Corporate governance and dividend policy: evidence from JSE-listed companies in South Africa

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ABSTRACT

This study assessed the effect of corporate governance on dividend payout decisions of South African publicly listed companies. The study aimed at assessing whether corporate governance mechanisms, particularly board structure (size, independence and gender composition), CEO's duality and institutional ownership predict dividend. The context of this study is the importance of corporate governance mechanisms to alleviate the agency conflict that emerges because of the separation of the owners (shareholders) from the managers (agents).

Panel data covering the period of 2008 – 2012 was collected from the annual financial statements of 40 companies on the Johannesburg Stock Exchange (JSE), ranked as top in 2012. The standardised financial information to measure the dependent and control variables was consolidated from the McGregor BFA database. Data analysis, including descriptive, correlation and panel regression was performed using SPSS and R statistical software.

The results of the study show that strong evidence exists to suggest a positive association between gender diversification and dividend payout decisions of South African publicly listed companies. This finding endorses the understanding that the presence of women on the board reduces agency cost.

The finding also revealed that board size has a significant effect on dividend decisions in JSE-listed companies. Companies with smaller board size showed a strong governance structure to push for higher dividend pays. The other corporate governance variables, such as institutional ownership, independent non-executive composition on board and CEO's duality exhibited insignificant effects on payout. Therefore, the variation on dividend is not explained by any change in those variables. The result also documented that control variables such as profitability, growth, firm size, firm risk and leverage showed a significant effect and influenced dividend pay.

Key words: Corporate governance, Agency theory, Dividend payout, Board structure

DECLARATION

I, Azeb Desta Gebreselassie, declare that this research report is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Azeb Desta Gebreselassie

Signed at ……

On the …….. day of …… 20…..

DEDICATION

This study is dedicated to my family.

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CHAPTER 1. INTRODUCTION

1.1 Purpose of the Study

The purpose of this research was to assess the effect of corporate governance on dividend payout decisions of companies listed on the Johannesburg Stock Exchange (JSE). The study aimed at assessing whether corporate governance mechanisms, particularly board structure (size, independence and gender composition), CEO's duality and institutional block shareholders that own at least 3% of firm's shares (institutional ownership) have an effect on dividend payout decisions.

1.2 Context of the Study

Governance is a critical factor that can determine the success and failure of a business and the public sector. Researchers correlate the recent financial crisis that followed the turmoil of the financial and banking sector, with failure of leadership (Heath & Norman, 2004). The importance of good corporate governance in managing risk, improving performance, valuation and capitalisation and dividend payout policy has been one of the major areas of research.

To discipline the corporate sector and create an ethical culture in businesses, good governance principles were developed in different countries. These corporate governance standards and principles have mainly been prompted as the result of worldwide privatisation, corporate scandals and failures, the East Asian crisis, the pension fund reform and growth of private savings (Becht, Bolton, & Röell, 2003)

Grant (2003) indicates that the corporate revolution in the United States of America (USA) and the idea of incorporations that limited liabilities of shareholders to business assets during the industrialisation episode changed the private ownership to outside ownership. Active participation and control of private owners in their own business was detached and direct management was

transferred to directors and managers. This transfer of power to management created the agency theory conflict in which the agents (managers) may pursue decisions that benefit their own interest rather than the interest of the principal (owner).

Smith (1932), as mentioned in Grant (2003), predicted the risk of the laxity of managers in handling the resources of businesses that were generated by other parties (owners). Self-driven managers have misled stockholders and have led many companies to financial loss, crisis and bankruptcy. The crisis was visibly witnessed by Enron and other companies' scandals.

The notion of corporate governance principles was initiated to respond to the agency problem and to moderate the interest of management and shareholders. Good governance positions the transparent and honest communication of the tripartite; the management, the governing body and the shareholders (Grant, 2003; Rossouw, van der Watt, & Malan, 2002).

To ensure the existence of transparent, responsible and fair governance in the corporate sector and to align the communication between management, stakeholders and boards of directors, standards and principles have been developed. To mention some, the OECD principles of corporate governance, the Sarbanes-Oxley Act of the United States of America, South Africa's King I, II and III and other countries' practices were introduced to guide corporate sector ethics.

Corporate governance in South Africa is considered to be one of the best in emerging markets. Listed firms in the country are regulated by the Companies Act (1973)King reports were also introduced to regulate corporate governance practices (Abor & Fiador, 2013).

The King reports have played a pivotal role in guiding the practices of good corporate governance in South Africa by broadening the protection level to all stakeholders.

The context of this study is the importance of corporate governance mechanisms to alleviate the agency conflict that exists because of the

separation of the owners (shareholders) from the managers (agents) and to ultimately assess the effect of dividend behaviour of South African firms.

Abor and Fiador (2013) indicate that one aspect of corporate governance is the role of the board of directors to exercise control over managers to undertake their responsibility in the way that protects shareholders' value. The board is also responsible for setting strategic direction and making financing, investment and dividend decisions.

This study, therefore, looked at the effect of corporate governance mechanisms, particularly the board structure (size, independence, and gender composition), CEO's duality and ownership concentration (institutional) on dividend payout decisions.

Studies undertaken in the UK, Canada, Germany, Asia, some selected sub-Saharan and emerging market countries on the nexus of corporate governance and dividend decision generated mixed results (Abor & Fiador, 2013; Bin & Dutta, 2012; Gugler & Yurtoglu, 2003). This study focused on firms listed on the Johannesburg Stock Exchange (JSE) included one additional variable to the board structure that has not been considered in previous studies, which is the effect of gender diversification on the board on dividend payout. Some countries such as Norway have introduced a gender quota system for corporate firms (Nielsen & Huse, 2010). Similarly, the findings of this study could serve as input into policy making.

The study is also expected to contribute to the corporate governance debate and play a part in narrowing the knowledge gaps on determinants of dividend behaviour, using as an example firms listed on the Johannesburg Stock Exchange.

1.3 Problem Statement

Corporate governance in South Africa has influenced corporate decisions, typically financing, investment and dividend policy. While the determinants of dividend payout have not been explicitly concluded, the corporate governance

mechanisms from the agency framework point of view have shown a promising influence on the dividend payout decisions.

This study intended to assess the effect of corporate governance mechanisms, particularly the board structure (size, independence, and gender composition), CEO's duality, ownership concentration (institutional) on dividend behaviour of companies listed on the JSE. To address the knowledge gap mentioned above, this study conceptualised the theories that are believed to be the basis for dividend decisions, described corporate governance mechanisms and identified other determinants of dividend payout decisions.

1.4 Significance of the Study

The relationship between corporate governance and dividend behaviour has not been studied in depth for firms listed on the Johannesburg Stock Exchange except for selected South African firms that were included in the study that focused on Sub-Saharan Africa (Abor & Fiador, 2013). South Africa has a different legal, environmental and social setup that demarcates its corporate governance practices. South Africa has strong corporate governance practices influenced by the Companies Act (1973) and King reports (Abor & Fiador, 2013). Therefore, this report enhances the knowledge of the relationship between corporate governance mechanisms and dividend behaviour, taking into account the context that prevails in South Africa.

In addition, to my knowledge, the effect of board gender composition on dividend decision has not been adequately considered in previous studies, particularly from the perspective of emerging economies. This study, therefore, sought insight on the effect of the board's gender composition on dividend payout.

1.5 Delimitations of the Study

While there are many lists of corporate governance mechanisms described in King III and in other governance standards and principles, the factors that were considered for this study were limited to board structure (size and

independence), CEO's duality, and institutional ownership. For comparisons only King III was used.

Firms listed on the JSE that did not pay dividends in the last five years of the recent financial period, 2012 were excluded as the study is designed to see the effect of corporate governance on dividends paid. Firms that do not have most of the required variables were also excluded.

Furthermore, small JSE-listed companies, as well as companies not listed on the JSE, were not considered since the sample was limited to the companies identified as the top 40 in the year 2012.

1.6 Definition of Terms

"**Corporate Governance** is concerned with the resolution of the collective action problems among dispersed investors and the reconciliations of the conflict of interest between various corporate claimholders" (Becht et al., 2003, p. 1). Corporate governance as per Claessens (2006, p. 3) is viewed from two perspectives: "behavioural patterns – the actual behaviour of corporations, as measured by performance, efficiency, growth, financial structure and treatment of shareholders and other stakeholders, and a normative framework – the rules under which firms operate with the rules coming from such source as legal system, financial markets, and factor (labour) markets."

Corporate governance is "procedures and processes according to which an organisation is directed and controlled. The corporate governance structure specifies the distribution of rights and responsibilities among the different participants in the organisation – such as the board, managers, shareholders and other stakeholders – and lays down the rules and procedures for decision-making" (Scheller, 2004, p. 206).

Dividend Policy refers to "the payout policy that a firm follows in determining the size and pattern of cash distributions to shareholders over time" (Longinidis & Symeonidis, 2013, p. 111). In this research, the term "dividend payout" is used to refer to the total dividend paid by firms.

King III, according to the King Committee on Corporate Governance (2009, p. 4), refers to “the third report on corporate governance in South Africa that was developed to embrace the Companies Act no. 71 of 2008 and changes in international governance trends”.

1.7 Assumptions

It is assumed that corporate governance mechanisms have a similar influence on all business sectors.

It is also assumed that there are common determinants of dividends on international markets and in South African companies and firms.

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CHAPTER 2. LITERATURE REVIEW

2.1 Introduction

This chapter focuses on the theoretical background to corporate governance in South Africa, dividend theories and corporate governance mechanisms that have a relationship with dividend. Following the detailed theoretical narrative, existing empirical evidence on the relationship between corporate governance and dividend payout policy is summarised and propositions that prompted the data collection, analysis and reporting are set out.

The frameworks for the policy of dividend payout have been studied by many researchers. However, there is no definite theory or variable that explains the dividend payout behaviour and the subject is under continuous scrutiny. Studies in this area have not yet settled on certain principles that would explain the motives to distribute net income in the form of dividend to shareholders. However, a number of researchers have inclined towards the agency theory, as well as corporate governance practices that mediate the divergent interests of principal and agent (Abor & Fiador, 2013; Adjaoud & Ben-Amar, 2010).

Longinidis and Symeonidis (2013) explain that one of the objectives of corporate financial management is maximising existing value of shares. The dividend contributes to the value of the share in which capital owners have interest. Companies that perform well in their business operations will generate net income or profit. The major puzzle on the income generated is how to embark on the optimal decision of its allocation. The critical questions that should be answered are: whether it should be distributed to shareholders in the form of dividend; should it be used to grow the business by investments into various business opportunities; or should it be applied to retire debt or raise equity (Al-Malkawi, Rafferty, & Pillai, 2010; Amidu & Abor, 2006). Dividend behaviour is considered as delicate since its declaration has an impact on firms' internal decisions and investors' perceptions.

The major theory that is repeatedly pointed out in relevant studies is the agency theory. It is mentioned that reducing or controlling the level of free cash flow that managers might be tempted to divert to non-profitable or risky investment portfolios is critical to mitigate the agency cost. Returning cash in the form of dividend is considered as one of the controlling mechanisms. (Belden, Fister, & Knapp, 2005a; Jensen & Meckling, 1976). Easterbrook (1984) also argues that payment of dividends exposes firms to the external capital market to raise funds, which ultimately increases the monitoring by the financial institutions (banks) and institutional investors. Equally important, good governance secures the structure of the corporate board, disciplines the behaviour of the managers, and converges the interests of the agent and the principal (Bin & Dutta, 2012). The relation of the agency theory to dividends is associated with the firm's corporate governance of its dividend policy (Adjaoud & Ben-Amar, 2010).

Lopez de Silanes, Vishny, and Shleifer (2000) in their research on the relationship between agency theory and dividend payout came up with two models called outcome model and substitution model. These findings conclude that, as per the outcome model, good corporate governance that secures strong shareholders' protection leads to dividend payment. As per the substitution model of Lopez de Silanes et al. (2000), dividend is to substitute void corporate governance. This study has further assessed and documented which model would stand out in the case of South Africa.

The section below describes the dividend policy in South Africa. It summarises the corporate governance evolution of South Africa and touches on some theories that are related to relevant explanatory variables to dividend payout.

2.2 Evolution of Corporate Governance in South Africa

According to Malherbe and Segal (2001), in the 1980s South Africa was mainly controlled by the domestic capital market because of its political isolation and economic sanctions against it. The country was excluded from participating in international affairs and foreign competition and could not attract foreign

investors and international institutions to participate in the domestic market. The corporate practices, national laws and regulations then were way behind the international norms and standards.

The development of corporate governance practices in South Africa can be traced back to the mid-1990s when South Africa became a democratic country (Malherbe & Segal, 2001). Political and regulatory reforms, trade liberalisation, government's plan to address social investment and employment demanded efficient domestic and foreign capital markets and ethical private firms that could support the country's need.

According to Vaughn and Ryan (2006), the rapid progress of corporate governance was driven by market pressure, a shift in corporate control structures and the economic crisis in emerging markets. The pressure was considered as the second contributor to the birth of good corporate governance in South Africa (Vaughn & Ryan, 2006).

After the economic sanctions were lifted and South Africa re-entered the foreign market, substantial push from foreign investors and banks that served those foreign investors put pressure on the need for good corporate governance practices. These practices enhance accountability, transparency and fairness to prevent the risk of their capital investments (Malherbe & Segal, 2001)

The other critical component for South Africa's corporate governance structure was the shift in the corporate control structure. The dismantling of the mining finance house that controlled the South African corporate sector and new JSE rules on the low voting shares and pyramid structure shifted the control structures of firms listed on the JSE and significantly contributed to the birth of corporate governance (Vaughn & Ryan, 2006).

To develop and reform the corporate governance that could respond to the globalisation and the country's productivity and market growth, initiatives like the King I report on corporate governance, insider trading Act and revised listing requirements by JSE were introduced (Vaughn & Ryan, 2006).

Currently South Africa's corporate governance practices are ranked the best in emerging market countries, even though some areas need further development (Abor & Fiador, 2013).

The King I report on corporate governance was first published in 1994 by the King Committee (Malherbe & Segal, 2001). It was the first in the country and incorporated a code of corporate practices and conduct. King I was aimed at promoting the highest standards of corporate governance in South Africa. Beyond its emphasis on financial and regulatory issues King I had an overall approach of responding to the good governance that applied to all stakeholders. The continuous evolution of the country's economy, globalisation and development of legislation demanded an updated version of the King I report and King II was published in 2000.

King II acknowledges the importance of transforming to triple bottom line, which requires the corporate sector to embrace activities that respond to the three important factors, which are economic, environmental and social unlike the traditional approach which focused on maximising shareholder's value (profit maximisation). King II required companies in South Africa to adopt an inclusive, not exclusive approach and to transact in ways that assures sustainability and valued non-financial performance. The inclusive approach was a breakthrough, considering that the majority of the South African population were facing inequality as a result of apartheid, which left a significant number of citizens disadvantaged economically and socially.

On the leadership part, King II recommends a unitary board and structure, which comprises executive and non-executive directors. King II highlights the importance of having majority non-executive directors on the board and a sufficient number of them being independent directors. King II requires the board to retain full and effective control over the company and be responsible for monitoring the management to implement the plans and objectives set by the board. King II also made a clear distinction between the role of the Chief Executive Director and the Chairperson of the Board. The chief executive officer's role should be to ensure proper functioning of the company while the Chairperson's is to guarantee the effective functioning of the board. Most of

the King II recommendations are an area of interest in this research when the relationship between corporate governance and dividend payout is assessed.

The King Committee continuously worked on the development of governance principles to maintain the reputation that companies listed in South Africa were the best governed companies (Abor & Fiador, 2013). The committee compiled its third report, which is called King III, in 2009.

According to King Committee on Corporate Governance (2009), King III was necessitated because of the declaration of the Companies Act no. 71 of 2008 ("the Act") and changes in international governance trends resulting from the financial crisis. King III is a voluntary basis of governance compliances like the previous reports and it is based on "apply or explain" (King Committee on Corporate Governance, 2009, p. 6). Apply or explain considers how principles and recommendations can be applied.

2.3 Corporate Governance and Dividend Payout Policy

Jiraporn, Kim, and Kim (2011) explain that corporate governance mechanisms are believed to moderate the agency conflict by placing appropriate measures to control and rule the actions of the managers and protect the interests of the investors. Hutchinson and Gul (2004) also mention that the presence of different corporate governance mechanisms can lower the level of agency cost. To reduce agency problems, proper corporate governance mechanisms should be in place to monitor and discipline firm managers to act in the best interest of the shareholders. One of the important corporate governance mechanisms is the role of the board of directors (Abor & Fiador, 2013).

The corporate governance mechanisms that are considered in this study are level of institutional ownership and board structure, mainly represented by the board size, board composition, gender composition, and CEO's duality. The reason that the study focuses on these mechanisms is that the board is an important tool to mitigate the agent problem by monitoring the conduct of management and extending advice and oversight. Most corporate governance principles around the globe have commonalities and recommend the

importance of maintaining an effective and functioning independent board that brings together the interest of internals (management) and externals (shareholders) and is capable of managing the company. King reports also stipulate the importance of establishing a unitary board structure with an adequate number of non-executive directors and sufficient number of non-executive independents.

2.3.1 Board Size and dividend payout

The board of directors is responsible for leading the entity ethically for sustainability and should apply inclusively a triple bottom line approach of economic, environmental and social factors. The board is also responsible for setting strategic directions of the entity and protecting stakeholders' inclusive approach to governance (King III 2009).

Coles, Daniel, and Naveen (2008) explain that board size can affect the board's ability to function successfully. Board size represents the number of members (both executive and non-executive) on the firm's board. The South African corporate governance principles set out in King III do not specify the minimum or optimal number of board members. However, this report emphasises that a corporate board must have a significant number of non-executive directors.

Lipton and Lorsch (1992), and Jensen (1993) cited by Guest (2009) suggest a board size between seven and nine will assist the board function effectively.

Studies on the relationship between board size and a company's performance produce mixed results. Coles et al. (2008) argues that complex, large and diversified firms are likely to use large board sizes, as management of those firms might have significant advisory requirements. Bigger size boards control better the opportunistic behaviours of firm managers and they can reinforce better monitoring (Abor & Fiador, 2013). Bigger boards have more people to question managers' decisions that do not benefit the shareholders (Belden, Fister, & Knapp, 2005b). Abor and Fiador (2013) also found out that the increasing number of board size members contributed to higher dividend pay outs in Ghanaian firms.

On the other hand, advocates for smaller board size contend that the smaller the board size, the more manageable it is and decisions are taken more quickly. Bin and Dutta (2012) consider bigger board sizes as weaker corporate governance characteristics, as they could be less organised and coordinated and more

Guest (2009) summarised the difficultly of a larger board size in three points: communication and coordination problems; the director free-rider problem; and less board cohesiveness. Guest (2009)'s study revealed a negative board size and performance relationship for larger firms but still casts a doubt that larger size will improve performance. Therefore the proposition that is tested is:

Proposition 1: There is a significant inverse relationship between board size and dividend payout

2.3.2 Board independence and dividend payout

Board independence refers to the total number of non-executive independent directors on the board. An independent non-executive director is a director who has no affiliation with the firm except his or her directorship. King III recommends for a majority of non-executive directors of which the majority should be independent. King III also recommends that the composition of the board of directors should consider demographics, skills, resources and knowledge.

Uadiale (2010) states that independent directors will make a difference in controlling and monitoring the management so that managers do not indulge in activities that affect the interest of shareholders. Besides, Belden et al. (2005a) inclinations towards board independence is to ensure that boards of directors are well equipped with adequate and diversified knowledge and are independent enough to challenge the insiders. One of the objectives for the existence of a board of directors is to address the issue of agency problems and reduce agency cost. Independent directors should be able to challenge managers who are keen to maximise their private interest, which differs from that of the shareholders.

Non-executive, independent directors can represent the shareholders and contest for the rights of the shareholders while the insider directors are more loyal to the CEO because of the influence of power (Bin & Dutta, 2012).

Belden, Fister, and Knapp (2005b) conclude that firms with more outside independent directors pay higher dividends and justify the need to have a policy that requires more outsiders on the board.

On the opposite side, some researchers argue that in certain circumstances, having the board dominated by insiders or a related party is valuable, particularly for firms that need specialised advice and in-depth knowledge of internal processes (Arosa, Iturralde, & Maseda, 2010; Klein, 1998).

To relate to the sutdies performed on the relationship of board independence and dividend payout in Sub-Saharan countries, this study looked at the relations between an independent board and divident pay out in South Africa.

Proposition 2: There is a significant positive relationship between board independence and dividend payout.

2.3.3 Gender composition and dividend payout

The importance of gender composition on boards has been greatly supported by many studies (Bjarnadóttir, 2013; Campbell & Vera, 2010; Nielsen & Huse, 2010). The findings from the empirical studies on the relationship of gender diversity on firms' performance and dividend payout have generated mixed results. Some outcomes show a positive relationship and support the significant contribution of having women on a board for its effective functioning. Campbell and Vera (2010) state that including of women on leadership is part of governance reform.

Nielsen and Huse (2010) emphasise that some countries, like Norway, set a regulatory requirement demanding that corporate firms include women members on their boards. Nielsen and Huse (2010) also report that boards of directors deal with operational control tasks, which focus on supervising of the management's decisions on such things as the cash flow, dividend, and

operational activities. These activities require quantitative knowledge and skills. Strategic controls that are concerned with supervising of the management on the decisions related to strategy, practices and policies – all needing analytical and visionary skills; women are credited for their ability to give strategic input.

Adams and Ferreira (2009) claim that female members of boards have fewer attendance problems and contribute to effective functioning of the boards.

Swartz and Firer (2005) indicate that women have a distinct sociological perception and understanding of the decision-making process. Graves and Powell (1988), cited by Swartz and Firer (2005), document that female directors favour more their companies' responsibilities for communities and they ensure that this is the component of the strategic direction. Besides, Swartz and Firer (2005) agreed that women have the ability to communicate with a wider range of employees and were able to attract more female employees in firms.

Adams and Ferreira (2009) argue that the gender diversity in the board room is imperative to bring more talent to support and advise the directors. The researchers also indicated that a more diverse board might also have better relations with stakeholders of the firm like suppliers, customers and employees. Similarly, Dobbin and Jung (2010) citing Barsade (2000) point out that from a diversification perspective teams with diversified personalities and skills are more effective in making decisions and implementing changes. The finding of Dobbin and Jung (2010) confirms that gender diversity contributes to firm's performance by motivating institutional investors that control majority of shares.

Campbell and Vera (2010) also agree that gender diversification has contributed to good firm performance as women are highly dedicated to firm monitoring and have better attendance. The result of Adams and Ferreira (2009) study also shows that women leaders contribute positively to effectiveness of board governance; they hold the CEO responsible for weak stock price performance. Another positive relationship was documented by Erhardt, Werbel, and Shrader (2003) which stated that firm performance correlated with board diversity. Moreover, Jurkus, Park, and Woodard (2011)

claimed that gender diversification reduces agency cost when external corporate governance is void.

On the other hand, some researchers documented either insignificant or negative relationships between gender diversification and performance or pay out.

Adams and Ferreira (2009) explains that excessive board monitoring reduces shareholders' value, particularly for firms that already have established good governance. The researchers also indicated that gender-mixed boards are very strict in monitoring; therefore, imposing gender quotas on the boardroom might harm well-structured governance to the point where the excessive monitoring is counterproductive (Adams & Ferreira, 2009).

In the context of South Africa, a similar trend as in the rest of the world is observed. Empowering women to participate at higher-level positions and parliamentarian seats is relevant. The Employment Equity Act, 1988, which legislates equal opportunity to all persons, irrespective of race and gender brought a light on previously disadvantaged groups to assume positions at executive levels (K. April, Dreyer, & Blass, 2007)

According to K. April et al. (2007), the common challenges to get the required number of women in executive positions are education, societal perception, glass ceiling, queen bee syndrome and work-life balance.

K. April et al. (2007) agree that education is imperative to assume positions at the leadership level. Even though there is regulatory support and companies' readiness to have women at the executive level, women who have all the desire and capacity will not make it if they have not acquired the relevant skills and qualifications. The societal perception, which is considered as another barrier, is explained as: 1) In the New South Africa, because of the Employment Equity Act and Affirmative Action, it is assumed that women have more opportunities than men while the reality is the reverse 2) women are not considered as ideal workers because of their commitment towards unpaid care activities like responsibilities to take care of children and family; taking breaks or working fewer hours (K. A. April, 2007). 3). The other barrier that the researcher

mentioned is the glass ceiling; which is known as an invisible barrier that holds women back from advancing to executive ranks. 4). queen bee syndrome is explained K. April et al. (2007) as follows: women at executive level became reluctant to recruit or promote other women due to fear of competition or outperformance by their fellow sisters. 5) work-life balance is referred to as: executive women compromise their positions if the working environment does not have sufficient support for family and personal issues that women value most as part of their life (K. April et al., 2007).

The study still aims at looking at the impact of having women on board on dividend payout from the agency theory perspective. Therefore, identifying the real barriers to having more women representation on boards of JSE-listed companies is equally important even though the depth analysis of the barriers is beyond the scope of this study. The study tests this effect as per the proposition below:

Proposition 3: There is a significant positive relationship between the composition of women on the board of directors and dividend payout

2.3.4 Institutional ownership and dividend payout

The ownership concentration refers to the proportion of shares owned by the institutions who own at least three percent of the firm's shares. Assessing the ownership composition helps to visualise the focus of power that influences decisions. In this section, the study looks at the block institutional ownership and documented evidence on their effect on dividend payout policy (Abor & Fiador, 2013; Han, Lee, & Suk, 1999).

Empirical evidence attests that institutions with substantial portions of ownership can control and influence managers and contribute to the reduction of agency cost. Influencing corporate decisions will be difficult for dispersed shareholders. According to this idea, institutional investors could be used for monitoring manoeuvres and could substitute for the importance of external controllers. Abor and Fiador (2013), citing Mayers (2000) indicate that

managers are likely to pay dividends to avoid disciplinary action by institutional shareholders.

According to Han, Lee, and Suk (1999), institutional shareholders have professional capacity to manage and monitor firms. Therefore, firms dominated by institutional shareholders are less exposed to external market monitoring as they are well regulated by the institutions. Agency cost in institutional-dominated firms is also low and reduced the need to pay dividends.

Therefore, the relationship between institutional ownership and dividend payout is set out as:

Proposition 4: There is a significant positive relationship between institutional ownership and dividend payout

2.3.5 Chief executive officer (CEO's) duality and dividend pay out

Chief executive officer's (CEO's) duality is another component of corporate governance mechanisms that are considered in this study. The CEO's duality emerges when the CEO assumes the position of the chair of the board of directors. To ensure independence, King III recommends separation of the CEO's and the board chairman's positions. (King III 2009)

Abor and Fiador (2013) citing Fama and Jensen (1983) state that when the CEO holds the position of the chairman of the board, the monitoring responsibility of the board will be compromised and the management of the firm will be less challenged by the board members. As per Fama and Jensen (1983), the control and management of decisions should be separated to alleviate the agency problem. These authors further claimed that in the absence of effective control, the implementing managers are likely to take actions that diverge from the interests of the shareholders.

Daily and Dalton (1997) mention that reform activists are worried about the CEO's duality as the check and balance system would be affected.

Proposition 5: There is a significant positive relationship between separation of the roles of chief executive officer and chairperson and dividend payout

2.4 Dividend Theories

The study on dividend behaviour has been paramount since Miller and Modigliani (1961) drew conclusions on the dividend irrelevance on the valuation of shares. Following this judgment, researchers focused on studying the motives for firms to pay dividends and tried to establish correlations of variables that explain the dividend behaviour.

Farinha (2003) indicates that dividend behaviour would not only be explained by a single theory and therefore the existing empirical theory fails to reject further alternative predictors. Based on this idea, some dividend theories are described in the following section.

2.4.1 Signalling theory

Managers engage directly in the daily activity of the firm. They spend time analysing all strategic marketing, financial and any information about the status and performance of the firm. They can easily see any market opportunities, as they have direct access to the firm's inside information. However, the investors/stockholders might not have the level of information that the managers do. Therefore, dividend signalling is considered to deal with asymmetric information between managers and investors (Al Shabibi & Ramesh, 2011). Announcement of a change on the dividend policy, as per signalling theory is viewed as a means of conveying information to the market about the future performance of the firms; and investors react to that information.

2.4.2 Pecking order theory

As Al Shabibi and Ramesh (2011) explain, this theory is a leverage theory, which is driven by two assumptions. The first assumption is the asymmetric information between managers and outside shareholders. When managers

issue new shares to raise funds, investors assume that managers think that the firm is overvalued and the managers are taking the advantage of it; as the result they offer less value for the new share. The second assumption is that the firm will follow the pecking order to finance its investment opportunities or distribution of dividend. The model postulates that financing opportunities and dividend distribution will be first financed from internal sources (retained earnings). Once the internal source is exhausted, the firm will solicit funds through debt, and lastly, through the raising of equity funds. As per this theory, firms with high internal sources (profitability) will pay dividends and if the in-house fund is not adequate, firms might raise funds through debt to finance dividend payment. However firms should have the capability to approach the financing institutions. As per Peck's order theory if firms have less access to external sources to finance new opportunities, dividend payout will be compromised, as the firm will withhold dividend to invest on new opportunities.

2.4.3 Transaction cost theory

Rozeff (1982) explains the determinant of transaction cost on divided pay. In terms of the transaction cost theory, it is assumed that the more dividend payments are made, the lower the agency cost will be. The transactional cost is high in small-size firms and firms that have a high level of volatility (risk). Transaction cost is believed to be high for smaller firms, as these firms tend to finance their activities and dividend distribution through debt.

Large firms commonly have lower transaction costs as they have better access to the capital market. As a result, large firms are more likely to pay dividends than small firms, as they depend less on internal source (retained earnings) to finance their activities (Adjaoud & Ben-Amar, 2010). This theory is measured by the firm-size variable.

2.4.4 Bankruptcy theory

Al Shabibi and Ramesh (2011) citing Al-Najjar & Hussainey (2009b) argue that when firms fail to meet repayment of long-term debts, they will be subject to

bankruptcy costs. Consequently, the firm's ownership has to be changed and the capital structure is likely to be reformed.

Al-Najjar (2009) claims that firms attempting to reduce leverage level can reduce bankruptcy cost and firms with low probability of bankruptcy will pay dividends.

2.4.5 Tax clientele theory

Tax status of investors also contributes to the firm's dividend payout. As per Al-Najjar (2009) and Longinidis and Symeonidis (2013), investors prefer the firm to retain dividend when the tax on dividend is higher than the rate on capital gained. Tax differenitals between dividend pay and capital gain also influence the share repurchases, which is also another form of distributing excess cash to shareholders (Grullon & Michaely, 2002). The taxes imposed on dividend pay in South Africa have been varying for the past 20 years; in most circustances, the tax rate of captial gain was less than the tax rate of dividend (Firer, Gilbert, & Maytham, 2008).

South Africa has introduced a new dividend tax to replace the Secondary Tax on Companies (STC) since April 2012 (Coetzee & de Wet). The replacement of the STC by the dividend tax was mainly to align South Africa with the international norm of taxing the recipient of a dividend and not the company that issues the dividend, and to make South Africa a more attractive international investment destination (Coetzee & de Wet). This change will relieve corporates from paying higher tax and attract foreign investment; however individual investors are required to pay 15% divident tax, which is higher than the captial tax of 13.3%. Therefore, individual investors will opt for capital gain rather than dividend payouts (Coetzee & de Wet).

2.4.6 Agency theory

The agency relationship as defined by Jensen and Mackling (1976, p.308) cited in Grant (2003) is "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".

The agency framework played a dominant role in explaining the relevance of the dividend payout decision. The agency conflict resulted from the separation of ownership (outside stockholders) and control (inside agents) and diversion of interest of both parties. The separation of control forces outside shareholders to demand higher dividends rather than leaving the cash at the disposal of the managers, since the managers could easily manipulate the excess cash into imprudent project portfolios that do not benefit the owners.

Therefore, dividend payout is assumed to be a solution to reduce the free cash flow that managers can use for their private benefit, which is against the maximisation of the shareholders' value (Abor & Fiador, 2013; Jiraporn et al., 2011). This theory has been considered as relevant to establish evidence on the relationship between corporate governance and dividend payout (Abor & Fiador, 2013; Bin & Dutta, 2012; Gugler & Yurtoglu, 2003).

Theories that have been developed by researchers to explain the dividend behaviour of firms were not limited to the aforementioned lists. Other theories like the residual theory, the free cash flow hypothesis, firm life cycle theory, the catering theory and the behavioural theory have also been considered and results have established a relationship with dividend policy and contributed to the "dividend puzzle", as there was no explicit theory that defined the dividend policy (Longinidis & Symeonidis, 2013)

2.5 Dividend Policy in South Africa

Firer et al. (2008) using information gathered from managers conducted research to understand the behaviour of dividend policy in South Africa. The result indicated that the South African dividend policy is in congruence with the Linter's model (Firer et al., 2008). Linter's model assumes that firms initially set dividend targets and the gradual payment of dividend is to reach the target (Lintner, 1956).

According to Firer et al. (2008), dividend behaviour in South Africa showed the relevance of the signalling theory, as dividend decisions conveyed information to the market. However, the dividend announcement was not used by managers as a way of communicating the firms' performance to the market (Firer et al., 2008). In addition, Firer et al. (2008), claims that the clientele effect was not relevant

2.6 Summary of previous Study Findings

Driven by agency theory, researchers have conducted studies on the relationship between corporate governance and dividend policy. From the research, the relationship between corporate governance and dividend payout has been proved. However, the results are varied. Some of the empirical literature on the relationship is summarised below.

According to Adjaoud and Ben-Amar (2010), shareholders' protection and expropriations showed that firms with stronger corporate governance have higher dividend payout. Adjaoud and Ben-Amar (2010) also confirmed that board composition and shareholders rights' policy were positively correlated with payout ratios.

Bin and Dutta (2012) found that in Canada firms with large boards favour higher dividend payments. The outcome also reflected the substitution model. The model confirms that poor governance characteristics are highly likely to pay higher dividends and encourage acceptance from shareholders.

Gugler and Yurtoglu (2003) in their study targeted firms in Germany on corporate governance and dividend payout policy. These authors concluded that dividends signal the severity of conflict between the large and small controlling owner.

Abor and Fiador (2013) in their study titled: "Does corporate governance explain dividend policy in Sub-Saharan Africa?" found out that board composition and board size exhibit a significantly positive relationship with dividend payout in

Kenya and Ghana. Institutional ownership positively influences dividend payout amount in South African and Kenyan firms.

Mitton (2004) looked at corporate governance and dividend policy in emerging markets and found out that firms with stronger corporate governance reported a higher dividend payout.

2.7 Conclusion of Literature Review

The literature review indicates that numerous theories that have been developed to explain dividend policy are inconclusive and the explanatory factor for dividend policy is still emerging.

The concept of corporate governance, which studies claim as one of the mechanisms to tackle the agency problem, appears to bring some conclusive findings (Adjaoud & Ben-Amar, 2010). Based on this fact, empirical studies have been reviewed to assess details of the contribution of corporate governance mechanisms such as board size, board composition, gender composition, CEO's duality and level of institutional ownership on dividend payout policy. To assess the relationships the following propositions are developed.

The identified corporate governance mechanisms have a relationship with dividend policy. The direction of the relationship for South African firms is investigated and backed up by data analysis and reporting, which is covered in the ensuing section.

Proposition 1: There is a significant inverse relationship between board size and dividend payout

Proposition 2: There is a significant positive relationship between board independence and dividend payout

Proposition 3: There is a significant positive relationship between the composition of women on the board of directors and dividend payout

Proposition 4: There is a significant positive relationship between intuitional ownership and dividend payout

Proposition 5: There is a significant positive relationship between separation of the roles of chief executive officer and chairperson and dividend payout

CHAPTER 3. RESEARCH METHODOLOGY

3.1 Research Methodology

It is important to identify the research strategy to adequately respond to and address the paradigm of the social subject being studied. Two types of research strategies, called qualitative and quantitative, are commonly described in research methodology books and articles and help the researcher orientate himself or herself on the next levels of social research such as research design, data collection, analysis and reporting.

As defined by Bryman (2012, pp. 35-36): “Quantitative research is a research strategy that emphasizes quantification in the collection and analysis of data that entails a deductive approach to the relation between theory and research, in which the accent is placed on the testing of the theories.”

As the study focuses on assessing the relationship between corporate governance and dividend payout and d have to measure the variables numerically, the quantitative research strategies suit the purpose. In addition, in this study different propositions have been deduced from existing theories and used as bases for research design, data collection and analysis.

This research design is considered appropriate, as many researchers have used it in performing studies in similar areas. To mention some; Abor and Fiador (2013) applied a quantitative approach to examine the effect of corporate governance on a firm’s dividend payout policy in Sub-Saharan Africa. A similar approach was used by Francis, Hasan, John, and Song (2011) in their study of the impact of corporate governance and dividend policy under takeover pressure..

3.2 Research Design

While there are five different types of research designs known as experimental, cross sectional, longitudinal, comparative and case study, a longitudinal design

is considered appropriate for this study. The researcher wanted to see the association between corporate governance variables (independent) and dividend payout (dependent variable) of different sampled organisations over a five-year period of 2008 to 2012.

As per Bryman (2012), with longitudinal design, the sample surveyed is measured on more than one occasion.

Data to examine the relationship between the variables was collected simultaneously and the variables that determine corporate governance and dividend payout could not be manipulated. Hence, a longitudinal research design is legitimate to apply.

A longitudinal research design was adopted by Abor and Fiador (2013); Adjaoud and Ben-Amar (2010) to study the linkage between dividend payout and corporate governance.

3.3 Population and Sample

3.3.1 Population

The target population of the research was all companies listed on the JSE. A target population as defined by Bryman (2012, p. 714) is “a universe of units from which the sample is going to be selected.” As per King III, all companies listed on the JSE are required to prepare an integrated financial report that presents all information on corporate governance and companies’ financial and non-financial information.

3.3.2 Sample size and sampling method

Purposive sampling was applicable for the study as it allows the research questions to be addressed. The sample for the study was the top forty companies in 2012 listed in.

The second selection criterion used was dividend payment. Companies must have paid a dividend during the years considered for the study (2008 to 2012). Similar sampling procedures were applied by Al Shabibi and Ramesh (2011) to study the determinants of dividend policy in the UK. The sample size was companies that were listed as top (based on their market capitalisation in 2012) and data related to the corporate governance variables was collected from the companies that published financial statements and all the standardised financial figures were obtained from the McGregor BFA database.

3.4 The Research Instrument

A matrix was developed to consolidate information required for the study (Appendix A). Information about each variable was compiled from the annual integrated reports and the McGregor BFA database and uploaded to the statistical software for further analysis.

3.5 Procedure for Data Collection

Information regarding the details of board structure (size, independence and gender composition), CEO's duality, and institutional ownership was collected from the annual published financial statements. The financial statement was downloaded from the each company's website. In certain cases, annual reports were not available publicly on the websites and companies were directly contacted to share the information to have complete information for the analysis. Financial figures to calculate the results for dividend payout and all other control variables were obtained from McGregor BFA. In addition, most companies report their shareholder analysis and institutions that own more than 3% of the shares would be part of the analysis. When that information was not found or presented in the financial statement, the data was downloaded from McGregor BFA shareholder analysis data.

3.6 Data Analysis and Interpretation

The study tested the propositions derived from the theoretical review, by collecting data and performing detailed analysis and reporting. Theoretical backgrounds were utilised to identify the variables for corporate governance and dividend policy. Descriptive-, correlation- and panel-regression analysis was conducted to interpret the relationship between the independent and dependent variables. Therefore, the research method is descriptive and explanatory. Adjaoud and Ben-Amar (2010), Abor and Fiador (2013) and others have used similar approaches for their research.

The panel regression analysis shows the relationship of causality between more than two independent variables and the dependent variable. The variables that are considered in this study are described below.

3.6.1 Dependent variable

Dividend is the dependent variable for the study. There are various methods of paying dividends; such as cash payments, issuing of stock and repurchase of shares.

Grullon and Michaely (2002) showed growth of firms' repurchases compared to payment of cash. In South Africa, paybacks of shares was legislated in 1999 but gained lesser preference compared to dividend (Firer et al., 2008).

This study considered only the dividend paid by the selected JSE listed companies. Abor and Fiador (2013) use similar approach on their study.

There are numerous ways of calculating dividend. Bin and Dutta (2012) calculated the value for dividend in four different ways. These are dividend to total assets, dividend to cash flow, dividend yield (dividend per share), and dividend payout ratio (dividend to net earnings). We also applied similar approach and selected three relevant formulas for calculating the dividend value. These formulas are: dividend to total asset; dividend to net income retained for common shareholders; and dividend to share price (dividend yield). This result was assigned to three different models and after detailed

comparison, dividend to total asset, which is calculated as dividend paid to total asset of the firm was used to determine the value of the dividend (the dependent variable).

3.6.2 Independent variables

Independent variables in the regression model are variables that predict the dependent variable. From the theoretical review, a list of variables has been identified that are also used to test the propositions. These are listed below.

Board Size: Board size is the number of members that make up the board of the firm. The board members of each firm were counted and used for the analysis. The board size as per Abor and Fiador (2013) was squared to show a non-linear relationship and the quadratic effect. . However, we tested the result of the regression using the squared value of the board size and we noticed no effect on the result and the data were used as is.

Board Independence: Board independence represents the proportion of directors who do not represent a managerial position in the firm and do not have any interest except for their directorship. They are called independent non-executive directors. This variable is measured as the percentage of the independent non-executive directors on the board to total board size (Bin & Dutta, 2012).

Women Composition on board: This refers to the proportion of women on the board. It is measured as the percentage of women on the board.

CEO's Duality: This variable is one of the corporate governance mechanisms that looks at whether the CEO is assuming the chair's position on the board or not. The variable is considered as a dummy variable on the regression model. Therefore, if the CEO is the chair of the board, 1 will be assigned on the data matrix otherwise the value will be 0 if the CEO is not taking the chair's role on the board.

Institutional ownership: This variable looks at the percentage of shares owned by the institutions holding more than three percent of the firm's shares.

The value of the variable was measured as a percentage of shares held by institutions owning more than 3% of the total firm's shares (Abor & Fiador, 2013).

3.6.3 Control variables:

In multivariate analysis, the most important process is to prove that the relationship between the variables is real or non-spurious (Bryman, 2012). Therefore, it is important to consider all the intervening variables that could possibly explain the variation in the dependent variables. These variables are called "confounding variables" (Bryman, 2012, p. 345).

Confounding factors that were identified as determinants of dividend were included in the analysis. The following are the variables that were used as control variables in the analysis:

Level of debt: The level of debt or leverage is measured as the ratio of total debt to total asset. High leverage level negatively influences dividend payout. Debt providers are good monitors as they can watch the behaviour of managers on the free cash flow. Besides, a debt covenant is a critical part of any firm. If the firm is indebted, it has to meet its short-term interest and loan repayments and internal sources will most likely be allocated to meet those commitments; as a result, fewer dividends will be paid to shareholders (Adjaoud & Ben-Amar, 2010; Farinha, 2003).

Growth can be measured by looking at the ratio of market to book value of equity, growth of asset, sales or earnings per share over years. For this study growth is measured as the ratio of market to book value of equity (Abor & Fiador, 2013; Adjaoud & Ben-Amar, 2010). The growth ratio has a negative relationship with dividend payout as firms would prefer to use the excess cash to finance new opportunities rather than paying it to shareholders as dividend (Adjaoud & Ben-Amar, 2010).

Profitability is the ratio of income before interest and tax to total asset. We take the view that this measure is not influenced by debt structure of the firm as it

excludes interest payment and financial income (Abor & Fiador, 2013; Kowalewski, Stetsyuk, & Talavera, 2007). Highly profitable firms are assumed to pay more dividend as they have more cash available (Bin et al., 2012).

Firm Size could be measured by the amount of turnover, market capitalisation, number of employees and total assets. The natural log of total assets is used as it has been applied by many researchers to similar subjects. Large firms have better access to markets to raise resource and have even cash flow to pay dividends (Abor & Fiador, 2013; Adjaoud & Ben-Amar, 2010; Al Shabibi & Ramesh, 2011; Bin & Dutta, 2012).

Firm Risk is measured with beta of the firm. Past researches claim that the firm is negatively correlated with dividend payout. A firm that is risky and has huge levels of debt will pay a lower dividend (Adjaoud & Ben-Amar, 2010).

3.6.4 Regression model

$$DP = \alpha + \beta_1 Bsz^2 + \beta_2 Bco + \beta_3 Wco + \beta_4 Cdu + \beta_5 Ino^2 + \beta_6 Lev + \beta_7 Gro + \beta_8 Pro + \beta_9 Fri + \beta_{10} Fsz + \varepsilon$$

ε refers to error term. Other variables are defined above.

DP - Dividend paid, Bsz – board size, Wco – women composition, Cdu – CEO duality, Ino – institutional ownership, Lev – leverage, Gro-growth, Pro-profitability, Fri- Firm Risk and Fsz – Firm Size.

Table 1: Description of Variables:

Type of Variables	Description	Measurement	Regression Model code	SPSS/R code
Dependent Variable	Dividend Payout	Dividend paid to Total Asset	DP	Dividend_TA
		Dividend paid to Net income	DP	Dividend_IN
		Dividend per share to price per share	DP	Dividend_YD
Independent Variable	Board Size	Total number of boards	Bsz2	Board_size
	Independent Board composition	Total number of independent non-executive directors	Bco	Nonexecs
	Women composition on board	Total Number of Women on board	Wco	Shares
	CEO's Duality	Dummy Variable 1= if CEO servers as Chair of the board, 0 if not	Cdu	CEO_chair
	Institutional Ownership	institutional investors that own more than 3% of shares	Ino	Tax
Control Variables	Leverage	Total Current Liability to total asset	Lev	Leverage_CA
	Firm Growth	Book value of shares to Market value	Gro	Growth_ME
	Profitability	Net income to Sales	Pro	Profit
	Firm Risk	Beta of the firm	Fri	Frmsize
	Firm Size	Natural Logarithm of total firm Asset	Fsz	Frmrisk

3.7 Limitations of the Study

The following were the limitations of the study:

- There are external (legal environment and shareholder rights) and internal (board structure, managerial, institutional ownership) corporate governance mechanisms. This research focused only on the internal corporate governance mechanisms. The external mechanisms were not considered

- As the sampling method was purposive, firms that did not have complete required information were excluded.

- Secondary data was used for this study and all the information relied on the published financial statements of firms listed on the JSE. Therefore, non-listed firms and firms listed overseas were not considered. Besides, firms listed on the JSE as well as overseas stock markets were not assessed separately.

- The measurement of variables was based on historical data from the financial statements of firms. The natural argument on using historical financial data for analysis is still a limitation.

3.8 Validity and Reliability

Validity and reliability are the criteria that are applied to evaluate the accuracy and consistency of measurements respectively in social research (Bryman, 2012). A researcher needs to confirm that the validity and reliability of the study can guarantee a level of confidence in the quality and in the consistency of measurement and efficacy of the outcome for generalisation.

Reliability refers to the consistency of measures. The result of the study is reliable if the same outcome can be obtained when similar measures are applied at different times by different people (Bryman, 2012). **Validity** is concerned with accuracy of measurement, which corresponds with the details of the research, the evidence and the integrity of the conclusions drawn by the researchers (Bryman, 2012). The processes that assure reliability and validity are mentioned below:

3.8.1 External validity

External validity refers to the extent to which the results of the study can be generalised to the whole population (Bryman, 2012).

External validity will be compromised if there is a significant error in sampling and if the population is not represented or is weakly represented. The sampling method used for this study was purposive sampling that focused on the JSE-listed companies that paid dividends during the five years previous to the most recent financial year of 2012. The sample was representative of all the business sectors. Therefore, external validity was maintained.

3.8.2 Internal validity

Internal validity refers to the causal relationship of variables. It is concerned with the question: does one variable cause an effect on another variable (Bryman, 2012).

The study considered definitions and measurement of variables that have been used by many researchers (Abor & Fiador, 2013; Adjaoud & Ben-Amar, 2010; Bin & Dutta, 2012; Farinha, 2003). The variables listed in this study have been consistently taken into consideration when studies on the relationship between corporate governance and dividend policy are conducted. Confounding variables that might have an impact on the dependent variables have been incorporated to clearly measure the truthfulness of the causal relationships of variables.

3.8.3 Reliability

To ensure consistency of measurement, data that was used for analysis is from published financial reports of companies. The JSE listed companies are required to compile their financial information based on acceptable accounting principles and international financial reporting standards. In addition, the measurement of the financial and corporate governance mechanisms variables were based on the practices applied by numerous studies (Abor & Fiador, 2013; Adjaoud & Ben-Amar, 2010; Al Shabibi & Ramesh, 2011).

CHAPTER 4. PRESENTATION OF RESULTS

4.1 Introduction

To test the propositions and report the findings data was collected from the McGregor BFA and annual financial statements of all selected companies. As stated in the methodology chapter, data for the top 40 companies listed on the JSE has been considered as representative of the population. The descriptive, correlation and regression result generated from the analysis is presented in the ensuing sections.

The result is presented in a way that corresponds with the propositions developed in the literature review section. The outcomes assess the relationship of corporate governance, particularly board size, board composition, gender diversity and presence of block institutional shareholders on dividend payout policy. The study also assesses the impact of confounding variables on dividend payout.

The data that was used for the analysis covers five years, from 2008 to 2012. All the financial figures used for the analysis are represented in ZAR.

The total companies selected for the study were the top 40 companies and five years of panel data was collected to pursue the analysis, which made the total observation two hundred.

4.2 General Outlook of Results

4.2.1 Descriptive statistics results:

Descriptive statistics illustrate the central tendency of the data and dispersion or variation. Table 2 below shows the total number of observations, the mean, the standard deviation, minimum and maximum value of all the dependent, independent and control variables. Descriptive statistics techniques help to convey more precise information about the behaviour of the random variables.

Table 2: Descriptive Statistics

Variables	N	Mean	Std Dev	Minimum	Maximum
Dividend Payout	200	0.06	0.07	0.00	0.41
Tax	200	0.23	0.27	-1.33	2.59
Leverage	200	0.39	0.23	0.00	0.89
Growth	200	3.57	4.22	0.00	34.14
Profit	200	0.21	0.20	-0.32	1.03
Firm size	200	18.06	1.56	14.99	21.40
Firm risk	200	0.89	0.35	0.11	1.93
Board size	200	13.75	3.36	8.00	25.00
Women Composition	200	0.17	0.08	0.00	0.36
Independent Board	200	0.57	0.15	0.30	0.93
Inst. Ownership	200	0.26	0.16	0.00	0.62
CEO Duality	200	0.02	0.12	0.00	1.00

The board size, which is one of the internal mechanisms of corporate governance and considered as one of the explanatory variables for a dividend, had a mean of 14 members. The minimum number of board sizes in the sample companies was 8 while the maximum was 25. As per King III and Companies' Act 1988, the minimum required board size is four but no specific figure is indicated for the optimal and maximum. The board size standard deviation was 3.4, which means that the data values were dispersed by 3.4 from the average value. The average board size of the sample companies remained fairly constant over the study period which inferred that the publication of King III in 2010 has not reformed the board size of public listed companies much.

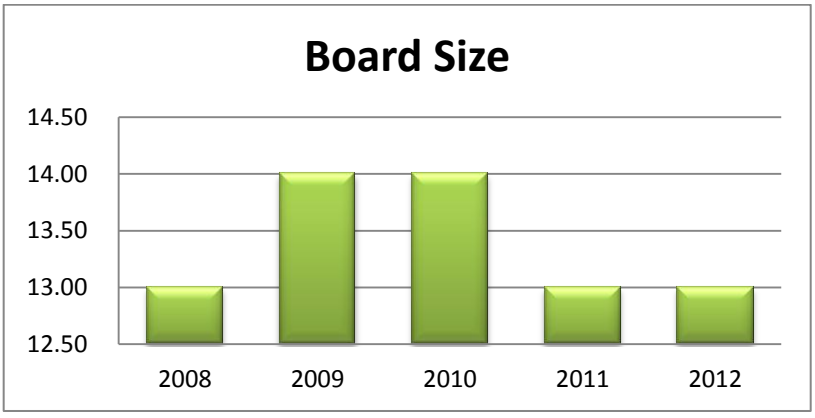

Figure 1: Average Annual Board Size

Women Composition on Board: The average women composition on boards was 17% while the minimum and maximum ranged from nil to 36% respectively. The percentage basically showed that public listed companies in South Africa had a board with women representation of 17%. The trend of women composition on boards has increased annually and the average growth was 40% from 2008 to 2012.

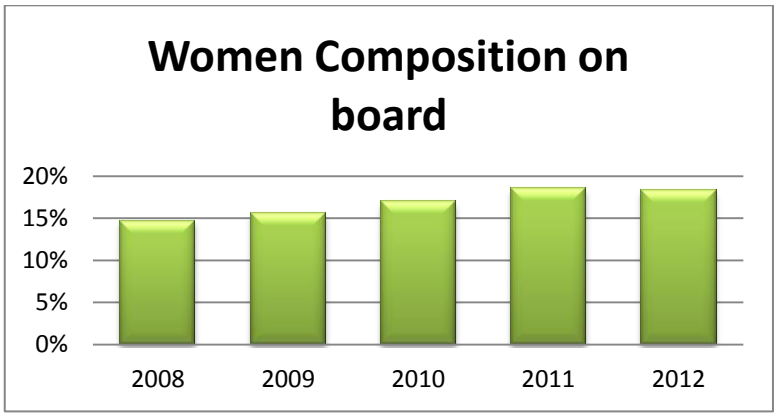

Figure 2: Annual Average Percentage of Women Composition on the Board

The mean of **independent non-executive directors** is 57%, which explains that companies listed on the JSE had a majority of independent non-executive directors on its boards. The chart below portrays that the average percentage of independent non-executive directors fluctuated along the sample period.

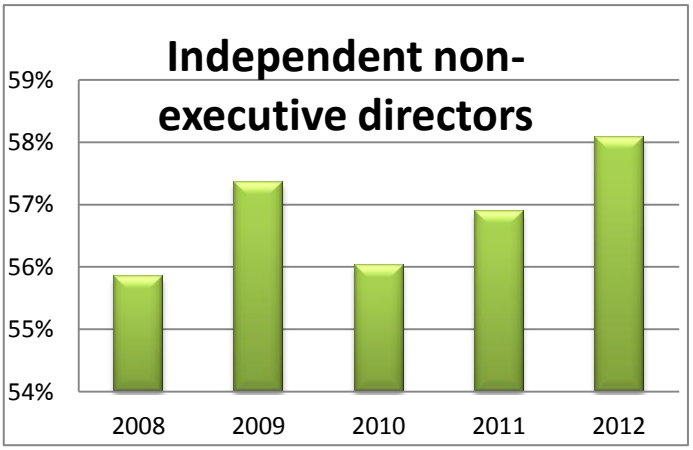

Figure 3: Average Annual Percentage of Independent Non-executive Directors

The other corporate governance element that refers to institutions which hold at least 3% of the firm's shares indicated an average of 26%. This result revealed that more than a quarter of shares of the selected firms were held by institutions owning at least 3% shares.

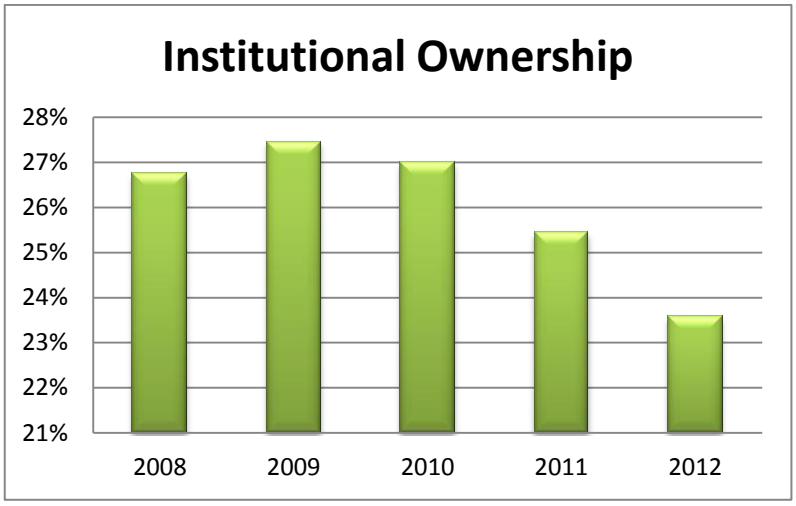

Figure 4: Average Annual Percentage of Institutional Ownership

The descriptive statistics also capture the result for variables considered as confounders for the relationship of corporate governance and dividend and the mean result is explained below:

The average tax is 23%, leverage (level of debt) is 39%, firm growth measured by price to book value of equity is averaged as 3.6 times, profitability, calculated as operating profit to total asset is 21%, average of firm size measured as a natural logarithm of total asset is 18 and firm risk measure by beta is 0 .9.

The spread observed from the ranges between minimum and maximum value of average values of tax, firm growth and leverage seems higher. Detailed investigation for any significant outliers was conducted and presented in the regression result section below.

4.2.2 Correlation analysis

Correlation analysis simply shows the strength of association between two quantitative variables, measured by Pearson's correlation coefficient. Correlation coefficient does not explain the causality of relationship. In some

instances, the presence of correlation between two variables might be spurious because of confounders or control variables. Therefore to rule out any spurious association and to check the causality or true association of variables a regression analysis was also performed.

Table 3: Correlation Table

	Dividend payout		Tax		Leverage		Growth		Profit		Firm Size		Firm Risk		Board_size		Women composition		Women composition		Inst. Ownership		CEO Duality
Dividend	1.000																						
Tax	0.094		1.000																				
Leverage	0.057		0.158	**	1.000																		
Growth	0.512	***	-0.048		0.121	*	1.000																
Profit	0.728	***	0.053		-0.030		0.304	***	1.000														
Firm Size	-0.428	***	0.050		0.254	***	-0.338	***	-0.479	***	1.000												
Firm Risk	-0.011		-0.052		-0.175	**	-0.273	***	0.012		0.303	***	1.000										
Board_size	-0.323	***	-0.024		0.275	***	-0.115		-0.357	***	0.382	***	-0.022		1.000								
Women composition	0.148	**	0.054		0.183	***	0.122	*	0.016		0.109		0.140	**	0.125	*	1.000						
Independent board	-0.021		0.038		-0.083		-0.005		-0.129	*	0.201	***	0.003		-0.051		0.104		1.000				
Inst.	-0.089		-0.073		-0.266	***	0.049		-0.205	***	-0.250	***	-0.142	**	0.006		-0.130	*	0.172	**	1.000		
CEO Duality	-0.043		-0.030		-0.056		-0.009		-0.024		0.037		0.095		0.218	***	-0.124	*	0.101		-0.187	***	1.000

The above result showed a positive correlation between the dividend and some independent variables such as tax, leverage, growth, profitability and women composition, with certain degree of variability on the correlation coefficient. The result also demonstrated a negative correlation between dividend pay and the dependent variables such as board size, independent non-executives on board, institutional ownership, CEO's duality, firm size and risk, with some degree of variability of correlation coefficient.

From the positively correlated variables, significant association with dividend was observed on the variables of growth and profitability at a p value of 0.01 and with women composition at a p value of 0.05. In the negatively correlated variables, a significant association with divided was observed in board size and firm size with a p value less than .01. The association of independent non-executive directors, institutional ownership, tax, leverage, firm risk and CEO's duality with dividend was reported as insignificant.

A strong positive association of dividend with profitability and growth is observed at correlation coefficients of 0.73 and 0.51 respectively. A significant association is also observed among independent variables even though the correlation coefficient is weak.

Results from the correlation analysis also assist to assess the existence of endogeneity and multicollinearity. Testing for endogeneity is vital when there is theoretical evidence that claims that the existence of causal relationship among independent variables. One of the methods to check endogeneity is to look for moderate to strong correlations among independent variables. In Table 3, there is no strong association between independent variables, therefore endogeneity and multicollinearity problems are not expected.

On the Pearson's correlation coefficient (r), there is no value that exceeds 0.8, which risks the presence of multicollinearity.

4.2.3 Regression analysis:

This section presents results of the regression analysis. It emphasises empirical testing of assessing the relationship between internal corporate governance structure and dividend policy. Based on the results of the regression analysis, the propositions developed in previous chapters were assessed.

The data was analysed on statistical software called R, which is most appropriate for the panel regression analysis. As the data is panel, to check robustness and get the best fit model, three regression models – fixed effect, random effect and pooled ordinary least square methods – were assessed.

a. *Test for regression assumptions:*

Before we settle on the selected regression model structure, a variety of tests that are related to assumption of multiple regressions were performed. The data was checked for multicollinearity, outlier effects, homoscedasticity, normality of residuals and serial correlation. The process and methods used are presented below.

Model Structure: it is assumed that the dividend payout is explained by a set of independent variables of corporate governance mechanisms called board size, women board composition, percentage of independent non-executive directors on board and institutional ownership and the list of control variables. As per the assumption of this model, there should not be a causal relationship between the explanatory variables (multicollinearity) and this issue is addressed, as there is no strong correlation among the independent variables that exceeds 0.8. Furthermore, the dependent variable, dividend payout should not explain the predictors (feedback loops).

Multicollinearity problem is not observed, as there is no significant correlation coefficient that exceeds 0.8 (Table 3 above), the values of the Variance Inflation Factor (VIF) do not exceed 10 (value presented below).

Table 4: Test for Multicollinearity - VIF

Variables	VIF
Board_size	1.53
Women	1.20
Nonexecs	1.26
Shares	1.55
CEO_chair	1.26
Tax	1.05
Leverage_CA	1.42
Growth_ME	1.33
Profit	1.72
Frmsize	2.32
Frmrisk	1.41

We also checked for the effect of outliers. Outliers represent observations with large residuals (Gujarati, 2004). The test for outliers was done using the Bonferroni test, which is depicted below.

Table 5: Test for Outliers Effect – Bonferroni Test

Observation	Rstudent	unadjusted p-value	Bonferroni p
78	-4.254	0.000	0.007
99	3.791	0.000	0.040

As per Gujarati (2004), automatic rejection of outliers is not a better option. Therefore, to rule out the impact of the outliers on the model, regression was run without these observations. However, the significance of standardised coefficient of the variables was reduced and the model fitness without those observations became weak. We therefore believe that those observations were important to establish the better model.

The test for heteroscedasticity was evaluated by running the Breusch - Pagan test. The small p-value presented below suggests the presence of heteroscedasticity.

Table 6: Test for Heteroscedasticity – Breusch – Pagan Test

```
Breusch-Pagan test
data: Dividend_TA ~ Board_size + Women + Nonexecs + Shares ….

BP = 253.2039, df = 50, p-value < 2.2e-16
```

The serial correlation effect was tested using the Breusch-Godfrey/Wooldridge test. The result indicates that there is an autocorrelation effect. We tried to cluster observations that had a correlation effect and to run the result that could not resolve the disturbance. We therefore acknowledged the presence of these constraints and proceed with presenting the results. We assumed that this effect could be because of the short period covered under this research, which is only five years.

Table 7: Test for Serial Correlation

```
Breusch-Godfrey/Wooldridge test for serial correlation in panel
models

data:  Dividend_TA ~ Board_size + Women + Nonexecs + ……
chisq = 15.0293, df = 5, p-value = 0.01024
alternative hypothesis: serial correlation in idiosyncratic errors
```

The other assumption critical for our regression is **normality of residuals.** We diagnosed it using the Shapiro-Wilk, W - test. The result shows that the value of W=0.939 at p-value=0.235. The p value is insignificant, which means that the non-normality hypothesis is rejected. Therefore, the residuals are normally

distributed. The graph below, which shows the distribution of studentised residuals also confirms the normality of the model.

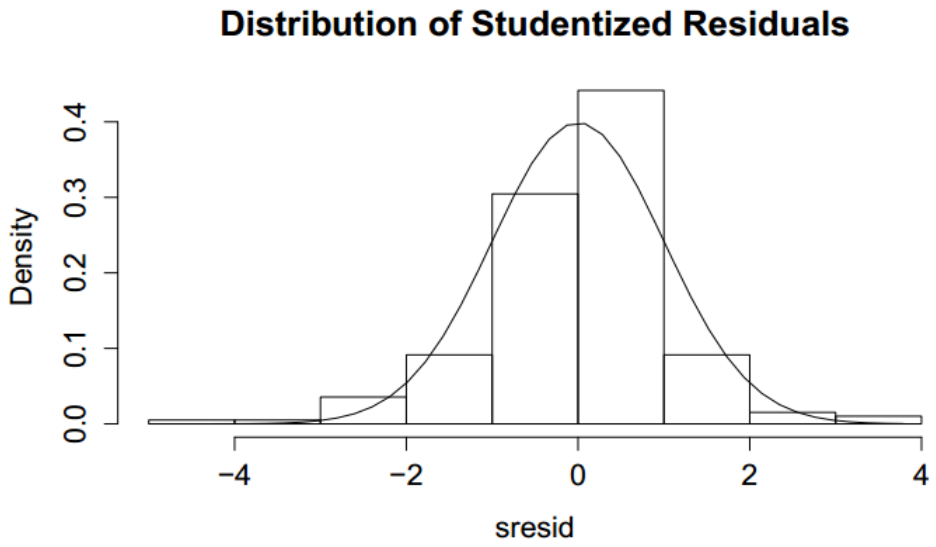

Figure 5: The Distribution of Studentized Residuals - Test for Normality

b. ***Panel regression model:***

A panel regression model was established to examine the relationship between corporate governance and dividend policy in JSE-listed companies. There are three commonly applied regression techniques for analysing panel data. These are the Fixed Effect Model (FEM), the Random Effect Model (REM) and pooled regression model. The pooled regression approach is the simplest approach but it disregards the effect of individuality of each company and the time; hence the FEM and REM techniques bound the effect of heterogeneity of firms and the effect of time (Gujarati, 2004). We have collected financial and corporate governance data of the 40 companies ranked as top in 2012. . It is perceived that these companies fall under different sectors and their nature of business, culture, size, and other firm-specific characteristics will have an effect on the regression results. Therefore, the pooled estimating technique was dropped.

The FEM assumes that the intercept may differ across individual sampled firms but it will not vary over time (time invariant), while the REM assumes that the

intercept of an individual unit is a random drawing from a much larger population with a constant mean value (Gujarati, 2004).

Gujarati (2004) indicates that, under REM, the company's intercept is then expressed as a deviation from this constant mean value or the variation across entities is assumed to be random and uncorrelated with the independent variables included in the model; REM resolves the problem of FEM by including time-invariant variables.

To choose between FEM, REM and the pooled regression model, a test called Hausman test and Lagrange Multiplier Test - (Breusch - Pagan) has been conducted. (Refer to Appendix B.) The significance of the p value (Appendix B) led to the selection of the random effect model.

Using the REM, we presented results for the three different methods of measuring dividend such as Model 1 – Dividend to total Asset; Model 2 – dividend payout ratio; and Model 3 – Dividend Yield (See Table 8 and Table 9 below).

Furthermore we have run two regressions for all three models. The first regression (Reg. 1) in Table 8 considers only the corporate governance variables to see their independent effect on dividend. The second regression (Reg. 2) in Table 9 combines both the corporate governance and control variables. We finally selected the regression that explains dividend better with higher R-square.

Table 8: Effect of Corporate Governance on Dividend (Reg 1)

	Model 1 Dividend to Asset			Model 2 Dividend Yield			Model 3 Dividend Payout		
	Estimate	**P(>|t|)**	**Signif**	**Estimate**	**P(>|t|)**	**Signif**	**Estimate**	**P(>|t|)**	**Signif**
(Intercept)	0.0674	0.007	**	0.0400	0.013	*	0.5868	0.029	*
Board_size	-0.0022	0.100		-0.0003	0.759		-0.0227	0.117	
Women	0.0840	0.047	*	-0.0260	0.396		0.4428	0.389	
Nonexecs	0.0094	0.669		0.0111	0.500		0.0721	0.792	
Shares	-0.0047	0.860		-0.0126	0.477		0.2255	0.448	
CEO_chair	0.0163	0.445		-0.0106	0.551		0.1084	0.708	
Adj. R^2 (%)	0.0312			0.0101			0.0347		
F-Stat.	1.2879			0.4062			1.2835		
Sig.of F-Stat.	0.2707			0.8442			0.2728		

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Table 8 presents the effect of all corporate governance variables without including any confounding variables in explaining the dividend. The result indicates that all the three models have a very low value of adjusted R^2 and are not statistically significant with a p value beyond 10%. This infers that the independent variables - board size, women composition on board, CEO's duality, independent non-executives on board and institutional ownership will not explain dividend payout. Therefore, in the next step, we included the control variables to investigate their contribution on the fitness to predict dividend.

Table 9: Effect of Corporate Governance and other Control Variables on Dividend (Reg 2)

	Model 1 Dividend to Asset			Model 2 Dividend Yield			Model 3 dividend Payout		
	Estimate	**P(>|t|)**	**Signif**	**Estimate**	**P(>|t|)**	**Signif**	**Estimate**	**P(>|t|)**	**Signif**
(Intercept)	0.173	0.026	*	-0.070	0.076	.	1.088	0.161	
Board_size	-0.002	0.087	.	-0.001	0.479		-0.028	0.062	.
Women	0.082	0.047	*	-0.021	0.452		0.543	0.279	
Nonexecs	0.027	0.210		0.008	0.610		0.039	0.883	
Shares	-0.008	0.753		0.009	0.597		0.176	0.563	
CEO_chair	0.002	0.911		-0.006	0.722		0.230	0.416	
Tax	0.001	0.864		0.002	0.731		0.600	0.000	***
Leverage_CA	0.042	0.039	*	0.018	0.139		-0.197	0.400	
Growth_ME	0.004	0.000	***	-0.001	0.267		-0.003	0.792	
Profit	0.084	0.000	***	0.056	0.000	***	-0.634	0.006	**
Frmsize	-0.010	0.024	*	0.006	0.014	*	-0.007	0.874	
Frmrisk	0.019	0.044	*	-0.010	0.148		-0.218	0.073	.
Adj. R^2 (%)	0.303			0.124			0.150		
F-Stat.	8.132			2.600			3.081		
Sig.of F-Stat.	0.000			0.004			0.001		

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

The regression result above tests the effect of corporate governance mechanism variables combined with the control variables on dividend pay. All the models are statistically significant at a p value <.01. Despite the fact that all the models are significant at 1%, model 1 has better fitness value of adjusted $R^{2,\ which}$ is equal to 30%. Model 2 and 3, which use dividend to net income and dividend yield respectively, have very minimum fitness value and this means that those variables are weak for explaining dividend.

From the analysis above, it was noted that Model 1 for which the dividend variable is defined as dividend to total asset has better fitness on both Reg. 1 and Reg. 2. The dividend has been measured using different variables on similar studies. Gugler and Yurtoglu (2003); Bin and Dutta (2012) presented similar models and they supported the measurement of dividend to asset. These authors claimed that the dividend variable will have a distorted value if firms reported nil or negative income. Besides, with the use of dividend yield (dividend per share to price per share) the value for the dividend variable can

easily be fluctuated because of the market perception over which the management has no control (Bin & Dutta, 2012).

It should be noted that the main purpose of this study was to assess the influence of corporate governance on dividend decision. To substantiate the process, we compared Reg 1 (results on Table 8), which considers the corporate governance variables to predict dividend, with Reg 2 (results on Table 9), which combines corporate governance and control variables. The adjusted R-square of Reg 2 is 30%, while for Reg 1, it is only 3%. Therefore, we decided to use the results of Reg 2 (Table 9) of Model 1 as it has better R-square. This regression result considered all corporate governance and control variables to assess the relationship between corporate governance and dividend policy. The results are presented in detail on Table 10 and Table 11 below.

Table 10: Regression Model and ANOVA

Model Summary[b]

Model	R Square	Adjusted R Square	Change Statistics			
			F Change	df1	df2	Sig. F Change
1	0.3224	0.30305	8.13163	11	188	0.000

a.Predictors: Board_size,Women ,Nonexecs , Shares,CEO_chair,Tax,Leverage_CA, Growth_ME,Profit ,Frmsize,Frmrisk

ANOVAa

Model		Sum of Squares	Df	F	Sig.
1	Regression	0.047	11	8.13163	0.000
	Residual	0.099	188		
	Total	0.147	199		

a. Dependent Variable: Dividend to Asset

b. Predictors: Board_size, Women ,Nonexecs , Shares, CEO_chair, Tax, Leverage_CA, Growth_ME , Profit ,Frmsize, Frmrisk

Table 11: Regression Coefficients

	Estimate	Std. Error	t-value	Pr(>|t|)	Signif
(Intercept)	0.173	0.077	2.250	0.026	*
Board_size	-0.002	0.001	-1.719	0.087	.
Women	0.082	0.041	2.004	0.047	*
Nonexecs	0.027	0.022	1.258	0.210	
Shares	-0.008	0.026	-0.315	0.753	
CEO_chair	0.002	0.022	0.113	0.911	
Tax	0.001	0.007	0.172	0.864	
Leverage_CA	0.042	0.020	2.082	0.039	*
Growth_ME	0.004	0.001	4.415	0.000	***
Profit	0.084	0.017	4.924	0.000	***
Frmsize	-0.010	0.004	-2.283	0.024	*
Frmrisk	0.019	0.009	2.031	0.044	*

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

The finding of the REM analysis in Table 10 suggests that the F-statistics are positive and statistically significant at a p value of .000. Therefore, the corporate governance and control variables can explain dividend. The adjusted R-square is 30%. This means that 30% of the variation on dividend in the sampled JSE-listed companies can be explained by the change in the values of corporate governance (board size, gender composition, CEO duality, institutional ownership and independent directors) and control variables (tax, firm size, firm risk, leverage, growth, profitability).

The explanatory effect of each variable is presented below under each proposition.

4.3 Results pertaining to Propositions:

4.3.1 Proposition 1: There is a significant inverse relationship between board size and dividend payout

The result of the regression analysis presented in Table 11 shows that the coefficient of board size is negative and statistically significant at a p value of .087. This means that one of the corporate governance variables, board size, has an effect on predicting dividend.

4.3.2 Proposition 2: There is a significant positive relationship between board independence and dividend payout

According to Table 11, the composition of independent non-executive directors on the board has a positive coefficient but is statistically insignificant (p value .210). Hence, the presence of independent non-executive directors will not affect the dividend payment.

4.3.3 Proposition 3: There is a significant positive relationship between women composition on board of directors and dividend payout

The result showed a positive and statistically significant association between gender diversification and dividend payment (p value .047).

4.3.4 Proposition 4: There is a significant positive relationship between institutional ownership and dividend payout

We further observed that the coefficient result related to institutional ownership of the corporate governance variable showed a negative and statistically insignificant association with dividend pay (p value .753).

4.3.5 Proposition 5: There is a significant positive relationship between separation of the roles of the CEO's and chairperson and dividend payout

The regression result displayed a statistically insignificant and positive association between separating the role of the CEO from the role of the chairperson of the board and the payment of the dividend with a p value of .911.

4.3.6 Results of control variables*:*

In addition to the corporate governance variables that are assumed to define dividend payments; control variables, which are mostly firm's characteristics showed a significant effect. As per Table 11 a salient effect of profitability and growth on dividend is observed at a p – value of .000 while leverage, firm size

and firm risk showed statistical significance with a p value of 5%. Firms listed on the JSE with high levels of profit and growths tend to pay more dividends. The other control variable, tax, is insignificant for predicting dividend.

4.4 Summary of the Results

This chapter has presented the results of the link between corporate governance and dividend payout.

The descriptive statistics result showed that the sampled companies listed on the JSE seemed to have a board size ranging from 8 to 25 and an average of 13. The average percentage of women on boards is 17%. The boards also comprised on average about 57% independent non-executive directors. Institutional shareholders that owned at least 3% of firms' shares represented about 26% of the shares on the sampled firms. The result also showed that the role of the CEO and the chairperson of the board was separated in almost all companies.

The assessment of the correlation of variables result showed that, out of the independent corporate governance variables, board size and women composition showed a significant correlation with dividend. From the control variables, firm growth, profitability, leverage, firm size and firm risk showed a statistical significant association. Nevertheless, the association of dividend with the other three corporate governance measures, such as institutional ownership, composition of independent non-executive directors and CEO's duality, showed a statically insignificant correlation. A similar result is observed on tax of the control variables.

CHAPTER 5. DISCUSSION OF THE RESULTS

5.1 Introduction

In the previous chapters we presented theoretical issues and established propositions related to the relationship between corporate governance and dividend. We also documented statistical results that tested the relevance of the propositions. In general, the existence of a relationship between corporate governance mechanisms and dividend was observed results. This chapter focused on discussing and reporting the findings and linking the results with empirical studies and explaining the econometric meaning of the results.

5.2 Relationship between Board Size and Dividend Payout

The finding of the panel data analysis shows that the effect of board size on dividend in the JSE-listed companies was significant at a p value of .1. The result shows that there is an inverse relationship between board size and dividend payment. We argue that a smaller board size represents strong governance as small size board are more effective at maintaining communications and promoting strong monitoring and a higher dividend is expected with a smaller board size.

The result suggests that an increasing board size is linked with a low dividend payment. This relationship can be explained by the fact that the presence of a large number of boards of directors could possibly exert pressure on management to retain resources to finance future growth. The negative coefficient is consistent with the finding of Abor and Fiador (2013), who reported a similar coefficient for South African firms.

5.3 Relationship between Board Independence and Dividend Payout

Table 11 showed that the percentage of independent non-executive directors is positively associated with dividend payment and is statistically insignificant. This finding explains that having more external directors will not have an impact on payment of dividends in JSE-listed companies. Our result is consistent with the result of the study on Sub-Saharan Africa (Abor & Fiador, 2013). Establishing the board of directors with more independent non-executive directors is one of the recommendations of King III. Empirical studies supported having a substantial number of independent non-executive directors to bring diversified expertise to firms and fair judgement to assist the management to effectively function and mitigate any agency problems (Belden et al., 2005b). While the positive coefficients were consistent with the findings of Abor and Fiador (2013); Belden et al. (2005a); Bin and Dutta (2012), Adjaoud and Ben-Amar (2010) and Al Shabibi and Ramesh (2011); the low significance contradicts their results as these authors have reported a positive and significant association of board independence and dividends. This variable was described as an important corporate governance tool to determine dividend and reduce agency cost.

5.4 Relationship between Gender Composition and Dividend payout

According to Table 11, it is interesting to see that the gender composition of the board has a positive and statistically significant relationship with dividend. The outcome showed that including women on boards of directors can contribute to reducing the agency cost (as per the outcome model) by paying dividends and returning the free cash in the hand of management.

To our knowledge, there is no research performed to study the direct relationship between women composition on boards and dividend and this finding will be a breakthrough for policy makers and experts in the field to undertake further study in this arena. Nevertheless, there is relevant research in South Africa that looked at the relationship between gender diversification on

boards and companies' performance. The research reported an insignificant contribution of gender diversification. The researcher believe that the reason for having less impact on performance was lower representation of women on boards (Swartz & Firer, 2005).

Women in leadership were credited for their strategic, analytical and visionary inputs (Nielsen & Huse, 2010). Our result demonstrated that increasing the number of women on boards contributes to higher dividends, which ultimately reduce agency cost. Based on the agency theory perspective, the contribution to good corporate governance of the presence of women on boards is in congruence with other past empirical studies (Adams & Ferreira, 2009; Campbell & Vera, 2010; Jurkus et al., 2011).

5.5 Relationship between Institutional Ownership and Dividend Payout

The regression result established a negative and insignificant relation between institutional ownership and dividend. This result explains that the presence of institutional investors in the firms listed on the JSE do not affect the dividend payment. Similar results was presented by Amidu and Abor (2006) in a study conducted on Ghanaian-listed firms. Amidu and Abor (2006) argue that firms pay dividends in order to avoid the cost associated with agency relationship.

Our result, however, contradicts the result obtained by Abor and Fiador (2013) and Han et al. (1999) who reported a statistically significant association between institutional ownership and dividend. Abor and Fiador (2013) conclude that institutional shareholders in South African firms influence better dividend payment to attract managerial monitoring by external capital providers. The departure of our finding from findings of other studies might possibly be due to the low average percentage of shares owned by institutions, as the descriptive data portrayed the average holding of institutions that own at least 3% of JSE listed firms at only 26%. This low percentage might be the explanatory factor that makes the presence of institutional owners non-significant on dividend.

5.6 Relationship between CEO's Duality and Dividend Payout

The result for the fifth corporate governance measurement, CEO duality, showed a positive and insignificant relation with dividend payment. This outcome implies the dividend payment from firms listed on the JSE is not imposed by separating the role of the CEO from the chairperson's. This result is consistent with the findings documented by Abor and Fiador (2013) and Bin and Dutta (2012), who found no significant association between CEO's duality and dividend payment.

As per the King III, the framework that advocates good governance principles, it is required for CEOs not to pursue the role of the chairperson. It is noted that most of the sampled companies separated this role and most of the data showed the value of this non-duality. The positive relationship of splitting the role of the CEO from the chairperson suggests that the board could monitor and challenge the management independently.

5.7 Results related to Control Variables

As suggested by empirical studies, variables that have possible effects on dividend pay decisions have been included in the regression analysis. Table 11 of the panel regression result established a strong significant and positive association of profitability with dividend. This result explains that when a firm reports more profit, it pays a substantial amount of dividend and this outcome is supported by Al-Malkawi et al. (2010); Al Shabibi and Ramesh (2011) and is consistent with the pecking order theory (Basiddiq & Hussainey, 2012).

The other control variable that showed a strong significance in determining dividend is growth. Empirical studies report that firms with higher growth opportunities tend to retain profit to finance business opportunities rather than distributing to investors; hence, the expected relationship between dividend and growth is negative. However, our result revealed a positive and significant correlation between dividend and growth. The result justifies that firms in South Africa that showed growth are also capable of paying dividends to their

shareholders. This result is consistent with the finding of Abor and Fiador (2013). We also argue that the capital market in South Africa is advanced and firms that have investment opportunities are likely to access the capital market to finance the new portfolios. The other possible explanation for the positive relationship between growth and dividend could be associated with the signalling theory. If such were the case, firms could pay dividends to convey the growth information to the market (Basiddiq & Hussainey, 2012; Firer et al., 2008).

Firm size also established a negative and significant association with dividend. Our finding is consistent with the results reported by Farinha (2003). The inverse influence of a firm's size on dividend pay contradicts the results of the previous studies, which confirmed that larger firms pay higher dividends, as they possibly have adequate resources and stable cash flows to pay dividends and have less transactional cost to raise capital (Abor & Fiador, 2013; Adjaoud & Ben-Amar, 2010; Al Shabibi & Ramesh, 2011; Basiddiq & Hussainey, 2012).

The possible interpretation of our finding is that large firms that have a plan to pursue expansion and expect high future growth are likely to build their assets and invest more on enlarging the business rather than paying dividends.

Firm risk shows a significant positive association with dividend. The result contradicts with existing theory, which expects a negative association between the two. The association could simply justify the signalling theory, in which case firms are trying to convey stable business performances (Al Shabibi & Ramesh, 2011).

We noted that leverage exhibited a significant positive effect on dividend pay of firms listed on the JSE. Our result contradicts previous findings, which have found that highly leveraged firms are likely to pay less dividend to maintain the debt covenant (Farinha, 2003). The direct relationship of leverage and dividend pay could be supported by the signalling theory, in which case firms would rely on debt to finance dividend pay to convince investors that the firm was performing well. The results can further explain that high-leveraged firms with high pay out could be beneficial to control managers' overinvestment

behaviours. Abor and Fiador (2013); Adjaoud and Ben-Amar (2010) have documented similar results on the relationship of leverage and dividend pay.

The effect of tax on dividend pay is positively correlated with dividend but insignificant. This coefficient contradicts the existing literature of the clientele effect theory, in which case tax and dividend are expected to show an inverse correlation (Abor & Fiador, 2013). The result also fails to support the expected reduction of dividend pay, as the result of the increased dividend tax, which has recently been introduced by South Africa Revenue Service (SARS) to replace the Secondary Tax on Companies (STC).

5.8 Conclusion

The overall result showed that two of the corporate governance measurement mechanisms, gender composition and board size significantly influence the decision to pay dividend by firms listed on the JSE.

Board size showed a negative and significant association with dividend payout which explains that a large board will pressurise management to hold onto dividend payments to support business opportunities. The result also showed that profitability and firm growth had a salient effect on dividend pay in South Africa.

The positive and significant association of gender diversification on payment of dividends that helps to reduce an agency problem is a new finding that we believe should be researched further. This finding is of great value to South Africa, a country that strives to have greater women representation at leadership level and that has a law promoting diverse gender participation.

CHAPTER 6. CONCLUSIONS & RECOMMENDATIONS

6.1 Introduction

This chapter summarises the findings of the research. It further cascades the possible recommendations, highlights the implications of the study and indicates the potential directions for future studies.

6.2 Conclusions of the Study

Corporate governance in South Africa is considered to be one of the best in emerging markets. Good corporate governance in South Africa has influenced corporate decisions, typically financing, investment and dividend policy.

Considering the issue of agency theory, the determinants of divided payout have not been explicitly concluded. In light of that, this study assessed the effect of corporate governance mechanisms, particularly the board structure (size, independence, and gender composition), CEO's duality, ownership concentration (institutional) on dividend behaviour of companies listed on the JSE.

The findings of the study showed a significant positive correlation between dividend and gender diversification. The random effect panel regression result also revealed that the board size has a significant effect on dividend pay decision.

The other corporate governance variable – independent non-executive composition – was found to be insignificant in determining the payment of dividends in JSE-listed companies. This variable has been a determining factor in firms' good performances. However, our regression result rejects the significance of this variable to predict dividend payments. The average percentage of external members was 57%, which means that more than half of the board were independent directors and this mix was in line with the requirement that King III suggests. The possible reason for the insignificance of

independent board composition on dividend could be associated with the nature of the businesses sampled for this study. Arosa et al. (2010) claim that in certain circumstances insiders could be preferred for their greater knowledge of the firm and contribute better to the strategic directions and planning.

The institutional investors identified as one of the measures of corporate governance also showed an insignificant but positive correlation with dividend pay. The outcome implies that variation on dividend did not result from any changes in the institutional shareholders stake. The average percentage of shares owned by institutions of the sampled firm is 26%. This value was not adequate enough to affect dividend.

The result further established an insignificant positive correlation of CEO's duality with dividend. In our sample of the top 40 companies, a significant number of the firms separated the role of the CEO from the chairperson's. This variable was actually invariant during the data analysis.

The positive contribution of gender diversification on dividend demonstrates that larger number of women representation on board lowers agency cost. As per the outcome model of Lopez de Silanes et al. (2000), good corporate governance reduces the agency cost and influences dividend pay.

The composition of women on boards of JSE-listed companies showed a gradual increase in the years considered for this study (i.e. 2008 to 2012). However, the average percentage of representation needs to improve from the current value of 18% to a higher level. This finding presents the first evidence of the contribution of gender diversification on dividend policy in JSE-listed companies.

The overall findings of the study contribute to the existing knowledge on the nexus of board diversity and dividend policy. We suggest that the corporate governance mechanisms should be viewed simultaneously with other confounding variables to predict dividend payout.

In general, our findings indicate that gender composition, board size, profitability, firm growth, firm size, firm risk and leverage are significant factors

to determine dividend decisions of JSE-listed firms while institutional ownership, board independence and tax are found to be insignificant in influencing dividend pay.

6.3 Recommendations

The study documented that the separation of the role of the CEO from the chairperson is not found a determinant factor to predict dividend payout. In the selected top 40 companies almost all the firms are compliant with this recommendation of King III. To ensure complete independence of the chairperson, we recommend further study be conducted that assesses the effect of complete independence of the chairperson from the company except for his/her directorship by looking at the chairperson's ownership of shares and related remuneration.

We further recommend that the result documented in this research on gender diversification inform policy makers to track and assess the existing enablers in South Africa that promote women participation on leadership and foster those enablers.

While conducting this research, we learned that there are databases that store companies' financial statements and information, however the information related to the corporate governance measures, such as board size, number of independent non-executive directors, women on board, institutional ownership and CEO's duality was not systematically organized on any central database. This information was manually collected from the firms' financial statements; and this has limited the researcher from expanding the sample size, especially collecting historical data back from 2008. We therefore, recommend that a platform that stores related information is initiated and developed. King III demands all companies listed in JSE generate annual integrated reports. It is noted that there is clear information that companies are putting together in their annual reports to comply with the requirement. Therefore, these available resources could easily be available for future research use.

6.4 Suggestions for further Research

The study considered the board structure of corporate governance mechanisms to assess their impact on dividend. King III recommends a broadened list of principles. We suggest future research to assess the relationship by including the scores of all the corporate governance principles indicated in King III.

This study focused on the companies that were ranked as the top 40 in 2012. Future studies can examine the effect of corporate governance on dividend decisions by expanding the sample size to include non-dividend-paying companies and perform a comparison of poorly- and good performing companies.

This study identified that most of the companies sampled had separated the role of the CEO from the chairperson. This signifies that the CEO's duality is rare in JSE-listed companies. Therefore, future studies could replace the CEO's non-duality device of good corporate governance by chairperson's independence to examine if the chairperson of the board is completely independent from the company except for his or her directorship.

Furthermore, future studies could focus cross country and look at the influence of gender diversification on boards on dividend pay decisions to help South Africa position itself on the relevant gender mainstreaming agenda.

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APPENDIX A

Research Instrument:

Appendex A

Companies' data sheet

For mining data

2013

Name of firms	JSE Code	Dependent Variable					Independet Variables						Control Variables						
		Dividend paid					# of total Board Size	# of women on the board	# of non-executive board directors	is CEO's chair of the board (yes=1, no=0)	total # of shares	# shares owned by blockholders (shareholder own>5%)	Long term Debt @ BV	Equity @BV	Price per share (MV)	Earning before Interest and tax	total Asset	Firm Beta	Remark(note any additional information)
		Y1	Y2	Y3	Y4	Y5													
Firm1																			
firm2																			
Firm3																			
Firm4																			
Firm5																			
Firm60																			

APPENDIX B

Panel Regression Models

Selecting the Panel Regression Model:

a. Random effects

	Estimate	Std. Error	t-value	Pr(>|t|)	Signif.
(Intercept)	0.173	0.077	2.250	0.026	*
Board_size	-0.002	0.001	-1.719	0.087	.
Women	0.082	0.041	2.004	0.047	*
Nonexecs	0.027	0.022	1.258	0.210	
Shares	-0.008	0.026	-0.315	0.753	
CEO_chair	0.002	0.022	0.113	0.911	
Tax	0.001	0.007	0.172	0.864	
Leverage_CA	0.042	0.020	2.082	0.039	*
Growth_ME	0.004	0.001	4.415	0.000	***
Profit	0.084	0.017	4.924	0.000	***
Frmsize	-0.010	0.004	-2.283	0.024	*
Frmrisk	0.019	0.009	2.031	0.044	*

Signif. codes:0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Total Sum of Squares:	0.147
Residual Sum of Squares:	0.099
R-Squared :	0.322
Adj. R-Squared :	0.303

F-statistic: 8.13163 on 11 and 188 DF, p-value: 1.4465e-11

b. Fixed effects model

Coefficients :

	Estimate	Std. Error	t-value	Pr(>|t|)	
Board_size	-0.001	0.001	-0.801	0.425	
Women	0.034	0.044	0.766	0.445	
Nonexecs	0.024	0.022	1.099	0.273	
Shares	0.014	0.028	0.505	0.614	
CEO_chair	-0.002	0.021	-0.111	0.912	
Tax	0.001	0.006	0.136	0.892	
Leverage_CA	0.055	0.025	2.235	0.027	*
Growth_ME	0.002	0.001	2.562	0.011	*
Profit	0.060	0.017	3.583	0.000	***
Frmsize	0.016	0.009	1.747	0.083	.
Frmrisk	0.009	0.010	0.898	0.371	
Signif. code:0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1					
Total Sum of Squares:	0.07884				
Residual Sum of Squares:	0.06354				
R-Squared :	0.19404				
Adj. R-Squared :	0.14456				

F-statistic: 3.26112 on 11 and 149 DF, p-value: 0.00050905

c. Pooled OLS results

Coefficients :

	Estimate	Std. Error	t-value	Pr(>|t|)	
(Intercept)	0.021	0.054	0.397	0.692	
Board_size	-0.002	0.001	-1.468	0.144	
Women	0.076	0.041	1.845	0.067	.
Nonexecs	0.028	0.023	1.189	0.236	
Shares	0.018	0.025	0.706	0.481	
CEO_chair	0.002	0.029	0.066	0.948	
Tax	0.018	0.012	1.551	0.123	
Leverage_CA	0.028	0.016	1.687	0.093	.
Growth_ME	0.005	0.001	6.263	0.000	***
Profit	0.215	0.021	10.327	< 2.2e-16	***
Frmsize	-0.004	0.003	-1.307	0.193	
Frmrisk	0.022	0.011	2.006	0.046	*

Signif. codes:0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Total Sum of Squares:	1.1155
Residual Sum of Squares:	0.3817
R-Squared :	0.6578
Adj. R-Squared :	0.6184

F-statistic: 32.8567 on 11 and 188 DF, p-value: < 2.22e-16

d. Test1: Random or Fixed:

Hausman Test

data: Dividend_TA ~ Board_size + Women + Nonexecs + ...
chisq = 7.8031, df = 11, p-value = 0.7308
alternative hypothesis: one model is inconsistent

e. Test2: Random effects or OLS

Lagrange Multiplier Test - (Breusch-Pagan)

data: Dividend_TA ~ Board_size + Women + Nonexecs + ...
chisq = 138.8039, df = 1, p-value < 2.2e-16
alternative hypothesis: significant effects

APPENDIX C

Consistency matrix

Research problem stated here					
Sub-problem	**Literature Review**	**Hypotheses or Propositions or Research questions**	**Source of data**	**Type of data**	**Analysis**
The study intends to assess the effect of the corporate governance mechanisms particularly the board structure (size, independence, gender composition), CEO's duality, ownership concentration (insider and institutional) on dividend behaviour of companies listed on JSE	Abor and Fiador (2013);Bin and Dutta (2012);Farinha (2003) Adjaoud and Ben-Amar (2010);Al Shabibi and Ramesh (2011);Adams and Ferreira (2009);Boone, Casares Field, Karpoff, and Raheja (2007); Rossouw et al. (2002);Grant (2003);Coles et al. (2008);Fields and Keys (2003);Erhardt et al. (2003); Black (1976); Campbell and Vera (2010);Guest (2009);Han et al. (1999);Wang and Clift (2009);Firer et al. (2008);K. April et al. (2007);Lopez de Silanes et al. (2000);Kakabadse and Korac-Kakabadse (2002);	Proposition 1: There is a significant inverse relationship between board size and dividend payout Proposition 2: There is a significant positive relationship between board independence and dividend payout Proposition 3: There is a significant positive relationship between the composition of women on the board of directors and dividend payout Proposition 4: There is a significant positive relationship between intuitional ownership and dividend payout Proposition 5: There is a significant positive relationship between separation of the roles of chief executive officer and chairperson and dividend payout	McGregor BFA data base, firms' financial statements from their website and Johannesburg Stock Exchange website	Nominal and Categorical	Panel regression analysis