | 4 213 | 3 373 | 4 287 | 5 055 | 5 527 |
| Median | 2 602 | 3 071 | 3 274 | 3 542 | 4 221 | 5 079 | 5 475 | 5 335 | 6 507 | 6 326 |

Reviewing the above two tables graphically in the figure below shows the development of each groups' mean total remuneration over the period 2004 to 2013. The lower growth per year of the white CEOs total remuneration can be seen for the period 2008 to 2013. Post 2008, 2013 is the first year the mean total remuneration of black CEOs was greater than white CEOs for the respective groups.

Figure 20: Mean CEO Total Remuneration per Sample



Mean total remuneration of black CEOs was largely stable during the period of 2005 to 2010, dipping slightly during the global recession years of 2008 and 2009. The mean total remuneration of white CEOs continued to increase over the recession period dipping only slightly in 2010. Since 2010 both groups have moved upwards in unison.

This concludes the descriptive analysis of the samples used in this study. The remaining sections of the results chapter deal directly with the testing required in answering the research propositions made in Chapter Three.

5.5 Results for Research Proposition One

Proposition one required the evaluation of the correlations between the measures executive remuneration and the measures of corporate performance. This was done to understand if certain measures of corporate performance are more closely correlated with executive pay for CEOs in general. No race distinction was made in this proposition and the two CEO samples were combined as one.

Given that the dataset used for this study was proven to be non-normal (see the Shapiro-Wilk tests conducted previously) requires the use of non-parametric tests to make the required evaluations. In this regard, as described in the research methodology, required the selection of Spearman's Rank Test over Pearson's Test. Linear regression was also conducted and the results are presented per component of executive remuneration.

5.5.1 Fixed Pay Correlations

Salkind (2012) notes that the coefficient of determination, or the R squared value in the tables below, reflects the amount of variance in a dependent variable accounted for by independent variable. The range of the R squared value will be between 0 and 1 and is analogous to the percentage impact the independent variables has upon the dependent variable.

Table 21: Regression R-Squared Values - Fixed Pay

| Measure | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | Avg. |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------|
| ROE | - | 0.166 | 0.000 | 0.030 | 0.061 | 0.004 | 0.011 | 0.014 | 0.001 | 0.014 | 0.033 |
| PAT | 0.613 | 0.400 | 0.580 | 0.561 | 0.545 | 0.391 | 0.382 | 0.398 | 0.147 | 0.431 | 0.445 |
| HEPS | 0.006 | 0.032 | 0.009 | 0.186 | 0.193 | 0.038 | 0.102 | 0.153 | 0.083 | 0.188 | 0.099 |
| SP | - | 0.007 | 0.032 | 0.000 | 0.000 | 0.000 | 0.002 | 0.024 | 0.059 | 0.026 | 0.015 |
| EBITDA | 0.619 | 0.570 | 0.598 | 0.487 | 0.347 | 0.275 | 0.307 | 0.381 | 0.266 | 0.393 | 0.424 |

PAT and EBITDA had the highest R squared values of 0.445 and 0,424 respectively when tested against fixed pay. ROE and share price movements had the lowest (0.033

and 0.015 respectively). Thus the independent variables of PAT and EBIDTA had the largest impact on the level of fixed pay the CEOs in the sample received. The least impactful were thus ROE and share price.

Table 22: Spearman's Rank Correlation Coefficients - Fixed Pay

| Measure | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | Avg. |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------------|
| ROE | | 0.307 | 0.129 | 0.125 | 0.234 | -0.00 | 0.002 | 0.015 | -0.02 | 0.139 | 0.102 |
| PAT | 0.81** | 0.670* | 0.54** | 0.68** | 0.72** | 0.60** | 0.60** | 0.65** | 0.40** | 0.51** | 0.621 |
| HEPS | 0.583 | 0.483 | 0.309 | 0.51** | 0.61** | 0.46** | 0.45** | 0.52** | 0.38** | 0.43** | 0.477 |
| SP | | 0.329 | 0.184 | -0.03 | -0.10 | 0.081 | 0.161 | 0.135 | 0.091 | 0.082 | 0.103 |
| EBITDA | 0.86** | 0.631* | 0.460* | 0.62** | 0.78** | 0.66** | 0.70** | 0.72** | 0.50** | 0.53** | 0.650 |

* p < 0.05 (2-tailed)

** p < 0.01 (2-tailed)

Spearman's rank coefficients for the fixed pay analysis reflect similar findings to the linear regression conducted above. Fixed pay showed strong correlations with PAT and EBITDA and a moderate correlation to HEPS. Pallant (2010) assists by providing an interpretation of the strength of the correlation from the magnitude of the correlation coefficient. She suggests that from 0.50 and above suggests a good to strong correlation, between 0.30 and 0.49 a moderate correlation and below 0.29 a weak to absent correlation. The average correlation coefficients of ROE and SP indicate a very weak correlation with fixed pay.

5.5.2 Short-term Incentive Correlations

Reviewing the impact of the various corporate performance measures on the short-term incentives CEOs receive indicates that PAT and EBITDA account for the majority of the variance seen. However the magnitude of the R squared values for these measures is noticeably less than the average values seen for fixed pay. ROE, HEPS and SP have little effect on the variance of short-term incentives paid.

Table 23: Regression R-Squared Values – Short-term Incentive

| Measure | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | Avg. |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------|
| ROE | - | 0.098 | 0.013 | 0.040 | 0.009 | 0.079 | 0.051 | 0.114 | 0.103 | - | 0.057 |
| PAT | 0.655 | 0.482 | 0.373 | 0.480 | 0.031 | 0.008 | 0.009 | 0.196 | 0.213 | 0.418 | 0.287 |
| HEPS | 0.014 | 0.001 | 0.007 | 0.119 | 0.081 | 0.134 | 0.163 | 0.068 | 0.102 | 0.195 | 0.088 |
| SP | - | 0.056 | 0.004 | 0.006 | 0.041 | 0.004 | 0.018 | 0.006 | 0.033 | 0.007 | 0.018 |
| EBITDA | 0.680 | 0.750 | 0.460 | 0.617 | 0.109 | 0.000 | 0.002 | 0.223 | 0.203 | 0.433 | 0.348 |

Spearman's correlation coefficients provide a more detailed view once the significance of each result is accounted for. While ROE showed a very weak correlation with fixed pay (with no significance) ROE has seen a growing correlation with short-term incentives and the presence of significance from 2010. This increase in significance of the period was also recorded with HEPS. Thus from 2010 HEPS and ROE have played stronger roles in short-term incentives.

Table 24: Spearman's Rank Correlation Coefficients - Short-term Incentives

| Measure | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | Avg. |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------------|
| ROE | | 0.252 | 0.357 | 0.269 | 0.160 | 0.254 | 0.34** | 0.49** | 0.41** | 0.42** | 0.331 |
| PAT | 0.85** | 0.637* | 0.67** | 0.55** | 0.38** | 0.332* | 0.40** | 0.54** | 0.50** | 0.56** | 0.545 |
| HEPS | 0.416 | 0.560* | 0.271 | 0.47** | 0.262 | 0.279* | 0.38** | 0.55** | 0.45** | 0.47** | 0.412 |
| SP | | 0.373 | 0.175 | 0.063 | -0.05 | 0.054 | 0.259 | 0.276* | 0.290* | 0.183 | 0.180 |
| EBITDA | 0.633 | 0.576* | 0.53** | 0.428* | 0.262 | 0.321* | 0.239 | 0.41** | 0.37** | 0.63** | 0.442 |

* p < 0.05 (2-tailed)

** p < 0.01 (2-tailed)

EBITDA and PAT have shown strong correlation and significance across the period with average correlation coefficients of 0.442 and 0.545 respectively.

5.5.3 Total Remuneration Correlations

Variations in total remuneration were accounted for mostly by PAT and EBITDA where the average coefficients of determination were 0.346 and 0.376 respectively across the period. As seen with the other components of executive pay ROE and SP showed very low coefficients of determination (0.058 and 0.010) and thus the strength of the relationship is considered weak.

Table 25: Regression R-Squared Values – Total Remuneration

| Measure | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | Avg. |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------|
| ROE | - | 0.012 | 0.066 | 0.035 | 0.093 | 0.060 | 0.097 | 0.056 | 0.098 | - | 0.058 |
| PAT | 0.582 | 0.449 | 0.615 | 0.400 | 0.157 | 0.093 | 0.150 | 0.336 | 0.161 | 0.520 | 0.346 |
| HEPS | 0.008 | 0.004 | 0.000 | 0.121 | 0.142 | 0.151 | 0.234 | 0.124 | 0.082 | 0.210 | 0.107 |
| SP | - | 0.046 | 0.006 | 0.009 | 0.019 | 0.002 | 0.015 | 0.001 | 0.000 | 0.001 | 0.010 |
| EBITDA | 0.602 | 0.672 | 0.561 | 0.458 | 0.221 | 0.040 | 0.099 | 0.354 | 0.251 | 0.505 | 0.376 |

The correlation coefficients of total remuneration followed the patterns seen in the previous components of executive remuneration. Although the dominant correlations for total remuneration sit with PAT and EBITDA, ROE and HEPS have seen growing importance and significance over the period most notably since 2010.

Table 26: Spearman's Rank Correlation Coefficients - Total Remuneration

| Measure | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | Avg. |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------------|
| ROE | | 0.258 | 0.313 | 0.231 | 0.293 | 0.245 | 0.310* | 0.40** | 0.304* | 0.338* | 0.300 |
| PAT | 0.81** | 0.73** | 0.70** | 0.68** | 0.69** | 0.54** | 0.64** | 0.72** | 0.54** | 0.61** | 0.671 |
| HEPS | 0.466 | 0.549 | 0.305 | 0.56** | 0.57** | 0.46** | 0.56** | 0.66** | 0.49** | 0.53** | 0.519 |
| SP | | 0.329 | 0.184 | -0.03 | -0.10 | 0.081 | 0.161 | 0.135 | 0.091 | 0.082 | 0.103 |
| EBITDA | 0.733* | 0.681* | 0.60** | 0.57** | 0.59** | 0.53** | 0.54** | 0.62** | 0.46** | 0.64** | 0.601 |

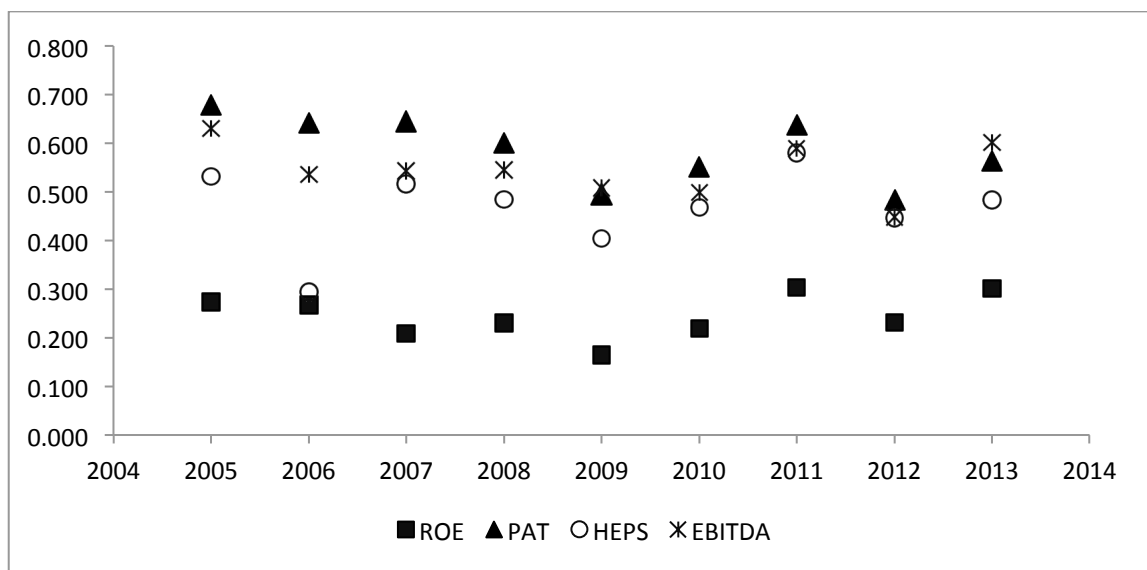
* p < 0.05 (2-tailed)

** p < 0.01 (2-tailed)

SP had a very limited correlation with total remuneration reflecting near-zero but negative correlations in 2007 and 2008. Since 2010 the correlation has been weakening consistently.

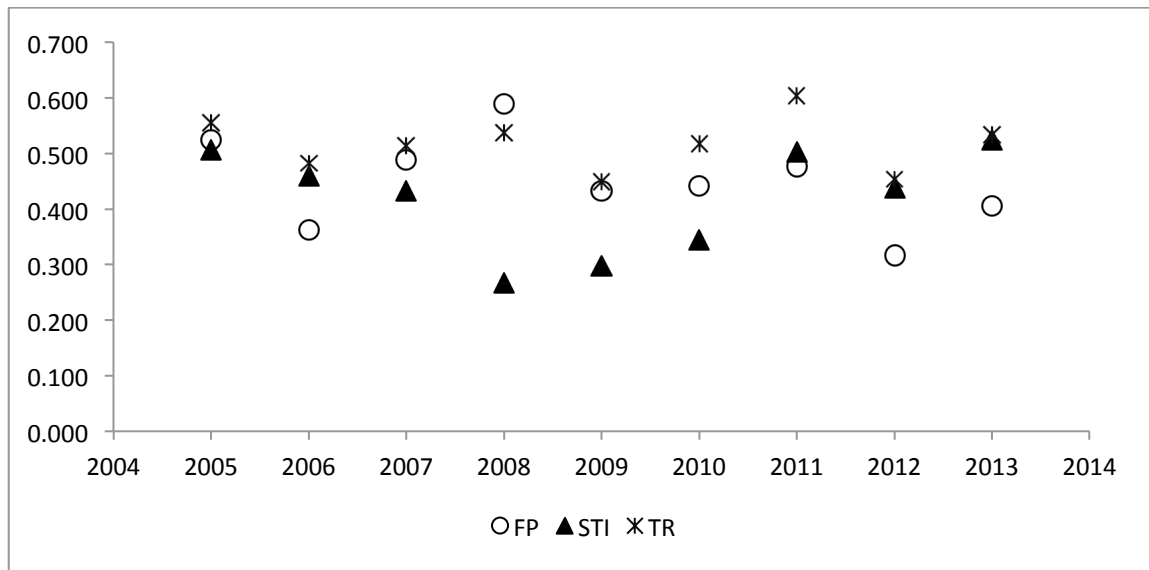
In summary of the results for proposition one the study shows the dominant independent variables are PAT, EBITDA and HEPS across all components of executive pay. The strength of this relationship and the correlation can be considered strong given the definitions provided by the literature. ROE has grown in correlation strength and significance since 2009. SP featured very poorly as an independent variable across all the components of executive remuneration.

Figure 21: Correlation Trends for Corporate Performance - 2005 to 2013



Averaging the Spearman's correlation coefficients between pay and performance (excluding SP) over the period of the study provides insight into the trends of each over the period. The figure above shows the correlation coefficients of the corporate performance measures indicating the strength of PAT, EBITDA and HEPS and the recovery of ROE since 2009.

Figure 22: Correlation Trends for Remuneration - 2005 to 2013



Overall the correlation for the period between performance and pay could be described as flat. Although there are years where the correlations strengthen and weaken the net movement is flat for the period. Thus it cannot be argued that CEO pay is becoming overall more related to performance with time. Shaw (2012) notes that pay-performance sensitivities will fluctuate over time in line with the prevailing macroeconomic trends at the time. There appears to be a degree of alignment in the fluctuations of the pay-performance sensitivities and the recent global recession.

5.6 Results for Research Proposition Two

Whereas proposition one didn't account for race proposition two required the evaluation of each race samples' pay-performance sensitivities in order to test for any significant differences. Given that the dataset used for this study was proven to be non-normal (see the Shapiro-Wilk tests conducted previously) required the use of non-parametric tests to make the required evaluations. In this regard, as described in the research methodology, required the selection of Spearman's Rank Test. Linear regression was also conducted as a confirmation test and results are presented per component of executive remuneration. Given the small sample of black CEO's prior to 2009 this proposition's analysis has only considered remuneration and performance data since 2009.

5.6.1 Fixed Pay Correlations per Race

The correlation coefficients for the various corporate performance measures showed that black and white CEOs fixed pay is strongly correlated with EBITDA, PAT and HEPS. As with proposition one SP reflected a very weak correlation for this component.

Table 27: Spearman's Rank Correlation Coefficients per Race - Fixed Pay

| Measure | 2009 | 2010 | 2011 | 2012 | 2013 | Avg. |
|----------------|--------|--------|--------|--------|--------|--------------|
| ROE – Black | -0.08 | 0.072 | 0.090 | 0.040 | 0.118 | 0.047 |
| ROE – White | 0.270 | 0.195 | 0.171 | 0.124 | 0.318 | 0.216 |
| PAT – Black | 0.71** | 0.79** | 0.69** | 0.460 | 0.62** | 0.657 |
| PAT – White | 0.70** | 0.66** | 0.71** | 0.52** | 0.60** | 0.644 |
| HEPS – Black | 0.670* | 0.71** | 0.61** | 0.61** | 0.593* | 0.643 |
| HEPS – White | 0.54** | 0.51** | 0.57** | 0.43** | 0.55** | 0.526 |
| SP – Black | 0.275 | 0.131 | -0.05 | -0.16 | -0.11 | 0.014 |
| SP – White | 0.198 | 0.127 | -0.03 | 0.045 | 0.068 | 0.081 |
| EBITDA – Black | 0.85** | 0.87** | 0.90** | 0.75** | 0.67** | 0.814 |
| EBITDA – White | 0.74** | 0.74** | 0.81** | 0.57** | 0.65** | 0.707 |

* p < 0.05 (2-tailed)

** p < 0.01 (2-tailed)

Relative differences noted in the strength of the performance correlations can be seen in ROE (white is more strongly correlated to ROE than black) HEPS and EBITDA (black is more strongly correlated than white). However significance ($p < 0.01$) was only obtained within PAT, EBITDA and HEPS in the Spearman rank test. Thus the results for SP and ROE should be discounted given that statistically they could have occurred by chance and not by an assignable cause.

Table 28: Regression R-Squared Values per Race - Fixed Pay

| Measure | 2009 | 2010 | 2011 | 2012 | 2013 | Avg. |
|----------------|--------|--------|--------|--------|--------|--------------|
| ROE – Black | 0.044 | 0.000 | 0.022 | 0.007 | 0.006 | 0.016 |
| ROE – White | 0.016 | 0.016 | 0.012 | 0.001 | 0.037 | 0.017 |
| PAT – Black | 0.374* | 0.429* | 0.42** | 0.219 | 0.65** | 0.421 |
| PAT – White | 0.48** | 0.24** | 0.31** | 0.094* | 0.169* | 0.262 |
| HEPS – Black | 0.256 | 0.53** | 0.251* | 0.212 | 0.389* | 0.329 |
| HEPS – White | 0.036 | 0.051 | 0.098* | 0.070 | 0.132* | 0.078 |
| SP – Black | 0.026 | 4.635 | 0.022 | 0.114 | 0.053 | 0.043 |
| SP – White | 0.000 | 0.003 | 0.024 | 0.039 | 0.012 | 0.016 |
| EBITDA – Black | 0.45** | 0.432* | 0.58** | 0.43** | 0.63** | 0.508 |
| EBITDA – White | 0.22** | 0.23** | 0.35** | 0.15** | 0.108* | 0.217 |

* $p < 0.05$ (2-tailed)

** $p < 0.01$ (2-tailed)

Regression analysis revealed that black CEOs fixed pay was related in descending order to EBITDA (0.508), PAT (0.421) and HEPS (0.329). White CEO fixed pay showed overall weaker relationships in absolute terms with PAT (0.262) and EBITDA (0.217) being only of significance.

Therefore PAT and EBITDA were the only performance measures to obtain a significant and strong correlation with fixed pay in both groups. It could be seen from the regression analysis that black CEO's variance in fixed pay could be better explained by these performance measures than white CEO's. Thus it is possible that black CEO fixed pay is more sensitive to this basket of corporate performance measures than white CEOs. Alternatively variation in white CEO fixed pay could be better explained by a

independent variable not considered in this study.

5.6.2 Short-term Incentive Correlations per Race

Short-term incentives presented as expected with the notable correlations being with PAT, EBITDA and HEPS for both black and white CEOs. ROE's growing correlation to short-term incentives can be seen in both groups but more particularly in black CEOs over the period studied. It must be cautioned that ROE for black CEOs didn't obtain significance in every year studied in contrast to ROE correlations for white CEOs which showed a strong and significant correlation.

Table 29: Spearman's Rank Correlation Coefficients per Race - Short-term Incentives

| Measure | 2009 | 2010 | 2011 | 2012 | 2013 | Avg. |
|----------------|--------|--------|--------|--------|--------|--------------|
| ROE - Black | 0.109 | 0.225 | 0.69** | 0.563* | 0.461 | 0.411 |
| ROE - White | 0.50** | 0.53** | 0.54** | 0.49** | 0.59** | 0.535 |
| PAT - Black | 0.589* | 0.504* | 0.505* | 0.72** | 0.73** | 0.611 |
| PAT - White | 0.45** | 0.52** | 0.66** | 0.53** | 0.67** | 0.571 |
| HEPS - Black | 0.443 | 0.474 | 0.438 | 0.570* | 0.624* | 0.510 |
| HEPS - White | 0.44** | 0.55** | 0.69** | 0.50** | 0.56** | 0.551 |
| SP – Black | 0.590* | 0.82** | 0.575* | 0.319 | 0.180 | 0.498 |
| SP – White | 0.175 | 0.208 | 0.258 | 0.349* | 0.383* | 0.275 |
| EBITDA - Black | 0.656* | 0.324 | 0.359 | 0.446 | 0.70** | 0.497 |
| EBITDA - White | 0.40** | 0.40** | 0.62** | 0.48** | 0.77** | 0.538 |

* p < 0.05 (2-tailed)

** p < 0.01 (2-tailed)

As with fixed pay PAT, HEPS and EBITDA showed a significant and strong correlation with short-term incentives for both groups. In terms of SP the above table shows perhaps an interesting trend. While the correlation strength and significance between SP and black short-term incentives has been weakening through the period white CEOs have seen a strengthening correlation in this measure.

Table 30: Regression R-Squared Values per Race - Short-term Incentives

| Measure | 2009 | 2010 | 2011 | 2012 | 2013 | Avg. |
|-----------------------|--------|--------|--------|--------|--------|--------------|
| ROE – Black | 8.542 | 0.028 | 0.245 | 0.126 | 0.047 | 0.090 |
| ROE – White | 0.095 | 0.057 | 0.076 | 0.18** | 0.18** | 0.120 |
| PAT – Black | 0.080 | 0.130 | 0.62** | 0.43** | 0.79** | 0.413 |
| PAT – White | 0.003 | 0.001 | 0.101* | 0.080 | 0.149* | 0.067 |
| HEPS – Black | 0.038 | 0.019 | 0.001 | 0.045 | 0.123 | 0.046 |
| HEPS – White | 0.139* | 0.026 | 0.049 | 0.15** | 0.25** | 0.126 |
| SP – Black | 0.304 | 0.69** | 0.346* | 0.133 | 0.005 | 0.296 |
| SP – White | 0.013 | 0.000 | 0.011 | 0.019 | 0.008 | 0.011 |
| EBITDA - Black | 0.168 | 0.078 | 0.61** | 0.57** | 0.88** | 0.464 |
| EBITDA - White | 0.003 | 0.004 | 0.17** | 0.039 | 0.120* | 0.068 |

* p < 0.05 (2-tailed)

** p < 0.01 (2-tailed)

The regression analysis showed moderate strength relationships with EBITDA explaining 46.4% and PAT explaining 41.3% (both with p < 0.01 for 2011 to 2013) of the variance seen in the short-term incentives paid to black CEOs. White CEOs saw low variance explanation with ROE (12.0%) and HEPS (12.6%). No relationship of any significance was found between each group and SP.

Therefore black CEO short-term incentives paid were best explained by strong relationships with EBITDA and PAT. White CEO short-term incentive pay showed only a weak relationship to ROE and HEPS. As with fixed pay, white CEO pay appears to be less sensitive to this basket of corporate performance measures studied than their black counterparts.

5.6.3 Total Remuneration Correlations per Race

Total remuneration correlations provided the following results. As with the previously presented CEO fixed pay component only PAT, HEPS and EBITDA showed a significant ($p < 0.01$) and strong correlation with total remuneration received. ROE and SP failed to provide any significant correlation for this measure.

In reviewing the following table black and white CEO total remuneration had similar magnitude correlations with PAT and HEPS. The highest significant correlation recorded (0.913) was for white CEOs total remuneration relationship with EBITDA.

Table 31: Spearman's Rank Correlation Coefficients per Race - Total Remuneration

| Measure | 2009 | 2010 | 2011 | 2012 | 2013 | Avg. |
|----------------|--------|--------|--------|--------|--------|--------------|
| ROE - Black | 0.039 | 0.225 | 0.599* | 0.387 | 0.346 | 0.320 |
| ROE - White | 0.070 | -0.12 | -0.18 | -0.23 | 0.135 | 0.069 |
| PAT - Black | 0.71** | 0.73** | 0.73** | 0.69** | 0.67** | 0.712 |
| PAT - White | 0.77** | 0.81** | 0.87** | 0.66** | 0.69** | 0.765 |
| HEPS - Black | 0.589* | 0.65** | 0.67** | 0.71** | 0.625* | 0.652 |
| HEPS - White | 0.69** | 0.74** | 0.86** | 0.66** | 0.73** | 0.740 |
| SP - Black | 0.599* | 0.74** | 0.506 | 0.234 | 0.131 | 0.444 |
| SP - White | -0.07 | -0.13 | -0.33* | -0.23 | 0.148 | 0.127 |
| EBITDA - Black | 0.79** | 0.590* | 0.66** | 0.60** | 0.70** | 0.674 |
| EBITDA - White | 0.90** | 0.89** | 0.92** | 0.90** | 0.93** | 0.913 |

* $p < 0.05$ (2-tailed)

** $p < 0.01$ (2-tailed)

Overall black CEO total remuneration was strongly correlated with PAT (0.712), EBITDA (0.674) and HEPS (0.652). White CEO total remuneration was strongly correlated with EBITDA (0.913), PAT (0.765) and HEPS (0.740).

Table 32: Regression R-Squared Values per Race - Total Remuneration

| Measure | 2009 | 2010 | 2011 | 2012 | 2013 | Avg. |
|----------------|--------|--------|--------|--------|--------|--------------|
| ROE - Black | 0.010 | 0.013 | 0.220 | 0.053 | 0.041 | 0.068 |
| ROE - White | 0.126* | 0.073 | 0.062 | 0.060 | 0.20** | 0.105 |
| PAT - Black | 0.282 | 0.369* | 0.164 | 0.47** | 0.75** | 0.410 |
| PAT - White | 0.085 | 0.129* | 0.20** | 0.028 | 0.36** | 0.162 |
| HEPS - Black | 0.187 | 0.234 | 0.067 | 0.128 | 0.176 | 0.159 |
| HEPS - White | 0.154* | 0.090 | 0.084 | 0.080 | 0.25** | 0.133 |
| SP - Black | 0.243 | 0.412* | 0.189 | 0.020 | 0.000 | 0.173 |
| SP - White | 0.011 | 0.001 | 0.010 | 0.004 | 0.000 | 0.006 |
| EBITDA - Black | 0.424* | 0.273 | 0.098 | 0.71** | 0.80** | 0.463 |
| EBITDA - White | 0.010 | 0.057 | 0.27** | 0.065 | 0.31** | 0.145 |

* p < 0.05 (2-tailed)

** p < 0.01 (2-tailed)

Reviewing the regression results above showed, as with the other pay components studied, that the variation in total remuneration was better explained by the independent variables in the black CEO group. EBITDA and PAT accounted for 46.3% and 41.0% respectively of the variation seen in black CEO total remuneration. In contrast these variables accounted for only 14.5% and 16.2% of the variation represented in the white CEO group. HEPS was the only corporate performance measure that produced similar R squared values between the groups.

In summary of proposition two it is clear that the same dominate corporate performance measures (EBITDA, PAT and HEPS) are strongly correlated to the remuneration components for both groups. Although the order may change depending on the component EBITDA, PAT and HEPS impacted the remuneration of both groups. Black CEOs total remuneration showed greater sensitivity to these measures than white CEOs.

5.7 Results for Research Proposition Three

This proposition involved testing for the presence of significant differences between the structures of each group’s remuneration. It was evident from the normality tests results that the appearance of normality differs from year to year across all three measures of executive pay studied. Thus in answering research proposition two a mixture of parametric and non-parametric tests will be required as defined in the research methodology.

5.7.1 Effect of Race on Remuneration

The results table below reflects the p-values of the t-Test and the Mann-Whitney tests conducted on the three aspects of the executive remuneration.

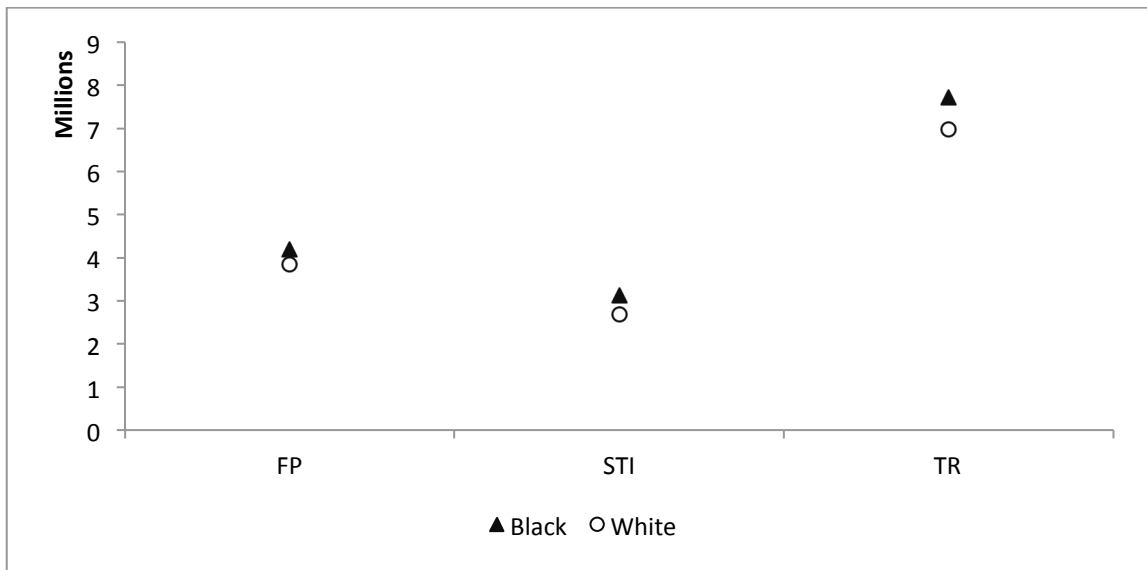
Table 33: p-Values for the Two Sample Independent t-Tests and Mann-Whitney Tests

| | Test | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|--------------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Fixed | t Test | 0.278 | 0.486 | 0.437 | 0.395 | 0.441 | 0.333 | 0.330 | 0.427 | 0.371 | 0.241 |
| | Mann-Whit. | 0.385 | 0.422 | 0.322 | 0.362 | 0.469 | 0.385 | 0.452 | 0.375 | 0.494 | 0.310 |
| STI | t Test | 0.281 | 0.401 | 0.426 | 0.461 | 0.327 | 0.264 | 0.407 | 0.493 | 0.377 | 0.440 |
| | Mann-Whit. | 0.500 | 0.277 | 0.261 | 0.388 | 0.464 | 0.343 | 0.493 | 0.147 | 0.343 | 0.086 |
| Total | t Test | 0.259 | 0.440 | 0.345 | 0.424 | 0.278 | 0.155 | 0.329 | 0.434 | 0.479 | 0.419 |
| | Mann-Whit. | 0.385 | 0.500 | 0.348 | 0.462 | 0.341 | 0.351 | 0.367 | 0.287 | 0.283 | 0.289 |

The alpha value selected for both tests was 0.05 and for all remuneration combinations across the period of the study the p-value was greater than 0.05. This indicates that there is no significant difference between each of the sample means across the measures of executive remuneration. Thus the attribute of race doesn’t appear to significantly impact on the mean remuneration received by either group.

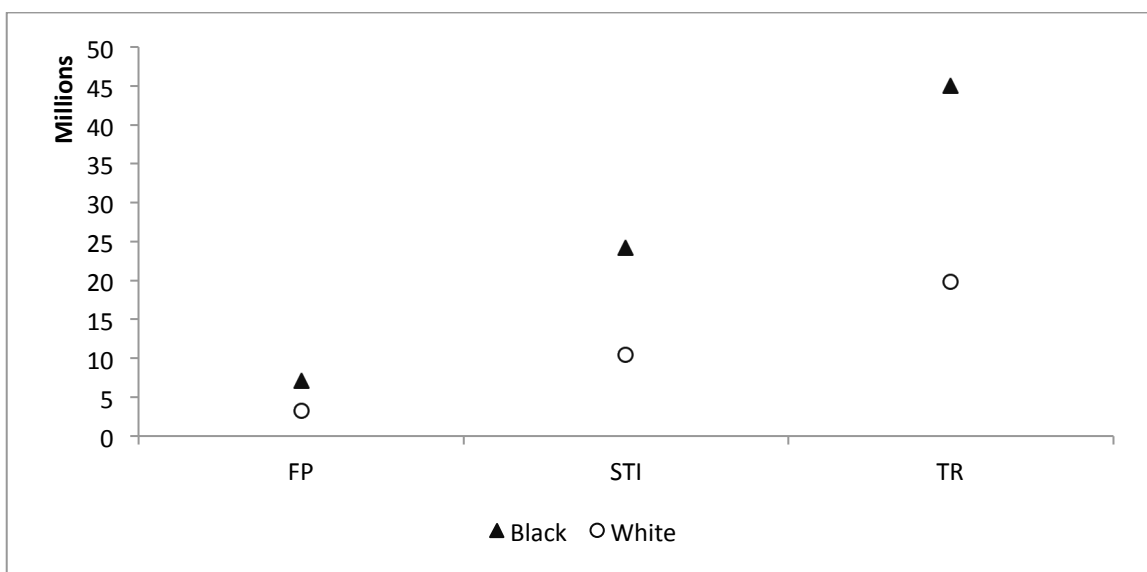
The above results were confirmed through conducting a two factor ANOVA test on the CEO remuneration data. As identical sample sizes between the black and white CEO groups were required for this test. Thus a random sample of 52 black CEOs and 52 white CEOs was constructed using remuneration data between 2011 and 2013.

Figure 23: Mean Remuneration per Race- 2011 to 2013



The results of the ANOVA test showed a p-value of 0.295 (>0.05) which indicates that there is no significant difference between the mean remuneration components black and white CEO's receive respectively. Firstly this confirms the earlier finding from the Mann-Whitney tests. Secondly the lack of interaction (p-value = 0.924 > 0.05) between the remuneration components and race shows the similarity in the structure and mixture of the remuneration components making up executive pay in the samples.

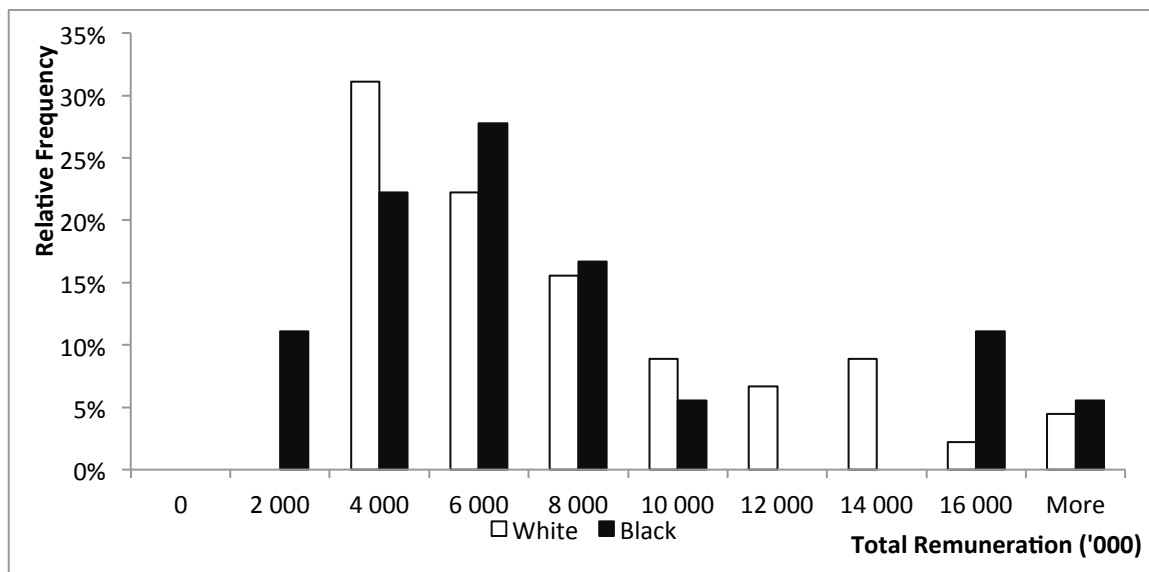
Figure 24: Variance in Remuneration Components per Race - 2011 to 2013



The figure above reflects the variance within each remuneration component seen in the ANOVA test results. The variance in fixed pay is similar between black and white CEOs however this variance similarity is not seen in the incentives and total remuneration components. Within these components the variance observed in the black CEOs is higher than that of the white CEOs.

The distribution and variance of each race group's total remuneration can be shown through the use of a histogram (as presented in section 5.4.3 and below). The figure below reflects the relative weight of the black CEO outliers earning R16 000 000m and more. To reveal the effect of these outliers both black and white CEOs earning R16 000 000m and more were then removed from the sample.

Figure 25: Relative Frequency Histogram - Black and White CEO TR - 2011



The removal of the outliers produced a shift downward of 24% in the mean total remuneration for black CEOs to R5 208 000pa in 2011. White CEO mean total remuneration fell by a lower 11% to R6 328 000pa. Figure 25 above reflects that this variance is as a result of two separated groups within the black CEO sample. The first group are those black CEOs earning less than R10 000 000pa and present a distribution that could be considered normal. The separation to the second grouping of black CEOs was R6 000 000pa.

5.7.2 Effects of Company Size on Remuneration

Many of the studies consulted in Chapter Two noted that the size of the company had a significant influence on executive remuneration. In order to control for the size of the company the application of an analysis of covariance (ANCOVA) test was conducted as described in Chapter Four. For the test total assets was the selected as the proxy for size and was tested against total remuneration and race for the 2009 to 2013 period. This period was selected given the adequate sample sizes per year.

Table 34: p-Values of the ANCOVA Test

| Measure | 2009 | 2010 | 2011 | 2012 | 2013 | Significant |
|-------------------------|--------|--------|--------|--------|--------|-------------|
| Treatment (Race) | 0.3836 | 0.6061 | 0.7768 | 0.8791 | 0.4174 | No |
| Covariate (Size) | 0.4670 | 0.1540 | 0.0025 | 0.0130 | 0.0001 | Yes |

The p-values of the ANCOVA test are shown above. Firstly it confirms that race is not significant (treatment p-values > 0.05) in terms of mean total remuneration as per the Mann-Whitney tests. Secondly it confirms that the covariant of company size has a significant influence (p-values < 0.05) in the mean total remuneration of the CEOs in the two samples.

5.8 Summary of Results

Black CEOs mean total remuneration in 2013 was R 8 751 000 which had been growing at 9.7% since 2008. White CEO mean total remuneration was R 8 278 000 in the same year and experienced a slower growth rate (7.3%) over the same period. Post 2008, 2013 is the first year the mean total remuneration of black CEOs was greater than white CEOs for the respective groups.

Results for proposition one revealed the dominant independent variables are PAT and EBITDA across all components of executive pay. The strength of this relationship and the correlation can be considered strong given the definitions provided by the literature. ROE and HEPS have grown in correlation strength and significance since 2009. SP featured very poorly as an independent variable across all the components of executive remuneration.

Results for proposition two showed that the same dominate corporate performance measures (EBITDA, PAT and HEPS) are correlated to the remuneration components for both groups. Although the relative order may change for the various remuneration components EBITDA, PAT and HEPS impacted the remuneration of both groups. White CEOs total remuneration was very strongly correlated to EBITDA and strongly correlated to PAT and HEPS. Black CEO total remuneration was strongly correlated to the three measures. Black CEO total remuneration reflected the growing correlation strength with ROE over the period. Overall however, despite the differences mentioned, there is doesn't appear to be a material difference in the pay-performance dynamics between black and white CEOs.

Results for research proposition three indicated that there is no significant difference between the mean remuneration components black and white CEO's receive respectively. Although there is no significant difference in the mean remuneration there were large variances recorded for black CEO incentive and total remuneration components. The analysis of the variance showed the presence of powerful outliers within the black CEO sample. With these extreme examples removed the mean total remuneration of black CEOs dropped significantly calling into question the earlier

findings of equitable pay. Within each component of pay the variance observed in the black CEOs was noticeably higher than that of the white CEOs.

The average correlation for total remuneration across the corporate performance measures found to be significant did not materially change over the period. Although there were years where the correlations strengthen and weaken the net movement is flat for the period. Thus it cannot be argued that CEO pay is becoming overall more related to performance with time.

The following chapter discusses the results presented in this chapter in detail and with particular reference to the literature reviewed in Chapter Two.

Chapter 6: Discussion of Results

6.1 Introduction

In Chapter Six the results of the data analysis completed in Chapter Five are discussed in the light of the literature presented in Chapter Two. The structure of this chapter sees each of the research propositions presented in Chapter Three discussed separately.

6.2 Discussion of Research Proposition One

Research proposition one set out to probe which of the various groups of corporate performance measures had the highest correlation with CEO remuneration in general. The proposition was stated to expect a greater dependence on accounting-based measures than market or economic-based measures for the combined sample of JSE CEOs drawn.

This proposition was born out of the first research objective, as stated in Chapter One, to better understand against which types of corporate performance measures (accounting or market-based) South African CEO's in general are incentivised against. The intension of the objective was to understand if boards and remuneration committees favour the use of accounting-based or market-based corporate performance measures without the variable of race involved and the possible motivation thereof.

In order to meet this objective the black and white CEO samples were combined as a single dataset providing 390 CEO years or individual data points across ten years and 64 different CEOs. This was done in order to draw inferences about the population of JSE CEOs given the large sample size. Proposition one would also provide a basis on which proposition two would expand upon.

6.2.1 Accounting-based Corporate Performance Measures

The accounting-based corporate performance measures defined in the study were ROE and PAT. The results seen for proposition one in Chapter Five revealed that PAT was strongly correlated with fixed pay (Table 22) explaining nearly 45% of the variance (Table 21) seen in this component. PAT recorded the highest correlation strength amongst the independent variables tested for fixed pay. PAT also played dominant roles in both the short-term incentives and total remuneration received by CEOs accounting for 28.7 % (Table 23) and 34.6% (Table 25) of the variance seen receptively. PAT and accounting-based measurement dominance was also recorded by Abowd (1990).

ROE didn't show significant correlation with fixed pay and the relationship was defined as weak through the period studied (Table 22). ROE however gained a growing and significant correlation with the short-term incentives awarded following 2009 (Table 24). This concurs with work done by Tosi et al. (2000) and Shaw (2012) who noted that ROE best correlated with short-term incentives. The growing significance and correlation strength of ROE filtered through to total remuneration. Over the ten year period ROE increased its correlation strength form weak to moderate (Table 26). This increasing strength is reassuring in that CEO remuneration and incentives appears to be more closely tied to shareholder returns.

Accounting-based measures selected showed differencing results. PAT retained its strong correlation over the period while ROE graduated from a weak correlation to a moderate correlation.

6.2.2 Market-based Corporate Performance Measures

EBITDA, HEPS and SP were considered market-based or economic-based measures of corporate performance. EBITDA showed strong correlations with all aspects of CEO remuneration accounting for at least 35% (Tables 21, 23 and 25) for the variances seen in these components. This supported findings made by Shaw (2012) in particular.

HEPS showed what could be considered a moderate to strong correlations across the components of remuneration studied. HEPS however was only able to explain at most 10% of the variances seen in fixed pay, short-term incentives and total remuneration (Tables 21, 23 and 25). This weak variance explanation was also noted by Shaw (2012). Analysing HEPS results from Chapter Five in more detail showed an increase in both correlation strength and variance explanation since 2007 (Tables 22, 24 and 26). As with ROE this is reassuring in that CEO remuneration and incentives appears to be more closely tied to shareholder returns.

The lack of a significant correlation or relationship between SP and CEO remuneration found in this study is against the findings of Bugeja et al. (2012) and Show and Zhang (2010). It must however be noted that although the above two pieces of research did find significant correlations they were in opposing directions. Thus it appears that the effect of SP movement on CEO remuneration is not clear and requires further research.

In summary a similar pattern was identified with that of the accounting-based measures reviewed in the previous section. EBIDAT was seen to maintain a strong correlation (as did PAT) with the various components across the period with HEPS growing in correlation strength as ROE did.

6.2.3 Proposition One Concluding Discussion

PAT and EBITDA were found to be the most strongly correlated with the various components of CEO remuneration of all the independent variables tested. A close analysis of the various figures presented in Chapter Five (section 5.5) of the study showed PAT to ultimately have the highest correlation across the period and remuneration components. The prominence of accounting-based measures of corporate performance, such as PAT, is supported within the recognised body of literature. The results of this portion of the proposition are supported by work done by Conyon and He (2011), Ghosh (2006), Wang and Xiao (2011) and Theunissen and

Oberholzer (2013) who find similar strong pay links to accounting-based measures.

Thus although the strongest correlation was an accounting-based corporate performance measure it was closely balanced with an economic-based measure in the form of EBITDA. EBITDA is considered an economic-based measure in the literature review as it can be seen to best represent the inherent profitability of the organisation (Ward & Price, 2006). The growing importance of non-accounting-based measures was seen in the literature, particularly work done by Rashid (2013), Ozhan (2011) and Bugeja et al. (2012). The use of EBITDA is considered reassuring given the recommendations made in numerous studies for corporates to look more closely at the increased use of market or economic-based measures (Conyon & He, 2011; Ghosh, 2006; Wang & Xiao, 2011).

The increasing significance and relationship strength in ROE and HEPS with executive remuneration, especially since 2007, is further reassuring. This is because both measures relate to how shareholders view the performance of the business and thus is possibly a sign of the closer alignment between the financial fate of shareholders and CEOs. This alignment also signals more remuneration risk for CEOs who will attempt to mitigate this through increased managerial power (Bebchuck & Fried, 2005).

Although proposition one focused on the determination of the pay-for-performance sensitivities of South African CEOs the discussion of results of this proposition can extend easily beyond this. Several other inferences can be drawn from the results as discussed below.

Lunenburg (2011) and Lawler III and Suttle (1973) validated the use of expectancy theory in explaining human attitudes and workplace behaviour. Expectancy theory ties effort to reward through performance in a three-stage model (see figure 1). In the context of this study instrumentality is the link between corporate performance and executive pay and rewards.

The results from proposition one show that instrumentality could be considered strong where CEOs are rewarded against PAT and EBITDA as measures of corporate performance. Through applying expectancy theory to this study CEOs, whose reward is based upon PAT and/or EBITDA, would have little reason to doubt that better performance of these measures would result in more rewards. Thus such CEOs could potentially be more motivated to perform than CEOs whose reward was determined by some of the remaining corporate performance measures in this study.

Strength of the instrumentality link is not only important for the motivation of the CEO to perform but also a corporate governance requirement as defined by King III. King III specifically calls on executive remuneration to be fairly and reasonably linked to corporate performance (IoDSA, 2013). Thus should PAT and EBITDA be considered fair measures of corporate performance then it is possible to expect that this element of King III could be satisfied.

Remaining with expectancy theory Lunenburg (2011) defines valence as the personal desirability of the possible rewards as the final component of this theory. In the literature reviewed on incentive theories Baker et al. (1988) described the importance of this desirability and its effect on behaviour while Kohn (1993) warned of an over reliance on excessive extrinsic rewards. Although this study only considered the extrinsic rewards paid to executives the median remuneration and the relevant growth rates seen in the sample don't appear excessive. This confirms Larcker and Tayan (2011) analysis that the average CEO is not overpaid given the associated responsibilities and risk of the position. The perception of overpayment may be due to the media's focus on the outliers of executive remuneration such as Constable, Boardman, Debenqwa and Nxasana.

Although individual companies were not studied, instances where pay-for-performance sensitivities are low across all measures of corporate performance could indicate excessive managerial power as discussed by Bebchuk and Fried (2003). Bebchuk and Fried (2003), and indeed O'Reilly and Main (2010), venture to suggest that management has the ability to capture boards and extend their power over their

remuneration. The availability of secondary data makes this an ideal recommendation for future study: using pay-for-performance sensitivities to identify individual companies that may have captured boards.

In summary, proposition one stated that remuneration would be more closely linked to accounting-based measures than economic or market-based measures. This was found to be technically true with PAT slightly being more impactful than EBITDA on the remuneration levels of CEOs in this study.

The research objective behind this proposition sought to see against which types of corporate performance measures boards and remuneration committees favour. Therefore research objective one was satisfied in that PAT and EBITDA were found to be the most closely linked with corporate performance. Thus it appears boards and remuneration committees tend to favour these measures which would assist not only with CEO motivation but with also with corporate governance requirements. Remuneration committees not including these corporate performance measures could either be eroding CEO motivation or may be captured through managerial power.

6.3 Discussion of Research Proposition Two

Research proposition two, building on proposition one, examined the difference in pay for performance sensitivities once race was introduced as a variable. This was intended to reveal if black and white CEOs were incentivised on different corporate performance measures and the sensitivities thereof. The proposition was structured to indicate that simply a difference was expected without providing a direction. Although the literature doesn't provide a similar or directly comparable study on which to base this, there are numerous studies that suggest that black and white CEOs are remunerated differently on many aspects as discussed in the literature review.

This proposition was born out of the second research objective, as stated in Chapter One, which sought to introduce race as a variable to determine if the race of the CEO had an effect on the degree of sensitivity of remuneration towards corporate performance. Through attempting to answer this research objective an understanding if black CEO performance contracts favour a different set of corporate performance metrics than their white counterparts would be obtained. This will assist in determining partly if minority status, or race, had a favourable or unfavourable effect on remuneration and could indicate the degree of equity between the two groups.

To investigate this proposition the dataset used in proposition one was split on race. This posed the problem of significantly smaller sample sizes within the black CEO group especially in the pre 2008 years. Thus the study of this proposition was limited to 2009 and later. Even so there is doubt as to the representativeness of the black CEO sample since the sample size remains below 20 even during this restricted period.

To discuss the results further within this proposition areas of similarity and areas of difference are defined between the two groups. These are presented separately.

6.3.1 Areas of Similarity

It was clear from the results obtained for proposition two that the same dominate corporate performance measures (EBITDA, PAT and HEPS) are strongly correlated to the remuneration components for both groups. Although the order may change depending on the component EBITDA, PAT and HEPS impacted the remuneration of both groups for fixed and total remuneration. Given the relative lack of comparable studies where pay-for-performance is separated by race in the literature means a direct reference to the body of knowledge is difficult to make in support of the findings.

Intuitively it is reassuring that similarities in the types of corporate performance measures were found between the groups. The existing body of knowledge discussed in the literature review provided a polarised view with respect to race and remuneration that very few similarities were expected to be found.

6.3.2 Areas of Difference

An area of difference noticed in the results of this proposition was the corporate performance measures impacting on the short-term incentives. It was noted that for black CEOs that EBITDA and PAT both accounted for greater than 40% of the variance seen. However for white CEOs these measures did not significantly account for the variance seen in this pay component. Rather ROE and HEPS (both accounting for approximately 12%) featured as significant for white CEOs.

Thus the difference noted is that white CEO's incentives appear more closely linked to shareholders perceptions of performance through the ROE and HEPS measures, while black CEO incentives appear to relate more to operational and managerial perceptions of performance. There is however no basis in the literature that either supports this or argues against it. Given that such a difference has been noted it would be best to explore this more fully through future study.

However there are two points that can be taken before the topic of short-term incentives can be closed. Firstly Bussin (2011) noted that recent developments within the area of short-term incentives have seen the movement away from discretionary bonuses to target-based plans. The short-term incentive findings of this study support this in that significant performance sensitivity was seen within both black and white samples towards this component of remuneration. It is probable to assume that if discretionary-type incentives were pervasive this would lead to insignificant and/or weak sensitivities seen.

Secondly Shaw (2012) study of South African financial sector found that both EBITDA and ROE were the most strongly linked to incentive pay of the CEOs. Although Shaw (2012) doesn't reveal any information regarding the split of race in his study, it partially supports the findings of this study in that one each of these measures were found in both the black and white sample.

A further area of difference that was noted was the magnitude in differences between the R-squared values of each corporate performance measure per race group per remuneration type. The table below provides a summary of the values recorded in the results chapter.

Table 35: Summary R-Squared Values per Race per Measure

| Remuneration Component | Measure | Black | | White | |
|------------------------------|---------|---------|-----------|---------|-----------|
| | | Measure | R-Squared | Measure | R-Squared |
| Fixed Pay | EBITDA | | 50.8% | PAT | 26.2% |
| | PAT | | 42.1% | EBITDA | 21.7% |
| | HEPS | | 32.9% | | |
| Short-term Incentives | EBITDA | | 46.4% | HEPS | 12.6% |
| | PAT | | 41.3% | ROE | 12.0% |
| Total Remuneration | EBITDA | | 46.3% | PAT | 16.2% |
| | PAT | | 41.0% | EBITDA | 14.5% |
| | HEPS | | 15.9% | HEPS | 13.3% |

Thus it can be seen that although similar corporate performance measures impact the

remuneration of each group the degree of variance explanation is different. The differences show that black CEO remuneration is more sensitive, by a factor of 2 to 3 times, than their white counterparts to the corporate performance measures chosen.

The “inverse Matthew effect “ supported by Park and Westphal (2013) and Jensen (2011) in the literature review provides a partial explanation of the difference in sensitivities seen. This effect was used to describe the appearance of increased pay sensitivity of minority CEOs for poor corporate performance. The corporate performance of black-headed organisations versus white-headed organisations was presented early in Chapter Five and is summarised in the table below.

Table 36: Summary of Growth Rates per Year in Median Corporate Performance Measures Post-2009.

| Corporate Performance Measure | Black-Headed 2010 to 2013 (%pa) | White-Headed 2010 to 2013 (%pa) |
|--------------------------------------|--|--|
| ROE | -2.94% | -1.84% |
| PAT | 1.27% | 0.18% |
| HEPS | -1.70% | 4.08% |
| SP | -0.20% | 2.90% |
| EBITDA | -3.01% | -1.43% |

It was evident that post-2009 those companies within the black CEO sample generally under-performed the companies within the white CEO sample on four of the five measures. The above table reflects this as a percentage change per year in the median data point during the period of 2010 to 2013 per race. It must be noted that the intention is not to make any link between race and performance of the organisation as that is beyond the objectives of this study and the analysis done. However given the increased sensitivity reflected within the black CEO sample combined with the poorer median performance could indicate, as Park and Westphal (2013) suggest, that minority CEOs could be more likely to be personally attributed for poor firm performance.

The limitation of the above use of the “inverse Matthew effect” is that it assumes

directional and asymmetrical sensitivity of pay-for-performance between the races. Hence it would serve to explain why black CEO pay sensitivities are more sensitive than their white colleagues to poor corporate performance yet white CEO pay is more sensitive to good corporate performance. Directional sensitivity was not explored in this study and would make for interesting further study.

An alternative explanation is that selection of corporate performance measures chosen in this study are dissimilar to those used by boards and remuneration committees to reward white CEO performance. This would mean that the study failed to capture the correct basket of measures that relate to the remuneration of white CEOs. Should this be the case then it would be possible to conclude only that white and black CEOs are perhaps incentivised on a different set of corporate performance measures.

However the probability of misrepresenting the corporate performance measures for white CEOs is limited given that the selection of measures was based on the extensive and accepted body of knowledge within this field. Recognised studies consulted include De Wet (2013), Tosi et al. (2000), Conyon and He (2011) and Wang and Xiao (2011).

Therefore with the above assumption that the selected basket of corporate performance measures is typical for white CEOs, the apparent lower performance sensitivity of white CEOs remuneration will now be considered in the light of the literature. The literature does provide several possible theories regarding the reasons behind the observed less sensitive remuneration of white CEOs.

A possible consideration could be the inverse to a theory described in the previous pages referred to as the “Matthew effect”. Park and Westphal (2013) note whereby the white CEOs, given their race, are held less liable for poorer performance and are overly attributed for good corporate performance. The annual growth rates in the white-headed corporate performance measures, as shown in Table 36, are also considered poor given that the growth in ROE and EBITDA were negative and that PAT

experienced near-zero growth.

Therefore it appears that, given the poor performance and less sensitive remuneration, that median white CEOs are held less liable for poor corporate performance. Although Show and Zhang (2010) don't account specifically for race their study does support this aspect of the findings that CEO remuneration is generally not punished for poor performance.

Possible other theories, although not directly related to race effects, that could explain reduced sensitivity include managerial power, risk exposure conflict and tenure. Managerial power and ability to capture boards and remuneration committees was discussed under the previous proposition. White CEOs appear to have greater managerial power to reduce their remuneration exposure risk.

Ozkan (2011) finds that tenure and the associated entrenchment effect are linked to lower pay-performance sensitivities. Descriptions of the sample used and described in Chapter Five noted that a greater proportion of white CEOs had longer service than their black counterparts. Thus, given that white CEOs have on average longer tenure and lower pay-performance sensitivity, indicates support in favour of Ozkan (2011).

6.3.3 Proposition Two Concluding Discussion

In concluding the discussion on proposition two several important aspects were found to have support. Firstly, the types of corporate performance measures used between black and white CEOs is similar with three key measures providing the bulk, albeit in a different ranking, of the variance seen within both groups. Thus boards and remuneration committees appear to favour similar types of corporate performance measures irrespective of race.

Secondly, although similar types of measures found favour with both black and white remuneration a large difference in the degree of pay-performance sensitivity was found in the results of Chapter Five. These results found alignment with both the

“Matthew effect” and the “inverse Matthew effect” described in the literature. These effects were used to support and explain the difference in pay-performance sensitivities seen between the black and white samples.

Lastly, longer CEO tenure and managerial power was identified as being a possible reason for the lower pay-performance sensitivity seen by the white CEO group relative to the black CEO group. This also found alignment within the literature given that studies proved the link existed.

Research proposition two was required to examine the difference in pay for performance sensitivities once race was introduced as a variable. This was intended to reveal if black and white CEOs were incentivised on different corporate performance measures and the sensitivities thereof. This proposition was born out of the second research objective, as stated in Chapter One, which sought to introduce race as a variable to determine if the race of the CEO had an effect on the degree of sensitivity of remuneration towards corporate performance.

In summary, given the discussion above surrounding this proposition it is possible to conclude that the research objective that this proposition set out to answer has been achieved. The introduction of race showed no meaningful difference in the specific corporate performance measures chosen but did reveal a sizable difference in the degree of sensitivity seen for each group. Thus race appears to have a correlation with the degree of pay-performance sensitivities recorded.

6.4 Discussion of Research Proposition Three

The final research proposition postulated that there would be a significant difference in the structure and level of remuneration between black and white CEOs. The proposition stopped short of declaring a direction in which the structure and level of remuneration would be in favour of. This was intentional in that the body of knowledge clearly showed two disparate groups of thought on this topic. One group argued that race, as a minority status, is a disadvantage in terms of level and structure of remuneration received while the other noted that race and diversity is a rarity and is thus valued at a premium.

This proposition was born out of the final research objective, as stated in Chapter One, whereby an understanding into the differences, if any, between the level and structure of remuneration between black and white CEO's was required. The intention of this objective, as with the second, was to determine the degree of remuneration equity between black and white CEOs in South Africa. Through answering this objective a clearer picture of the pay differences between black and white CEOs would be obtained.

6.4.1 Level and Structure of Executive Pay by Race

Within the body of knowledge pertaining to the remuneration of minority CEOs there was a distinct divide evident. Some scholars reported that the minority status was a handicap and provided little or even reverse benefit in terms of remuneration, promotion and/or recognition (Hill et al., 2014; Kulich et al., 2011; Park & Westphal, 2013; Selody, 2010). Several other scholars reported the opposite and argued that the rarity of the minority status and the diversity it brings to an organisation should trade at a premium (Richard et al., 2014; Brammer et al., 2007; Miller & del Carmen, 2009).

In Chapter Five the three different statistical tests conducted on the means of the various components of remuneration (see Table 33 and Figure 23) showed no significant differences for race. Thus the mean remuneration received by black and white CEOs wasn't statistically different (within 5% in 2013). This was supported by the

closeness (within 6% in 2013) of the median total remuneration received by each group as seen in Table 19 and 20.

However when the variance within each group is considered the similarity in the remuneration packages starts to diverge. To investigate the variances in the pay between the race groups Chapter Five presented a histogram (see Figure 19), standard deviations (see Table 19 and 20) and ANOVA test results (see Figure 24). All three of these presentations showed sizeable variance difference in the remuneration packages received by each race group. Black CEOs showed far higher variance in their remuneration than their white counterparts.

When the cause of the variance was analysed it was found that the black CEO sample had several outliers distorting the black mean total remuneration. The effects of these outliers were tested and the mean black total remuneration dropped 24% with the outliers neutralised. A simple review of the total remuneration histogram presented as figure 25 shows that this variance is as a result of two separated groups within the black CEO sample. The first group are those CEOs earning less than R10 000 000pa and show a distribution that could be considered normal. The separation to the second grouping of black CEOs was R6 000 000. This gap between the two groupings could be considered large.

Referring the variance seen within black CEO sample back to the literature considered in Chapter Two draws the following interpretations. Firstly it could be likely that the outliers are in fact just outliers and do not accurately depict the remuneration faced by the average black CEO. In such a case the findings would support the presence of the “inverse Matthew effect” facing the average black CEO. The large drop in the mean total remuneration seen with the black CEO outliers removed supports this. The recalculation of the average black CEO pay shows earnings now R1 000 000pa less than the average white CEO.

Continuing with the above assumption that the black CEO sample contained powerful outliers indicates that the average black CEOs may earn less than their white

counterparts. This would support Kulich et al. (2011) findings that minority status is in fact an invisible barrier preventing equitable compensation. By extension this could further support Scheepers et al. (2006) and indicate the presence of intergroup relations theory whereby easily discoverable features, such as race, play a greater role than merit-based capabilities or performance when setting remuneration and rewards.

The above discussion is generally against recent findings made by Hill et al. (2014) within the USA who conclude that the economic resource-based argument outweighed the intergroup relations theory. However Hill et al. (2014) findings could perhaps explain the existence of the powerful outliers in the black CEO sample. The boards and remuneration committees of these respective firms may follow the economic resource-based argument whereby the minority status of talented black CEO is a scarce resource and should trade at such levels. Such firms, by extension, could subscribe to the additional value provided by diversity in the C-suite as noted by Richard et al. (2007) and Miller and del Carmen (2009).

6.4.2 Proposition Three Concluding Comments

In summary, the research objective of this proposition was to obtain an understanding into the differences, if any, between the level and structure of remuneration between black and white CEO's. The intention of this objective was to determine the degree of remuneration equity between black and white CEOs in South Africa.

Statistically no significant difference was found between any of the remuneration components and race in the two samples studied. However the remuneration variances seen across the black sample were greater than those seen within the white CEO group. The findings of no statistical significant difference within the various components remuneration of black and whites CEOs falls largely within the divide reported on in the literature and were unexpected to some degree.

The lack of racial significance on CEO remuneration was further obtained once each group's remuneration was controlled for firm size as suggested by the literature. This

was an important litmus test and showed that firm size was a far more significant factor in CEO remuneration than race. This is well supported by many studies including Tosi et al. (2000).

Thus the research objective of the position can be considered complete in that an understanding of the differences in level and structure of between white and black CEOs was obtained. It was concluded that, despite the large variances seen within black CEO remuneration, no significant differences existed in the level and structure of the various remuneration components between each group. Thus the proposition of the existence of a significant difference is rejected.

6.5 Summary of Results Discussion

The discussion presented above unpacked the results seen in Chapter Five. The aim was to provide the many important links to the recognised literature and other important aspects of the study. In doing so would provide the needed context and meaning of the results found.

Proposition one concluded with PAT and EBITDA being found to be the most strongly correlated with the various components of CEO remuneration of all the independent variables tested. A close analysis of the various figures presented in Chapter Five of the study showed PAT to ultimately have the highest correlation across the period and remuneration components. These constructs were deemed to have strong correlation strength that was largely pervasive across all the remuneration components.

Thus although the strongest correlation was an accounting-based corporate performance measure it was closely balanced with an economic-based measure. This was widely recommended in the literature and was reassuring to see that firms within South Africa are generally considering non-accounting-based measures of corporate performance in determining remuneration.

An interesting finding within proposition one was the increasing significance and

relationship strength in ROE and HEPS with executive remuneration, especially since 2007, is further reassuring. The reason for this being reassuring is that both measures relate to how shareholders view the performance of the business and thus is possibly a sign of the closer alignment between the financial fate of shareholders and CEOs. Thus it indicates the willingness of boards and remuneration committees to address the principle-agent problem.

Reviewing proposition two revealed several important aspects were found to have support. Firstly, the types of corporate performance measures used between black and white CEOs is similar and thus boards and remuneration committees appear to favour similar types of corporate performance measures irrespective of race.

An interesting finding to have formed within proposition two was the noticeable difference in general between the magnitudes of the pay-for-performance sensitivities of the two groups. Greater sensitivity was noted for the black CEOs than for the white CEOs. Support for this was found through the possible presence of both the “Matthew effect” and the “inverse Matthew effect” in explaining the increased black remuneration sensitivity. Tenure and managerial power were identified as possible reasons for the decreased white remuneration sensitivity to corporate performance.

Turning towards proposition three, statistically no significant difference was found between any of the remuneration components and race in the two samples studied. However the remuneration variances seen across the black sample were greater than those seen within the white CEO group. The lack of racial significance on CEO remuneration was further obtained once firm size was controlled for. This was an important litmus test and showed that firm size was a far more significant factor in CEO remuneration than race.

An interesting aspect noted within proposition three was the fact that the findings fell within the divide identified within the literature. The presence of possible equity in the remuneration levels between black and white CEOs was unexpected but welcomed.

In summary, CEO remuneration is a complex topic before race was introduced as a compounding factor. This was examined in Chapter One and this complexity did appear in the results seen. Black CEO and white CEO remuneration showed similarities around the types of corporate performance chosen by boards to remunerate them. The growing importance of non-accounting-based corporate performance measures was seen in both groups continuing the similarities. Further to this no significant difference was found to exist between the level and structure of remuneration between the groups. This could indicate the presence of remuneration equity between black and white CEOs.

Important differences between the two groups were also found. Firstly black CEO remuneration was more sensitive to corporate performance and having a greater level of variance than their white fellow CEOs.

The following chapter will conclude the study through a process of drawing together the main findings for the purpose of creating meaningful recommendations based thereupon. During the course of the research many further questions presented themselves. These will be distilled into recommendations for future study.

Chapter 7: Conclusion

7.1 Introduction

In this chapter the main findings of the research are highlighted and used for the basis of constructing the relevant conclusions, implications and recommendations. Suggested areas for future research are also presented and then the final concluding comments drawn.

The primary objective of the study was to determine the effect of race on CEO remuneration within the context of South Africa. This context is a complex fabric of historic discriminatory labour policies and practises and the current growing income inequality. The topic of CEO remuneration has become a sensitive one given that it highlights both of the issues addressed in the previous sentence. The race of the CEO can be seen as an informal proxy for the degree of transformation of the organisation and indeed South African business in general. Apparent excessive CEO pay packages published in the common media have in the same way become an informal proxy for income equality.

7.2 Research Findings

Therefore CEO remuneration and its links to corporate performance have become an actively researched area not only in South Africa but globally. Pay-performance sensitivity analysis attempts to test the strength of the link between pay and performance given that performance related pay is more palatable than the alternative.

The research looked at the pay-performance sensitivities and pay levels by race to investigate if any significant insights on the effects of race on this relationship could be gained. This would then be used to draw inferences on whether CEO remuneration could be considered equitable in terms of race. In order to accomplish this, the right set of corporate performance measures firstly needed to be determined and tested. The literature consulted in Chapter Two assisted in identifying measures known to

impact on remuneration.

- All components of South African CEO remuneration studied were found to strongly correlate with PAT and EBITDA. Despite this also being true for short-term incentives, ROE and HEPS saw a growing correlation with this component since 2010, which indicated a shift towards shareholder-focused measures. No significant correlation with SP was found in any of the components of remuneration studied.
- The research found an overall acceptable balance between accounting and non-accounting-based measures, which was deemed reassuring, given the trend within developing countries to be over reliant on the former.

The above finding was made on the premise of excluding race as a variable. This was done to identify the corporate performance sensitive measures for all CEOs and provide a base case before race was introduced. The introduction of race as a variable produced the following findings:

- Black and white CEO remuneration shows sensitivity to similar corporate performance measures (PAT, EBITDA and HEPS) indicating race didn't significantly alter which corporate performance measures were linked to remuneration.
- Black CEO remuneration was shown to be significantly more sensitive to the above performance measures than their white counterparts.

The above lead into the final aspect of the study which involved analysing the level and structure of black and white CEO remuneration in absolute terms. This was investigated in order to provide evidence regarding the equity of executive pay on absolute terms without the effect of corporate performance.

The following findings were made:

- No significant difference was found between black and white CEO remuneration for any of the components thereof.
- However black CEO remuneration was found to be significantly more variable than their white counterparts.

The above six points represent the primary core findings of the research. There are several secondary or peripheral findings that were during the course of the research and are presented below:

- Reviewing the mean pay-performance sensitivity figures over the ten year period study revealed no meaningful advancement or increase in sensitivity. As Shaw (2012) notes pay-performance sensitivities will vary in line with macroeconomic trends, which was evident in Figure 21. Thus it was found that pay-performance sensitivities were not improving in general.
- Firm size was shown to have a greater effect on remuneration received by CEOs than the race of the CEO.
- Black CEO short-term incentives were found to more sensitive to internal management-based measures (PAT and EBITDA) while white CEO short-term incentives showed particular sensitivity to shareholder-based measures of ROE and HEPS.
- Black CEOs mean total remuneration in 2013 was R 8 751 000 which had been growing at 9.7% since 2008. White CEO mean total remuneration was R 8 278 000 in the same year and experienced a slower growth rate (7.3%) over the same period.

The above concludes the summary of the primary and secondary findings of this study. From these findings the research conclusions and management implications will be unearthed.

7.3 Research Conclusions and Implications

The research findings can be summarised into the following key conclusions:

- Pay-performance sensitivities for South African CEOs were concluded to contain a balance of accounting-based and non-accounting-based measures of corporate performance. It is therefore concluded that South Africa boards and remuneration committees have matured beyond the simple practise of utilising accounting-based measures to determine the level of CEO remuneration.
- Pay-performance sensitivity overall in South Africa showed no material improvement over the period studied. Fluctuations seen appear to relate more to the macroeconomic trends affecting South Africa than to adherence to the growing corporate governance call to improve links between pay and performance.
- In absolute terms there is no significant difference in the level of remuneration received by black and white CEOs. This was true for all of the various components of remuneration studied. Therefore it is concluded that in absolute terms remuneration equity appears to be present between black and white CEOs.
- Black and white CEOs show sensitivity to a similar basket of corporate performance measures, which too represented a balance between accounting-based and non-accounting-based. Therefore it is concluded that race doesn't affect the board's selection of corporate performance measure against which to incentivise the CEO.

- Black CEO pay was significantly more sensitive and variable than their white CEO counterparts. Therefore it is concluded that boards and remuneration committees appear to structure black CEO remuneration with a greater element of performance sensitivity. Thus it appears that race has an effect on this aspect of CEO remuneration setting.

The above items represent the key conclusions. It is important to now draw out the relevant and probable implications of the listed conclusions:

- King III compels boards and remuneration committees to ensure remuneration of directors is fair and reasonable, sensitive to performance and aligned with the strategy of the organisation. Obtaining the desired performance sensitivity would require remuneration committees to advise on the selection of the proper corporate performance measures against which to accomplish this. Should the incorrect measures be chosen then boards and remuneration committees would find it difficult not only to address the principle-agent problem but also to correctly incentivise and motivate. The study found a balance of accounting and non-accounting measures combined with a growing importance of shareholder-focused measures.
- Further to the above, the literature strongly recommended the movement away from accounting-based measures to market or economic-based measures. The several developed countries reviewed in the literature had certainly matured to this extent already. The implication for remuneration committees are that this maturing trend has begun in South Africa and those not adopting new measures may not find it possible to ensure a degree of optimal contracting with CEO candidates. The legacy of overreliance on accounting-based methods, although relatively easy to define and measure, may continue to foster weaker contracting positions for boards.
- It would be naive to assume black and white CEOs are perfectly bound within the same labour market. There certainly would be differences in how boards

would contract performance with them. This was apparent in the sensitivity findings of the study. The study also found that no significant differences in the means were found across the various remuneration components. This apparent equity, although reassuring, cannot underpin for long a vacation that is largely behind the transformation curve. Given South Africa's past and the transformation requirements of our future should see black CEO talent trading at a premium. The implication for business is that good black CEO talent should become more expensive to procure or retain as the benefits of diversity discussed in literature become more pervasive or the pressure for transformation mounts.

The above items are some of the key implications identified in the conclusion of this study. This list is by no means exhaustive however carries the more poignant aspects.

7.3 Recommendations

With the findings, conclusions and implications in mind the following recommendations are put forward for consideration:

- Consideration should be given within the organisation to what corporate performance measures should the CEO be measured and remunerated against. Firstly, such measures need to look beyond the normal accounting-based types and include both market and economic-based measures. This balance will ensure that the CEO not only acts to achieve accounting profit but also creates long-term value for the organisation. Such measures should also be aligned with the strategy of the organisation and relevant to industry context in which the organisation operates.
- Corporate history contains many examples of inappropriately incentivised CEOs and the effects thereof. An important element not directly covered within this study is the inclusion of risk-based measures within the basket of measures impacting remuneration. The risk context of the organisation should be quantified with an appropriate measure and included as a counterbalance to

ensure organisational performance achieved is long-term.

- Once the organisation has identified the suitable and relevant measures these need to set with realistic and fairly achievable targets in terms of the desired pay-performance sensitivities. Such internal pay-performance sensitivity needs to be calculated and analysed in a regular fashion including benchmark comparisons made with appropriate comparators. Further to the above such pay-performance sensitivity analysis and desired targets should be presented as part the remuneration report contained with the annual financial reports. This form of disclosure would allow a certain level of public accountability, on part of the board, to ensure reasonable and justifiable CEO remuneration.
- Boards looking to appoint black or minority CEOs should continue to remunerate in a equitable and fair manner and be aware of such mental biases such as the “inverse Matthew effect” and other social out-group biases especially when evaluating performance. If the above recommendations are implemented in conjunction with this then CEO performance-sensitive remuneration can be largely determined off an objective base.

7.4 Suggestions for Further Research

The study revealed interesting findings in its attempt to answer the research objectives. Perhaps equally important are the questions this study poses in return. Thus through conducting this study several areas requiring further research were identified and are described briefly below:

- The literature reviewed described the existence of the “inverse Matthew effect” whereby pay-for-performance sensitivities are directional and asymmetrical when stratified by the race of the executive as discussed by Park and Westphal (2013). The secondary data set utilised for this study would be able to provide the required data to answer the research objective of whether the “inverse Matthew effect” exists in South African senior executive pay in a

more focused study. Providing an answer to this objective would assist in furthering the debate of whether executive remuneration in South Africa can be considered equitable between races or not.

- The topic of executive remuneration within proper corporate governance is gaining momentum each day. In South Africa King IV will be released in the coming year that will challenge every organisation to the next level. An investigation is required into whether pay-for-performance sensitivities could be used to identify individual companies that may have undue managerial power or captured boards. Such a study could be used to create an index of types to begin on the road of trying to quantify corporate governance conformance.
- The effect, if any, of SP movement on CEO remuneration is not clear from the literature consulted in this study. Bugeja et al. (2012) and Show and Zhang (2010) found contrasting results and yet within this study no significant effect was recorded. The significance of this is that SP movement is one of the primary generators or distractors of shareholder wealth. Intuitively this measure should impact more directly on the remuneration and incentives of CEOs. Beyond being just a mechanism to address the principle-agent issue it would also increase the performance sensitivity of the CEOs pay in the interests of shareholders. King III calls for fair and reasonable pay-performance sensitivity.

The above items defined the recommended further studies required in order to build upon this study and expand the body of knowledge.

7.5 Concluding Comments

The arena of executive remuneration in South Africa shall continue to create much debate now and into the future. As inequality and economic hardship increase so to does the potential outrage shown towards executive remuneration. The argument is made that high pay is balanced with high performance, or at least should be. South African corporate governance codes in fact require that executive remuneration are reasonably linked to the performance of the organisation.

The study found that links certainly are present between pay and performance for South African CEOs. In fact South Africa showed a level of maturity in that strong correlations were found with measures beyond the normal accounting-based types. This indicated that boards and remuneration committees understand that performance cannot simply be defined according to the prevailing accounting standards and treatments. Market or economic-based measures define performance in terms of value created economically and to the long-term benefit of the shareholders and stakeholders.

The contrast of black and white CEO revealed many similarities and some interesting differences. The main finding of the study was that mean remuneration was not found to be affected by the race of the CEO. Therefore a certain degree of equality is suggested in the results of this study. An example of an interesting difference is degree by which pay-performance sensitivity differed between the races with black CEO remuneration being significantly more sensitive to corporate performance. The relative insensitivity of white CEO remuneration was of somewhat concern and could point to managerial power of this group.

In final conclusion the need to transform the top levels of executive management is certainly required considering the low representation of black CEOs currently. The lagging transformation, low representation and the similar remuneration may indicate that South African public organisations have yet to fully realise the benefits of diversity in the CEO role. On the face of it black CEOs of good talent should trade at a premium.

Reference List

- 21st Century Pay Solutions. (2010). Global reward trends. Johannesburg.
- Abowd, J. M. (1990). Does performance-based managerial compensation affect corporate performance. *Industrial and Labour Relations Review*, 43, 52-73.
- Adams, R. B., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of financial economics*, 94(2), 291-309.
- Allen, F. (2005). Corporate governance in emerging economies. *Oxford Review of Economic Policy*, 21(2), 164-177.
- Anderson, R. C., Reeb, D. M., Upadhyay, A., & Zhao, W. (2011). The economics of director heterogeneity. *Financial Management*, 40(1), 5-38.
- Baker, G. P., & Hall, B. J. (1998). CEO incentives and firm size. *Journal of Labor Economics*, 22(4), 767-798.
- Baker, G. P., Jensen, M. C., & Murphy, K. J. (1988). Compensation and incentives: Practice vs. theory. *The Journal of Finance*, 43(3), 593-616.
- Barkema, H. G., & Gomez-Mejia, L. R. (1998). Managerial Compensation and Firm Performance: A General Research Framework. *Academy Of Management Journal*, 41(2), 135-145.
- Barron, C. (2014). Let shareholders set executive pay, says DA. Business Day Live. Retrieved May 04, 2014, from <http://www.bdlive.co.za/businessimes/2014/05/04/let-shareholders-set-executive-pay-says-da>
- Basel Committee on Banking Supervision. (2011). Range of methodologies for risk and performance alignment of remuneration. Basel: Bank for International Settlements.
- Bebchuk, L. A., & Fried, J. M. (2003). Executive compensation as an agency problem. *Journal of Economic Perspectives*, 17(3), 71-92.
- Bebchuk, L. A., Fried, J. M., & Walker, D. I. (2002). Managerial power and rent extraction in the design of executive compensation. *The University of Chicago Law Review*, 69(3), 751-846.
- Blumberg, B., Cooper, D. R., & Schindler, P. S. (2008). *Business research methods*. Maidenhead: McGraw Hill.
- Bonorchis, R. (2012). Boardman's R43m makes him SA's best-paid bank boss.

Retrieved May 04, 2014, from
<http://www.bdlive.co.za/articles/2010/04/29/boardman-s-r43m-makes-him-sa-s-best-paid-bank-boss>

- Bradley, S. (2012). *Chief Executive Officer compensation and the effect on company performance in a South African context*. Rhodes University, Grahamstown.
- Brammer, S., Millington, A., & Pavelin, S. (2007). Gender and ethnic diversity among UK corporate boards. *Corporate Governance: An International Review*, 15(2), 393-403.
- Bruce, A., Buck, T., & Main, B. G. (2005). Top executive remuneration: A view from Europe. *Journal of Management Studies*, 42(7), 1493-1506.
- Bugeja, M., da Silva Rosa, R., Duong, L., & Izan, H. (2012). CEO compensation from M&As in Australia. *Journal of Business Finance & Accounting*, 39(9-10), 1298-1329.
- Bussin, M. (2011). *The remuneration handbook for Africa*. Randburg: Knowres Publishing (Pty) Ltd.
- Bussin, M. (2013). *Grasping the thorny issue of executive remuneration*. Johannesburg.
- Canarella, G., & Gasparyan, A. (2008). New insights into executive compensation and firm performance: Evidence from a panel of "new economy" firms, 1996-2002. *Managerial Finance*, 34(8), 537-554.
- Carter, D. A., D'Souza, F., Simkins, B. J., & Simpson, W. G. (2010). The gender and ethnic diversity of US boards and board committees and firm financial performance. *Corporate Governance: An International Review*, 18(5), 396-414.
- Canyon, M. J., Fernandes, N., Ferreira, M. A., Matos, P., & Murphy, K. J. (2011). *The executive compensation controversy: a transatlantic analysis*. Ithaca, NY: Institute for Compensation Studies.
- Canyon, M. J., & He, L. (2011). Executive compensation and corporate governance in China. *Journal of Corporate Finance*, 17(4), 1158-1175.
- Cooper, M. J., Gulen, H., & Rau, P. R. (2010). *Performance for pay? The relation between CEO incentive compensation and future stock price performance*. University of Cambridge. Cambridge, MA.
- Core, J. E., Holthausen, R. W., & Larcker, D. F. (1999). Corporate governance, chief executive officer compensation, and firm performance. *Journal of financial*

- economics*, 51(3), 371-406.
- Crotty, J. (2009). Structural causes of the global financial crisis: a critical assessment of the 'new financial architecture'. *Cambridge Journal of Economics*, 33(4), 563-580.
- De Wet, J. (2013). Executive compensation and the EVA and MVA performance of South African listed companies. *Southern African Business Review*, 16(3), 57-80.
- Department of Economic and Social Affairs-Statistics Division. (2012). World Economic Situation and Prospect: Country Classification. New York.
- Dezsö, C. L., & Ross, D. G. (2012). Does female representation in top management improve firm performance? A panel data investigation. *Strategic Management Journal*, 33(9), 1072-1089.
- Edmans, A., & Gabaix, X. (2009). Is CEO pay really inefficient? A survey of new optimal contracting theories. *European Financial Management*, 15(3), 486-496.
- Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *Journal of Law and Economics*, 301-325.
- Firer, C., Ross, S., Westerfield, R., & Jordan, B. (2012). *Fundamentals of Corporate Finance 5th South African Edition*: McGraw-Hill Book Company, Sydney, Australia.
- Frydman, C., & Jenter, D. (2010). CEO compensation. Cambridge, MA: National Bureau of Economic Research.
- Gerhart, B., & Milkovich, G. T. (1990). Organizational differences in managerial compensation and financial performance. *Academy Of Management Journal*, 33(4), 663-691.
- Gevers, E. (2012). *Adherence to the spirit of corporate governance: The ethics of executive remuneration*. University of Johannesburg, Johannesburg.
- Ghosh, A. (2006). Determination of Executive Compensation in an Emerging Economy. Evidence from India. *Emerging Markets Finance and Trade*, 42(3), 66-90.
- Gneezy, U., Meier, S., & Rey-Biel, P. (2011). When and why incentives (don't) work to modify behavior. *The Journal of Economic Perspectives*, 25(4), 191-209.
- Goodman-Bhyat, D. (2013). Jack Hammer Executive Report (Vol. 1). Cape Town: Jack Hammer Executive Headhunters.
- Graham, M., & Winfield, J. (2007). *Understanding financial statements* (2nd ed.). Cape

Town: Cape Business Seminars.

- Hackman, J. R., & Porter, L. W. (1968). Expectancy theory predictions of work effectiveness. *Organizational Behavior and Human Performance*, 3(4), 417-426.
- Hagendorff, J., & Vallascas, F. (2011). CEO pay incentives and risk-taking: Evidence from bank acquisitions. *Journal of Corporate Finance*, 17(4), 1078-1095.
- Hartley, C., Firer, C., & Ford, J. C. (2011). *Business Accounting and Finance for Managers: An Introduction* (5th SA Edition ed.). Johannesburg: Witwatersrand University Press.
- Hauke, J., & Kossowski, T. (2011). Comparison of values of Pearson's and Spearman's correlation coefficients on the same sets of data. *Quaestiones Geographicae*, 3, 87-93.
- Hewstone, M., Rubin, M., & Willis, H. (2002). Intergroup bias. *Annual review of psychology*, 53(1), 575-604.
- Hill, A. D., Upadhyay, A. D., & Beekun, R. I. (2014). Female and Ethnically Diverse Executives Endure Inequity in the CEO Position or Do They Benefit from Their Minority Status? An Empirical Examination. *Strategic Management Journal*.
- Hillman, A. J., Cannella, A. A., & Harris, I. C. (2002). Women and racial minorities in the boardroom: how do directors differ? *Journal of Management*, 28(6), 747-763.
- Hillman, A. J., Shropshire, C., & Cannella, A. A. (2007). Organizational predictors of women on corporate boards. *Academy Of Management Journal*, 50(4), 941-952.
- Hofstee, E. (2011). *Constructing a good dissertation: A practical guide to finishing a master's, MBA or PhD on schedule*. Sandton: EPE.
- Hölmstrom, B. (1979). Moral hazard and observability. *The Bell Journal of Economics*, 10(1), 74-91.
- IoDSA. (2009). *King Report on Governance for South Africa 2009*. Johannesburg: Institute of Directors of Southern Africa.
- IoDSA. (2013). A guide to the application of King III: Remuneration *Practise Notes* (2nd ed.). Johannesburg: Institute of Directors in Southern Africa.
- Jensen, & Meckling. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, 3(4), 305-360.
- Jensen, & Murphy. (1990). CEO incentives—It's not how much you pay, but how.

- Harvard Business Review*, 68(3), 138-153.
- Jensen, M., Kim, B. K., & Kim, H. (2011). The importance of status in markets: A market identity perspective. *Status in management and organizations*, 48(2), 87-117.
- Kaplan, S. N. (2008). Are US CEOs Overpaid? *The Academy of Management Perspectives*, 22(2), 5-20.
- Kohn, A. (1988). Incentives can be bad for business. *Inc.*, 10(1), 93.
- Kohn, A. (1993). Why incentive plans cannot work. *Harvard Business Review*, 54-63.
- Korman, A. K., Glickman, A. S., & Frey, R. L. (1981). More is not better: Two failures of incentive theory. *Journal of Applied Psychology*, 66(2), 255.
- Kulich, C., Trojanowski, G., Ryan, M. K., Alexander Haslam, S., & Renneboog, L. D. (2011). Who gets the carrot and who gets the stick? Evidence of gender disparities in executive remuneration. *Strategic Management Journal*, 32(3), 301-321.
- Laffort, J., & Martimort, D. (2002). *The theory of incentives*. Princeton, NJ: Princeton University Press.
- Larcker, D. F., & Tayan, B. (2011). Seven myths of corporate governance *Stanford University Closer Look Series: Topics, Issues and Controversies in Corporate Governance*. Stanford, CA: Rock Center for Corporate Governance.
- Lawler III, E. E., & Suttle, J. L. (1973). Expectancy theory and job behavior. *Organizational Behavior and Human Performance*, 9(3), 482-503.
- Lehohla, P. (2013). Mid-year population estimates: 2013. Pretoria: Statistics South Africa.
- Lehohla, P. (2014). Quarterly Employment Statistics: March 2014. Pretoria: Statistics South Africa.
- Lippert, R. L., & Porter, G. (1997). Understanding CEO pay: A test of two pay-to-performance sensitivity measures with alternative measures of alignment and influence. *Journal of Business Research*, 40(2), 127-138.
- Lunenburg, F. C. (2011). Expectancy Theory of Motivation: Motivating by Altering Expectations. *International Journal of Management, Business And Administrations Volume*, 15(1), 1-6.
- Malmendier, U., & Tate, G. (2009). Superstar ceos. *The Quarterly Journal of Economics*, 124(4), 1593-1638.

- Masiteng, K. (2014). Quarterly Labour Force Review: Quater 1 2014. Pretoria: Statistics South Africa.
- Matsumura, E. M., & Shin, J. Y. (2005). Corporate governance reform and CEO compensation: Intended and unintended consequences. *Journal of business ethics*, 62(2), 101-113.
- McDonald, M. L., & Westphal, J. D. (2013). Access Denied: Low Mentoring of Women and Minority First-Time Directors and Its Negative Effects on Appointments to Additional Boards. *Academy Of Management Journal*, 56(4), 1169-1198.
- Merton, R. K. (1968). The Matthew effect in science. *Science*, 159(38), 56-63.
- Miller, T., & del Carmen Triana, M. (2009). Demographic diversity in the boardroom: Mediators of the board diversity–firm performance relationship. *Journal of Management Studies*, 46(5), 755-786.
- Mitchell, R., Agel, B., & Wood, D. (1997). Toward a theory of stakeholder identification and salience. *Academy of management Review*, 22(4), 853-886.
- Mobbs, S. (2013). CEOs under fire: The effects of competition from inside directors on forced CEO turnover and CEO compensation. *Journal of Financial and Quantitative Analysis*, 48(03), 669-698.
- Muijs, D. (2010). *Doing quantitative research in education with SPSS*. New York, NY: Sage.
- Nel, M. (2012). *Sensitivity of guaranteed cost to company of CEOs in the South African retail and consumer good sector*. Gordon Institute of Business Science, University of Pretoria, Illovo.
- Ngobese, C. (2013). Politicsweb - SASOL CEO`s R53,7m pay package outrageous - NUMSA - PARTY. Retrieved May 04, 2014, from <http://www.politicsweb.co.za/politicsweb/view/politicsweb/en/page71654?oid=419433&sn=Detail>
- Nzukuma, K. C., & Bussin, M. (2011). Job-hopping amongst African Black senior management in South Africa: original research. *SA Journal of Human Resource Management*, 9(1), 1-12.
- O'Reilly, C. A., & Main, B. G. (2010). Economic and psychological perspectives on CEO compensation: a review and synthesis. *Industrial and corporate change*, 19(3), 675-712.

- Ozkan, N. (2011). CEO compensation and firm performance: an empirical investigation of UK panel data. *European Financial Management*, 17(2), 260-285.
- Pallant, J. (2010). *SPSS survival manual: A step by step guide to data analysis using SPSS*. Maidenhead: McGraw-Hill International.
- Park, S. H., & Westphal, J. D. (2013). Social Discrimination in the Corporate Elite How Status Affects the Propensity for Minority CEOs to Receive Blame for Low Firm Performance. *Administrative Science Quarterly*, 58(4), 542-586.
- Rashid, A. (2013). Corporate governance, executive pay and firm performance: Evidence from Bangladesh. *International Journal of Management*, 30(2), 556-575.
- Reinard, J. C. (2006). *Communication research statistics*. New York, NY: Sage.
- Richard, O. C., Murthi, B., & Ismail, K. (2007). The impact of racial diversity on intermediate and long-term performance: The moderating role of environmental context. *Strategic Management Journal*, 28(12), 1213-1233.
- Salkind, N. J. (2012). *Statistics for people who (think they) hate Statistics: Excel 2010 Edition* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- SARS. (2012). 2012 Tax Statistics. Pretoria: National Treasury and the South African Revenue Service.
- Saunders, M., & Lewis, P. (2011). *Doing research in business and management : an essential guide to planning your project*. Harlow: Financial Times Prentice Hall.
- Scheepers, D., Spears, R., Doosje, B., & Manstead, A. S. (2006). Diversity in in-group bias: structural factors, situational features, and social functions. *Journal of personality and social psychology*, 90(6), 944.
- Schwab, K. (2013). The global competitiveness report 2012–2013. *Geneva, Switzerland*.
- Scott, W. (2001). *Institutions and Organizations*. Thousand Oaks, CA: Sage.
- Secombe, A. (2014). Amplats CEO justifies his pay. Retrieved 17/07/2014, 2014, from <http://www.bdlive.co.za/business/mining/2014/05/14/amplats-ceo-justifies-his-pay;jsessionid=7709B5DB111440D8271EAFEFC7381532.present1.bdfm>
- Selody, K. (2010). Board Independence and the Gender Pay Gap for Top Executives. Ithaca, NY: Compensation Research Initiative.
- Shaw, P. (2012). *CEO pay-performance sensitivity in South African financial services companies*. Gordon Institute of Business Science, University of Pretoria, Illovo.

- Show, K., & Zhang, M. (2010). Is CEO cash compensation punished for poor firm performance? *The Accounting Review*, *85*(3), 1065-1093.
- Theunissen, M., & Oberholzer, M. (2013). An Application Of Data Envelopment Analysis To Benchmark CEO Remuneration: A South African Study. *Journal of Applied Business Research (JABR)*, *29*(5), 1509-1522.
- Tosi, H. L., Werner, S., Katz, J. P., & Gomez-Mejia, L. R. (2000). How much does performance matter? A meta-analysis of CEO pay studies. *Journal of Management*, *26*(2), 301-339.
- Tregenna, F., & Tsela, M. (2012). Inequality in South Africa: The distribution of income, expenditure and earnings. *Development Southern Africa*, *29*(1), 35-61.
- Van Blerck, T. G. (2012). *The relationship between executive remuneration at financial institutions and economic value added*. Gordon Institute of Business Science, University of Pretoria, Illovo.
- Van Melle Kamp, C., & Hofmeyr, K. (2013). CEO route to the top: The South African experience. Johannesburg: Spencer Stuart & Gordon Institute of Business Science.
- Van Zyl Smit, J., & Nel, S. (2010). Executive compensation. *Accountancy SA*, *11*(2), 14-16.
- Wade, J. B., Porac, J. F., Pollock, T. G., & Graffin, S. D. (2006). The burden of celebrity: The impact of CEO certification contests on CEO pay and performance. *Academy Of Management Journal*, *49*(4), 643-660.
- Wang, K., & Xiao, X. (2011). Controlling shareholders' tunneling and executive compensation: Evidence from China. *Journal of Accounting and Public Policy*, *30*(1), 89-100.
- Ward, M., & Price, A. (2006). Turning vision into value. *Pretoria: Van Schaik Publishers*.
- Weinstock, M. (2014). Celebrating diversity. *Hospitals & health networks/AHA*, *88*(4), 9.
- Wessel, D. (2006). With CEO pay, size does matter. *Wall Street Journal*. Retrieved February, 11, 2006, from http://online.wsj.com/article_print/SB116242171357310677.html
- Whitfield, B. (2013, 19 December 2013). CEO in pay-cut shock. *Finweek*.
- Zhou, X. (2000). CEO pay, firm size, and corporate performance: evidence from

Canada. *Canadian Journal of Economics/Revue canadienne d'économique*, 33(1), 213-251.

Zweigenhaft, R. L., & Domhoff, G. W. (2006). *Diversity in the power elite: How it happened, why it matters*. Lanham, MD: Rowman & Littlefield Publishers.

Zweigenhaft, R. L., & Domhoff, G. W. (2011). *The New CEOs: Women, African American, Latino, and Asian American Leaders of Fortune 500 Companies*. Lanham, MD: Rowman & Littlefield Publishers.