

**THE EFFECT OF DIVIDEND POLICY ON THE SHAREHOLDERS WEALTH
OF FIRMS LISTED ON THE NAIROBI SECURITIES EXCHANGE**

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DECLARATION

This research project is my original work and has not been presented for a degree in any other University.

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This research project has been submitted for examination with my approval as the University Supervisor.

Signature **Date.....**

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DEDICATION

I dedicate this project to my parents Andrew Ndirangu and Rebecca Ndirangu, and my brother Antony Wambugu.

ACKNOWLEDGMENT

First, I would like to thank God for enabling me to come this far and for giving me the strength, grace and mercy as I did my research work.

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ACRONYMS & ABBREVIATIONS

CMA	Capital Markets Authority
DPS	Dividend Per Share
DY	Dividend Yield
GEMS	Growth Enterprise Market Segment
GLS	Generalized Least Squares
IFS	International Finance Corporation
M&M	Modigliani and Miller
MSMEs	Middle Small and Medium Enterprises
NSE	Nairobi Securities Exchange
REPS	Retained Earnings Per Share
OLS	Ordinary Least Square

ABSTRACT

The study examined the effect of dividend policy on the shareholders wealth of firms listed on the Nairobi Securities Exchange. To achieve the objectives of the study, quantitative research design was employed. More specifically, descriptive research design was adopted. Secondary data was utilized for empirical analysis. The target population for the study was all listed companies at the Nairobi Securities Exchange as at the year 2018. This constitutes the 65 companies listed across 13 market segments. However, the companies listed under GEMs were excluded from the analysis leaving 60 companies as the target population. The study period spanned from 2009 – 2018. Data was collected from company's respective annual audited financial reports. Panel data analysis was employed for empirical analysis. The findings of the random effects model were that shareholders wealth is positively determined by the dividend pay-out ratio. Similarly, dividend yield had a positive effect on the shareholder wealth though insignificant.

The study therefore concludes that dividend policy matters in determining shareholders wealth. The cross – market segment analysis found dividend policy effect is more pronounced in the banking and insurance segment. For the construction and services segment and Construction and Allied segment dividend yield is significant in determining shareholder wealth. Dividend policy was insignificant in determining the shareholder wealth for agricultural and manufacturing market segments. Based on the findings, the study recommends the need for the investors to diversify their investments portfolios to maximize their wealth. In addition, the firms should consider DPR more than DY because shareholders are more likely to understand dividend pay – out ratio as opposed to dividend yield.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Dividend policy is one major financial puzzle that has received substantial attention insofar as empirical examination is concerned. The puzzle arises amid two theoretical strands in which one asserts that dividend policy does not matter and the other theory that asserts dividend policy matters. Dividend relevance model was developed by Gordon's (1959) insisting importance of dividend policy in a firm. Dividend payment - shareholders value nexus has been widely researched even of to date. Abdul (2017), asserts that in the absence of dividends payment, a 43 percent decline in earnings per share is recorded in Nigerian capital market. Khan (2018) concludes that the dividend irrelevancy model does not hold in the case of insurance industry of Pakistan. Gul et al. (2012) studied the how dividend distribution decision affects shareholders' wealth and concluded that investor preferred current dividend as opposed to future retention policy and capital appreciation hence supporting dividend relevance theory. However, Omodero (2017) concludes that value of shareholders equity is not determined by the dividend payment.

This study was hinged on three core theories. First is the Dividend Irrelevance Theory (Modigliani and Miller, 1961). According to this theory, shareholders value is dependent majorly on the capacity of the firm to earn. Secondly, is the dividend relevance model was developed by Gordon (1959) which insists on the importance of dividend payment for a firm. Thirdly is the Agency theory developed by Jensen and Meckling (1976). The model

asserts that the agency relationship between shareholders and managers of the firm can only be obviated by managers paying shareholders dividend.

A global review on the performance of the dividend policy reveals that nowadays dividend payout is a second order priority for the firms. The first priority of a firm would be investments and liquidity management which are considered core for firm's stability. With the occurrence of the global financial crises of 2007 / 2008, that led to policy pronouncements towards adoption of Basel III mainly within the financial sector, more companies have shifted their attention towards liquidity management and asset quality in attempt to cushion themselves from potential crisis in future.

1.1.1 Dividend Policy

Kapoor (2009) defines dividend policy as a rule or a strategy that a company uses to structure its dividend payout to shareholders. The managers use dividend policy for distributing proportions of profits to the firm shareholders. Further, Moyer (2001) defines dividend policy as a distribution formula that managers apply in distributing earnings to shareholders. A third definition of dividend policy is given by Van Horne (2001) who defines the policy as the division guideline between how much earnings are retained for future expansion and what is paid out to the shareholders as dividends. The definition concurs with the definition by Paramasivan and Subramanian (2009).

Different studies have applied different and similar measures of dividend policy in their analysis. Ordu, Enekwe and Anyanwaokoro (2014) in examining the effect of dividend payment on the shareholders wealth of quoted firms in Nigeria measured dividend policy by three measures namely: payout ratio, dividend paid for every share, and the yield on the

dividend. Omodero (2017) in analyzing shareholders value – dividend payment nexus in brewery firms listed at the Nigerian stock exchange measured dividend policy by dividend per share. Abdul (2017) studied the impact of Dividend Policy on Shareholders' Wealth within the agricultural sector in Nigeria. In the study dividend policy was measured by dividend paid for every share and dividend payout.

1.1.2 Shareholders' wealth

Shareholders' wealth is the present value of the expected future returns to the owners. It is what the shareholders earn from their equity invested in a firm. Akit, Hamzah, & Ahmad, (2015) asserts that any dividend pay out to the shareholders or a rise in the stock price is beneficial to shareholder. The latter is the capital gain from share while the former is simply dividend. A general measure of the shareholders wealth is the current market value of the common stock of the firm. The market price of the firm's stock at the capital market reveals the wealth of the shareholders at any given time period. According to Azhagaiah & Priya (2008) it is this market price of the firm's common stock that informs the company investment, financing and dividend decision. In financial theory, it is always assumed that firm managers are always concerned with the maximization of shareholders' wealth as their primary goal. However, this is not always the reality given that principal – agency problem is a life fact (Azhagaiah & Priya, 2008).

In the company, financial managers are working as agent of owners' (equity holders) in the company. Therefore, the first objective of financial managers in a company is to maximize value of shareholders which is demonstrated by the share market value. According to Sharfman (2012), shareholders' wealth maximization can therefore be viewed as a

corporate governance issue. This concern should spurn from shareholder compensation policy (dividend policy), new investments policy as well as the firm's strategic direction.

Different studies have applied different and similar measures of shareholder wealth in their analysis. Ordu, Enekwe and Anyanwaokoro (2014) in examining the effect of dividend payment on the shareholder wealth of quoted firms in Nigeria measured shareholder wealth by market prices of shares. Omodero (2017) measured shareholders value by market value per share in Nigerian firms with a focus on the brewery industry. Khan (2018) measured shareholders wealth using earning per share in his study focusing on insurance industry in Pakistan. Abdul (2017) used by price earning per share to measure shareholders' wealth in his study focusing the agricultural sector in Nigeria.

1.1.3 Dividend Policy and shareholder wealth

The linkage between dividend policy and shareholders wealth has been one of top – ten financial puzzles in the financial literature. According to Khan (2018) dividend payout, the ratio of retention and the dividend paid for every share positively affects shareholder's wealth thus supporting the dividend relevance theory in Pakistan. Similar relationship in the same market is reported by Ansar, et al. (2015). However, seminal work by Litzenberger and Ramaswamy (1979) assert that shareholders prefer capital gains on their equity as opposed to getting dividends. According to tax preference theory, lower dividend payouts are preferred by risk averse shareholders in order to avoid current taxation.

In addition, the clientele effect theory asserts that the relationship between dividend policy and shareholders wealth is dependent on the type of the investors and shareholders. Some shareholders prefer to plough back profits as opposed to dividend payout. This will therefore lead to a lower dividend payout and consequently reduce the shareholders wealth.

These differences based on different theoretical propositions warrant the need to reexamine the relationship between the two in different markets as time changes (Litzenberger and Ramaswamy, 1979)

The relationship between dividend policy and shareholders wealth has wide research coverage. Abdul (2017) asserts that in the absence of dividends payment, firms' earning per share will fall by 43 percent of the firms in Nigerian stock market. Khan (2018) in analyzing the impact of dividend policy on shareholders' wealth among the listed insurance companies in Pakistan conclude the theory of dividend irrelevancy does not hold in the case of insurance industry of Pakistan. Gul et al. (2012) studied the dividend policy - stockholders' wealth nexus concluded that investor preferred current dividend as opposed to future retention policy and capital appreciation hence supporting dividend relevance theory. However, Omodero (2017) concludes that shareholders' wealth is not determined by the dividend payment.

1.1.4 Nairobi Securities Exchange

Nairobi Stock Exchange can be traced back to 1920's before creation of the Kenyan state. In 1954 the Nairobi Securities Exchange was registered under the Societies Act as a voluntary association of stock brokers without participation of Africans and Indians until after independence in 1963. In 1980's the Kenyan government embarked on policy formulation that will enhance private sector's contribution to the economy. This led to formation of the Capital Markets Authority in 1989 whose mission is to facilitate the development of orderly, fair and efficient capital markets in Kenya through effective regulation (NSE, 2012).

In 1991 the NSE was registered under the Companies Act as a private company limited by shares. The NSE has come a long way to being rated best performing market by IFC globally in 1994. In January 2014 the NSE closed the year as the top performing African market signaling best performance in shareholder wealth, putting the Kenyan bourse on the international investor spotlight. In May 2015 the NSE slipped to second position in Africa according to African Alliance market data. It however continues to record and exhibit strong performance as economic growth resulting in high corporate earnings continue to positively impact equity markets in the region (NSE, 2012).

Looking at the dividend performance at the NSE, in June 2019, 20 NSE firms paid investors a record Sh135bn dividend for the 2018 financial year. This was a 42 percent increase compared to total dividends paid by the top 20 blue chip companies in the year 2017. However, it's notable that the record payout was hugely supported by Safaricom and bank dividends, which helped to soften the blow on shareholders who incurred Sh419 billion paper losses from last year's bearish performance of the stock market. In terms of the market size, the value of the bourse was 1,556,598.00 thousand rising to 1,786,376 thousand in 2015 and further 1,876,049 thousand at end of year 2016 (NSE, 2016). However, the earning per share for the bourse has been on a decline trend falling from Ksh. 2.30 in year 2014 to Ksh. 1.18 and Ksh 0.71 in year 2015 and 2016 respectively (NSE, 2016). Regarding the payout ratio, the market pay – out ratio averaged at 16.52 rising to 41.53 in 2015 but falling to 38.03 as at end of year 2016. In year 2014, NSE market recorded a dividend yield of 1.85 percent which marginally improved to 1.98 as at year 2015 before slightly falling to 1.84 percent as at end of year 2016 (NSE, 2016). This

performance evidence mixed results for the bourse hence the need for firm level analysis with regard to individual listed firms.

1.2 Research Problem

Dividend policy has been one of the financial puzzles that has received substantial attention insofar as empirical examination is concerned. The puzzle arises amid two theoretical strands in which one assert that dividend policy does not matter and the other theory that assert dividend policy matters. Modigliani and Miller (1961) dividend irrelevant theory urges that the corporate's dividend policy does not influence its value thus shareholders wealth remains unchanged. On the other hand, Gordon's (1959) urges on the contrary by asserting that dividend policy in deed matters. This therefore calls for the studies into the puzzle to validate or challenge dividend payment- shareholders wealth nexus.

In the recent past, the occurrence of the global financial crises of 2007 / 2008 has led to the management of the corporates focusing on liquidity management for stability. Corporates have shifted their attention towards liquidity management and asset quality in an attempt to cushion themselves from potential crisis in future (Alqahtani and Mayes, 2018). This therefore could seem to validate the dividend irrelevance theory from the management point of view with the management's main goal being corporates stability. However, this sets the ground for the agency problem since the focus towards liquidity management by the management may not be in tandem with the shareholders goal of wealth maximization. This would mean the management still must take into consideration dividend payout since as postulated by the agency theory, the dividend payout is a good remedy in solving agency problem.

Vast empirical literature does exist globally on dividend policy - shareholders wealth nexus. Khan (2018) and Ansar, et al. (2015) found that theory of dividend irrelevancy does not hold in the Pakistan market. Gul et al. (2012) found that investor preferred current dividend as opposed to future retention policy and capital appreciation hence supporting dividend relevance theory. Abdul (2017), concluded that in absence of dividends payment, firms' earning per share will fall by 43 percent for firms listed at the Nigerian stock market. The study concluded that payment of dividends by agricultural firms is likely to attract investments to the sector thus enhancing their profitability. Khan (2018) concluded that the theory of dividend irrelevancy does not hold in the case of insurance industry of Pakistan.

In Kenyan context, Wanjohi (2017) analyzed insurance firms in the Kenya with reference to dividend policy - shareholders wealth. A sampled 9 insurance firms was drawn from 49 firms for 2008 – 2015 period. Random effects model of panel data analysis was employed and found dividend payment to have a positive impact on shareholders' value. On the contrary, Muriithi (2015) examined the effect of dividend policy on shareholders' value for companies listed at the Nairobi securities exchange. The study found weak effect of rate, dividend yield and shareholders' value.

Given the conflicting results in the two studies, the question would be, what is the linkage between dividend payment and shareholders' value across different market segments in Kenya? This is informed by the failure of the local studies to offer grounds for comparison across different market segments. This study sought to fill in this gap by adopting a cross - market segments' analysis thus enabling conclusion on the dividend irrelevancy theory across different market segments at the Nairobi securities exchange. As such the study

sought to unearth, how is the shareholders' wealth affected by the dividend policy of the respective firms across different market segments in Kenya?

1.3 Research Objective

The objective of the study was to examine the effect of dividend policy on the shareholders' wealth in Nairobi Securities Exchange.

1.4 Value of the Study

The value of this study is three – fold. First, is contribution to policy makers. The finding of the study would be of importance to policy makers such as the national treasury and capital market authority. The findings of the study will be essential in determining the significance of the dividend payment among the Kenyan firms. This will inform policy pronouncements with regard to taxation of the dividend by the relevant policy makers.

Secondly, is the benefit to investors. The findings of the study would be of significance to the investors in informing them on how dividend policy influences the value for their equity. This will be core in informing the investors as to whether to advocate dividend payment or to consider re-investing the earnings for future gains.

Lastly, the study findings would be core in validating the theories underpinning this study namely: dividend irrelevant theory, dividend relevant theory and the agency theory in so far as the Kenya capital market is concerned.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter covers literature review around the dividend policy and shareholders' wealth. The chapter takes an account of various theories underpinning the study around this area of study. Further, it examines the determinants of the shareholder's wealth from an empirical perspective. The chapter further review the empirical studies in the area of dividend policy and shareholders' wealth and concludes summarizing literature coting the research gaps that the study will seek to fill in.

2.2 Theoretical Review

This section covers the theories upon which the study was underpinned. More specifically, the section covers the Dividend Irrelevant Theory, Dividend Relevant Theory and the Agency theory. The models together with their critique and applicable in the study are discussed below as follow:

2.2.1 Dividend Irrelevance Theory

Modigliani and Miller (1961), developed dividend Irrelevance Theory in 1961. The theory states that the shareholders wealth is not increased by the dividend policy of the firm. According to the theory, the firm's payment of dividend to the shareholders matters. The theory however based this argument on the assumption of perfectly competitive markets. The price of the firm's common market is deemed to be of great importance in determining the value of the firm which in turn informs the decision towards dividend payment.

However, the Dividend Irrelevance Theory has been greatly criticized on the ground of its assumptions. First is the assumption of a perfect market structure which is unrealistic given that perfect markets are an ideal situation and not a reality (Black, 1976). Secondly, the theory assumes that there is no difference between stock dividends and capital gains which is not realistic. Further, the theory assumes zero transaction costs which is not the reality. Lastly is the assumption of information symmetry across all market participants, which does not hold given that markets portray high levels of information asymmetry (Allen, Bernardo and Welch (2000). The Dividend Irrelevance Theory is relevant in this study in the conceptualization of the study. By applying the Dividend Irrelevance Theory, the study was capable in conceptualizing testing significance of dividend payment in a firm.

2.2.2 Dividend Relevance Theory

Gordon (1959) developed the dividend relevance theory in 1959. Dividend relevance theory asserts the importance of the dividend payment policy as far as the determination of shareholders wealth is concerned. The theory proponents further argue that the shareholders wealth can be critically influenced by the dividend policy at hand that the managers of the firm assumes. According to Gordon (1959), given that majority of the investors are mainly risk averse, they therefore place preference on the value for money today as opposed to the value for money in the future. As such they therefore prefer to be paid dividends as opposed to reinvesting the money and awaiting the future returns from such investments.

However, the theory is criticized on a number of accounts. The assertion by the theory that dividend payment trades – off investors’ uncertainty and risk averse nature of the investors is not valid (Fama and French, 2001). This assertion is not valid since different investors

have different risk appetite and different investment time horizons. Therefore, it is not necessarily the case that dividend payout will reduce investor's uncertainty. The Dividend Relevance Theory is relevant in this study in the conceptualization of the study. By applying the Dividend Irrelevance Theory the study was capable in conceptualizing testing whether dividend policy of a firm is relevant or not.

2.2.3 Agency Theory

Jensen and Meckling (1976) proposed agency theory in 1976. The theory asserts agency relationship between owners of the company and managers of the firm can only be obviated by managers paying shareholders dividend. The agency – principal problem is generally deemed to occur given that the owners of the firm may not always be in constant monitoring of the actions by the managers. At sometimes, the managers may pursue some decisions which are of their own benefits as opposed to the benefits of the shareholders. The agency theory therefore comes in from the argument that the managers result into paying dividends to the shareholders in order to deal with the agency – principal problem.

However, the theory is criticized in that it is not always the case that higher agency cost will imply high dividend payment. The company's management have quite frequently access to insider information on the company's operations hence the existence of market information asymmetry. This could lead to the collapse of the agency theory (Stiglitz, 1985). The Agency theory is relevant in this study in the conceptualization of the study. By applying the Agency theory, the study was capable in conceptualizing testing the significance of dividend payment for a firm. From the conceptualization of the agency theory, dividend payment is mainly used to trade – off the agency problem an argument that can be validated through empirical analysis in this study.

2.3 Determinant of Shareholders Wealth

2.3.1 Profitability of the Firm

The value of the shareholder is deemed to be positively determined by the profit levels of the firm. Pandey (2005) reports a positive significant relationship between firm profit levels and shareholder value for all Kuala Lumpur Stock Exchange listed firms. Similarly, while analyzing what determines shareholders' value for Nigerian listed firms, Asogwa (2009) found a positive profit – shareholder value nexus. However, Ramezani et al (2001) found that though firm profit has positive effect on the shareholders wealth, the effect is not necessarily significant. Their argument here is that firm growth is always core to make the effect of profit levels on shareholder wealth significant.

A significant positive correlation exists between accounting profit and shareholder wealth (Ghasemi and Sarhadi, 2014). The study by Gharaibeh and Dawud (1998) discussed the effect of the content of the accounting statements and their informational contents published about the public companies of Jordan, as it concluded that the variable (return on the equity) helps to explain more than 60% of the changes in the market value of the companies' stocks. The relationship between the profitability and shareholder wealth in Amman Stock Exchange shows insignificant relationship, it showed also that the investors' tendency to play speculative role rather than long term investment (Al Ajlouni, 2011 and 2008). Another study proved the low coefficient of determination and the lack of a statistically significant relationship between the return on assets and return on equity on one hand and between the added market value on the other hand (Zureiqat, 2011).

2.3.2 Size of the Firm

The size of the firm is generally optimally measured by the value of the firm's assets. The higher the value of the firm's assets, the larger the size of the firm and the opposite is always true. Generally, larger firms are assumed to be experiencing growth over years. Larger firms have higher potential of being listed at the capital markets compared to smaller firms. This in turn is likely to attract more investors in investing in such firms from the fact that they are viewed to have potential for growth in so far as shareholder value is concerned.

According to early work by Agrawal (1996) a negative link between the size of the firm and the value of the firm is expected. The argument here is that large firms are majorly faced with the agency – principal problem thus leading to the deterioration of the shareholders' value. In addition, large firms are more likely to be sophisticated and diversified in their operations thus have a negative effect to their respective shareholders value. This is further supported by Lang and Stulz (1994) who assert that diversification arising from large firm size causes shareholder wealth destruction. However, Taswan (2003) reports the contrary by reporting that firm size has a positive influence on the value of the firm.

2.3.3 Leverage Levels

The financing mix of the firm has a major contribution to the shareholders value. As cited in the capital structure theory by Modigliani and Miller (1961) the debt – equity ratio of a firm is core in determining the value of the firm at any point in time. Seunghyun Yoon, Jaemin, Seoki (2015) a highly levered firm is likely to benefit from the tax shield, which

is viewed as a tax saving thus positively influencing the value of the firm positively. However, it is notable that this comes with the risk of bankruptcy thus indicating that high leverage levels can be counterproductive leading to decline in the shareholder wealth.

In support to the benefits of the firm debt through tax shield the works by Bowman (1979), Christie (1982), Mandelker and Rhee (1984) and Bhandari (1988) can be clearly cited as good examples. Their works allude to the fact that increased leverage levels improves shareholders' wealth among the Russian firms. According to the work by Jensen (1986) the value of the firm will definitely surge up with the firms leverage levels. The argument behind this conclusion is that high debt levels act as a limiting factor for managers to undertake decisions at their discretion.

2.4 Empirical Studies

A vast empirical literature does exist in as much as linkage between dividend payment and shareholders value is concerned. Abdul (2017), studied the impact of Dividend Policy on the shareholders' value within the agricultural sector in Nigeria. The study applied an ex – post facto research design in its undertaking. The population and the sample for the study were the firms listed under the agricultural segment of Nigeria stock market. Multiple regression of ordinary least square (OLS) was applied for empirical model estimation where the earning per share was regressed on dividend per share, dividend payout and price earning. The finding of the study were that in absence of dividends payment, firms' earning per share will fall by 43 percent for firms listed at the Nigerian stock market. The study concluded that payment of dividends by agricultural firms is likely to attract investments to the sector thus enhancing their profitability. However, this study fell short of modelling

since it relied on Multiple regression of ordinary least square as opposed to panel analysis thus unable to capture individual heterogeneity of the firms.

Khan (2018) studied insurance industry in Pakistan in attempt to elicit facts on the dividend payment – shareholder wealth nexus. Analysis was hinged on the need to reconcile the two strands in literature on the positive effect dividend payment on shareholder value and those supporting the positive effect dividend policy on shareholder wealth. The sample for the study was 17 listed insurance companies in Pakistan drawn using non-probability convenience sampling for 2012-2015. The conclusion of the study was that the theory of dividend irrelevancy does not hold in the case of insurance industry of Pakistan. However, this study fell short of modelling since it relied on Multiple regression of ordinary least square as opposed to panel analysis thus unable to capture individual heterogeneity of the firms.

Ansar, et al. (2015) investigated the link between dividend policy and shareholders' value in Pakistan market. Study used 30 firms as a sample from such sectors, textile, chemical and cement with the multiple regression model being employed for empirical analysis. The market price per share was used as measure of shareholders' wealth with the return on equity, retained earnings per share, lagged price, dividend per share being adopted as the explanatory variables to the model. The finding indicated positive and robust relationship of dividend policy with stockholders' wealth. The conclusion of the study was that the theory of dividend irrelevancy does not hold for the industries in the sampled sectors in Pakistan. However, this study fell short of modelling since it relied on Multiple regression as opposed to panel analysis thus unable to capture individual heterogeneity of the firms.

Gul et al. (2012) studied the dividend policy - stockholders' wealth nexus. In drawing the sample for the study, quota random sampling tool was applied to select 10 listed companies out of 216 companies from different sectors during period of 2015. Questionnaires were applied in data collection from the sampled companies. The study found that dividend payment had a positive influence on the shareholders' value. In conclusion, the findings concluded that investor preferred current dividend as opposed to future retention policy and capital appreciation. The critique is that the study used primary data as opposed to secondary data thus possibility of subjectivity in the responses.

Within the brewery industry in Nigeria, Omodero (2017) examined shareholders wealth maximization from the focus of dividend payment policy of the companies. The study adopted a cross-survey research design in its undertaking. The market value per share which measured shareholders' wealth was regressed on dividend per share and the earnings per share. The study findings were that dividend policy has no effect on the shareholders wealth. The conclusion was that shareholders' wealth is not determined by the dividend payment. However, this study fell short of modelling since it relied on Multiple regression as opposed to panel analysis thus unable to capture individual heterogeneity of the firms.

Ordu, Enekwe and Anyanwaokoro (2014) examined dividend payment – shareholders' value among the Nigerian quoted firms in Nigeria. The study involved 17 listed firms in the Nigerian bourse for 2000 to 2011 period. By applying the ordinary least squares estimation techniques the study found that dividend per share causes a rise in the value of the rise in market price per share of quoted firms in Nigeria. However, this study fell short of modelling since it relied on ordinary least square estimation model as opposed to panel analysis thus unable to capture individual heterogeneity of the firms.

An analysis of UK retail industry was conducted by Chenchehene and Mensah (2015) with regard to shareholder value drawing inferences from 25 firms operating in the retail industry. The study reported significant effect of dividend payout on shareholder wealth. Further, Akit, Hamzah, and Ahmad (2015) focused on the Shariah compliant versus non – shariah compliant firms in Malaysia 2004 – 2013 period. Fixed-Effect Generalized Least Squares estimation techniques was relied for empirical analysis. The finding was that dividend policy significantly determines shareholders' value for Shariah and non-Shariah compliance companies.

In Kenyan context, Wanjohi (2017) analyzed insurance firms in the Kenya with reference to dividend policy - shareholders wealth. A sampled 9 insurance firms was drawn from 49 firms for 2008 – 2015 period. Random effects model of panel data analysis was employed. A positive effect of dividend payment on shareholders' value was found. However, the study concluded that a negative significant linkage of the two. However, the study was silent on the fixed effects model and the pooled regression model of the panel analysis but only reported the findings of the random effects model.

Wanje and Otinga (2019) studied the influence of dividend policy on stock performance among banking sector firms listed in Nairobi securities exchange, Kenya. They concluded dividend policy is a significant predictor of stock performance, thus trading firms that craft and implement viable dividend policies can boost their stock performance. The study recommended that trading companies should craft and implement viable dividend policies that will attract a positive yield on their stock performance.

2.5 Conceptual Framework

Based on the empirical literature review, the conceptual framework upon which the study will be underpinned is presented in figure 2.1. The conceptual framework links the dependent variable to the independent variable upon which the empirical model will be developed.

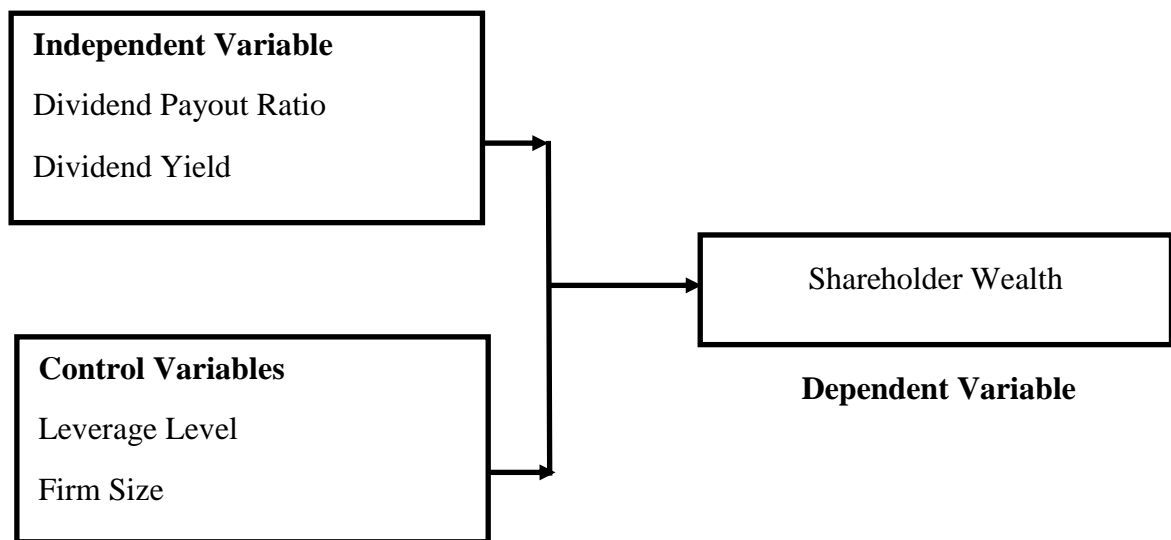


Figure 2.1: Conceptual Model

2.6 Summary of the literature review

It is evident that two strands of literature do exist with regard to the dividend payment and shareholders' value still exists. One strand of literature supports the dividend irrelevancy theory (Omodero, 2017) while the other negates the dividend irrelevancy theory (Wanjohi, 2017, Ansar, et al., 2015 and Khan 2018). Therefore, there was need for a research to find out whether the two strands reconciled over years. Secondly, it was evident that reviewed studies have focused on one segment of the security market. Wanjohi (2017) and Khan (2018) focused on the insurance segment, Omodero and Amah (2017) focused on brewery

industry while Abdul (2017) focused on the agricultural sector. Therefore, they failed to offer grounds for comparison across different market segments. A cross - market segments' analysis was considered thus enabling conclusion on the dividend irrelevancy theory across different market segments of the Nairobi Securities Exchange.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The methodology that was used in the execution of the study in pursuit of the study objectives is covered in this chapter. More specifically, the chapter covers the research design that was employed in the study, study target population study sample, how the data for the study was collected as well as the data analysis.

3.2 Research Design

The research design is the study framework by definition. Research design can be either quantitative or qualitative. Quantitative research design entails measuring of specific research objectives by applying objective or specified statistical procedures. On the other hand, qualitative research design involves studying human behavior, opinions, themes and motivations with limited use of statistical data analysis. The study employed quantitative research design. This is because the study was based on secondary data from the Nairobi Securities Exchange. Descriptive research design was employed. The adoption of the descriptive research design was informed by its ability to explore and offer detailed explanation on the study's unit of analysis. In this case, the study sought to explore and explain how dividend policy affects shareholder wealth in listed companies across market segments. The selection of the descriptive research design was informed by the research objective. In addition, descriptive research design is a structured research process and relies more on probability sampling in drawing a sample from the target population.

3.3 Population

The target population for the study was all listed companies at the Nairobi Securities Exchange as at the year 2018. This constitutes the 65 companies listed across 13 market segments.

3.4 Sample

First the study used simple random cluster sampling in drawing the sample from the target population. First, from the target population of 65 companies, 5 companies listed under the Growth Enterprise Market Segments (GEMs) were eliminated since they are new entrant in the market and dividend policy was not likely to be of significance in them leaving the target population of 60 listed firms. Then the 60 firms remaining in the target population were organized in the market segments under which they are listed. The market segments were therefore the clusters.

3.5 Data Collection

Secondary data was employed for empirical analysis in the study. Company's respective annual audited financial reports was the main source of the secondary data. The reports were obtained from the Capital Markets Authority (CMA). The study period was 10 years ranging from year 2009 to 2018.

3.6 Data Analysis

Panel data analysis was employed for empirical analysis. This was informed by the fact that the data for the study includes both the cross sectional aspect (listed companies) and the time series aspect of the data (2009 – 2018). More specifically, pooled model was

employed for analysis. Further to the overall regression analysis, inferential statistics analysis was employed to examine whether the shareholder wealth changes across the market segments with the changes in the dividend policy. In addition, data analysis entailed generation of the descriptive statistics for the model variables.

3.6.1 Analytical Model

The analytical model for the study was defined in equation 1 as follows:

$$Wealth_{it} = \beta_0 + \beta_1DPR_{it} + \beta_2DY_{it} + \beta_3LEV_{it} + \beta_4SIZE_{it} + \varepsilon_t \dots\dots\dots(1)$$

Wealth is the shareholders wealth measured by Log of Company Book Value.

DPR is the dividend payout ratio measured by dividing dividend declared by profit after tax,

DY is the dividend yield measured by dividend per share as a proportion of market price per share

LEV is the leverage level measured by debt to equity ratio

SIZE is the firm size measured by log of total assets

3.6.2 Diagnostic Tests

The following test were carried out in the data analysis.

(i) Correlation Test

Correlation analysis is mainly conducted to determine the nature and degree of associations among the model variables. It is a crucial test in informing presence or absence of multicollinearity in the regression model analysis. According to Gujarat (2012) when more

than two predictor variables in a multiple regression have a high relationship then that phenomenon is called multicollinearity (Gujarat, 2012). In this study, the Pearson correlation coefficient was applied to test for the level of correlation among the model variables.

(ii) Multicollinearity Test

Multicollinearity is a regression problem that arises from interrelation between the independent variables in a model. To test for multicollinearity, the Variance Inflation Factors (VIF) is usually applied. Generally, the VIF is equal to 1.0 if no factors are correlated, which implies that there is no multicollinearity. If the VIF is greater than 1.0, the predictors may be moderately correlated but still below the multicollinearity threshold (Gujarat, 2012). A VIF of more than 10 would invalidate the estimated model implying the presence of multicollinearity the regression model.

(iii) Heteroscedasticity Test

Heteroscedasticity is an econometric problem of not constant but rather keeps on changing. The presence of heteroscedasticity problem implies that the estimated model coefficients are not Best, Linear and Unbiased Estimators (BLUE). This further implies that any hypothesis testing carried out using such coefficients and their respective standard errors would be inconsistent. To test for the heteroscedasticity problem, Breusch-Pagan-Godfrey test was used.

CHAPTER FOUR

DATA ANALYSIS, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter entails presentations of the data analysis outcome. In addition to results presentation, the chapter takes into account interpretation of the results and the discussion of the results in line with the study objectives.

4.2 Descriptive statistics

Based on the descriptive statistics for the model, the results indicate that in total there were 550 observations. This obtained from the data that was drawn from 55 listed firms spanning between 2009 and 2018. The mean of shareholders wealth measured by natural log of the market value of the company was 15.5838 for period under analysis with the minimum value of 12.7008 and maximum of 18.4721. On the distribution, shareholders' value has a positive skewness of 0.2368 but non – normally distributed as evidenced by kurtosis value of 2.0872, which is less than 3.

The average dividend pay-out ratio, was 22.23 percent for the 55 listed firms under analysis for 2009 – 2018 period with a minimum pay-out ratio of 0.00 and a maximum of 43.11 percent. On the distribution, the dividend pay-out ratio had a positive skewness of 1.3197 but was non – normally distributed as evidenced by kurtosis value which is greater than 3 implying that it was fat – tailed.

The mean Dividend Yield was 2.2852 for the 55 listed companies analysed with minimum of 0.000 and maximum level of 9.7238. The distribution of dividend yield portrayed a

positive skewness of 2.4913 but was fat – tailed with a kurtosis value of 8.5434 which is greater than 3.0 kurtosis value of a normally skewness variable.

The mean leverage level measured by the debt to equity ratio was 0.1897 with minimum of 0.0034 and maximum level of 0.7382. Firm leverage levels had a positive skewness of 1.9449 and no– normal distribution of 4.2618 kurtosis value implying fat tails in its distribution. The firm size measured by natural log of total assets had a mean value of 16.5269 with minimum of 12.5282 and maximum level of 19.9634. Firm size was positively skewed with a no– normal distribution of 2.4902 kurtosis value implying thin – tailed distribution.

In overall, on the distribution of the variables, results indicate that all variables have positive skew to their mean values. Further, on the distribution still, all variables are non – normally distributed as evidenced by their respective kurtosis values. However, it is notable that statistically, financial data is deemed to be leptokurtic thus negating the assumption of normal distribution.

Table 4.1: Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max	Skewness	Kurtosis
Ln value	550	15.5838	1.4508	12.7008	18.4721	0.2368	2.0872
Dividend payout ratio	550	0.2223	1.4342	0.0000	0.4311	1.3197	5.0695
Dividend Yield	550	2.2852	1.7005	0.0000	9.7238	2.4913	8.5434
Leverage	550	0.1897	0.3272	0.0034	7.3816	1.9449	4.2618
Ln size	550	16.5269	1.4689	12.5282	19.9634	0.3384	2.4902

4.3 Regression Analysis

4.3.1 Diagnostic Tests for Random Effects, Fixed Effects or Pooled OLS Models

The diagnostic tests are used to identify the best model of study. Various estimation approaches can be applied to panel data, including; fixed effects, random effects and the pooled OLS model. The researcher carried out carried the following panel data diagnostics to identify the best model for the current study.

Random Effects or Pooled OLS Model

The Breusch Pagan LM test $\chi^2 = 701.33$ with the probability value of 0.000 ($\text{Prob} > \chi^2 = 0.0000$). Since the probability is less than 0.05 this indicates that there are differences on technical efficiency among the listed firms. Based on the Breusch Pagan test results the OLS pooled model is dropped thus selecting the random effects model.

Table 4.2: Lagrange Multiplier Test

Estimated results:	Var	sd = sqrt(Var)
Invalue	2.1048	1.4508
e	0.8417	0.9174
u	1.0339	1.0168
Test: $\text{Var}(u) = 0$		
$\chi^2(01) = 701.33$		
$\text{Prob} > \chi^2 = 0.0000$		

Random Effect Model or Fixed Effect Model – Hausman test

The Hausman results indicate a χ^2 value of 6.3 with P-value of 0.117 ($\text{Prob} > \chi^2 = 0.177$). Since the p - value of the χ^2 is greater than the 5 percent thus adopting the random effects model. This confirms that the firms listed at the NSE are dynamic operations,

technical efficiencies among other dynamics. They are therefore not homogeneous in their operations and characteristics. This finding implies that there is endogeneity problem since firms are different from each other in terms of their operations, dividend policy, dividend yield, size, shareholder wealth and in their leverage levels.

Table 4.3: Hausman Test Results for Model 1

Ho: difference in coefficients not systematic				
	(b)	(B)	(b-B)	sqrt(diag(V_b-V_B))
	Fixed	Random.	Difference	S.E.
DPR	0.1480	0.1114	0.0366	0.0230
DY	-0.1297	-0.0929	-0.0369	0.0379
Ln size	0.2661	0.2885	-0.0224	0.0465
Leverage	-0.2331	-0.2694	0.0363	0.0180
chi2(4) = 6.31			Prob>chi2 = 0.177	

4.3.2 Regression Estimation results – Random effects model

The results of the random effects model are presented in table 4.3.

Table 4.4: Random effects model results

Ln value	Coefficient	Std. errors	Z - statistics	P>z	[95% Confidence Interval]	
Dividend payout ratio	0.1114	0.0504	2.21	0.027	0.012656	0.210112
Dividend yield	0.0929	0.0540	1.72	0.085	0.19861	0.012899
Ln size	0.2885	0.0643	4.48	0.000	0.162365	0.414607
Leverage	-0.2694	0.1336	-2.02	0.044	-0.53124	-0.00762
Constant	10.8986	1.0536	10.34	0.000	8.833604	12.96365
R ² within = 0.0481				Wald chi2(4) = 33.54		
R ² between = 0.1376				Prob > chi2 = 0.0000		
R ² overall = 0.1039						

Results on the regression models indicate that shareholders wealth is positively determined by the DPR. Empirical models results indicate that a one-unit increase in the dividend payout ratio leads to 0.1114 units increase in shareholders wealth other factors held constant. The positive effect of the DPR is significant at 5 percent significance level as supported by the respective p – value which is less than 5 percent ($P > z = 0.027$).

Similarly, dividend yield positively effects on the owner's wealth. A one-unit increase in the dividend yield causes 0.0929 units increase in shareholders wealth ceteris paribus. The positive effect of the dividend yield is insignificant at 5 percent significance level as supported by the respective p – value which is greater than 5 percent ($P > z = 0.085$).

The firm size positively causes owner's wealth at the NSE. When firm size changes by one unit shareholder wealth increases by 0.2885 units with the effect being significant at 5 percent significance level as evidenced by the respective p – value which is less than 1 percent significance level ($P > z = 0.000$). Further, firm leverage levels had a negative effect on the shareholder wealth with a one-unit change in the firm leverage levels reducing the owners wealth by 0.2694 units. The effect is significant evidenced by the probability value less than 5 percent significance level.

4.4 Interpretation and discussion of Random effects model results

The study sought to examine the effect of dividend policy on the shareholders wealth of firms listed on the Nairobi Securities Exchange. The findings of the study are that indeed dividend policy matters in the determination of the shareholder wealth at the NSE listed companies. The positive and significant effect of the dividend policy on shareholder wealth

in the Kenyan listed firms is a manifestation that the investors in these firms value dividends as a return to their investments.

From the findings, the payment of dividends plays a crucial role in determining the value of the firm. This is majorly reflected through the changes in the share prices. Based on the findings, it is expected that the dividend paying firm is more likely to have the highest value in the market arising from share price. Given that the results imply that dividend matters, the implication here would be that shareholders would be reluctant to sell their shares cum dividend but rather hold on and earn the dividend after which they could sell the shares ex – dividend. Further, there is an implication that investors may not be much keen on the capital gain but rather prefer dividend as a return to their equity.

The findings of the study are in agreement with the findings by Gul et al. (2012) studied the dividend policy - stockholders' wealth nexus. In drawing the sample for the study, quota random sampling tool was applied to select 10 listed companies out of 216 companies from different sectors during period of 2015. Questionnaires were applied in data collection from the sampled companies. The study found that dividend payment had a positive influence on the shareholders' value. In conclusion, the findings concluded that investor preferred current dividend as opposed to future retention policy and capital appreciation.

Similar findings were reported by Ordu, Enekwe and Anyanwaokoro (2014) who examined dividend payment – shareholders' value among the Nigerian quoted firms in Nigeria. The study involved 17 listed firms in the Nigerian bourse for 2000 to 2011 period. By applying

the ordinary least squares estimation techniques the study found that dividend per share causes a rise in the value of the rise in market price per share of quoted firms in Nigeria. However, the study findings were in contrary to the findings by Khan (2018) studied insurance industry in Pakistan in attempt to elicit facts on the dividend payment – shareholder wealth nexus and concluded that the theory of dividend irrelevancy does not hold in the case of insurance industry of Pakistan.

Within the brewery industry in Nigeria, Omodero (2017) shareholders wealth maximization from the focus of dividend payment policy of the companies. The market value per share which measured shareholders' wealth was regressed on dividend per share and the earnings per share. The study findings were that dividend has no effect on the shareholders wealth. The conclusion was that owner's wealth is not determined by the dividend payment. However, this study fell short of modelling since it relied on Multiple regression as opposed to panel analysis thus unable to capture individual heterogeneity of the firms.

4.5 Diagonistic Tests

The following diagonistic tests were carried out in the data analysis.

Correlation Test

Correlation analysis is mainly conducted to examine the degree of associations among the model variables. It is a crucial test in informing presence or absence of multicollinearity in the regression model analysis. According to Gujarat (2012) when more than two predictor variables in a multiple regression have a high relationship then that phenomenon is called

multicollinearity (Gujarat, 2012). In this study, the Pearson correlation was applied to test for the level of correlation among the model variables.

Table 4.5: Correlation coefficients

	Ln value	DPR	Dividend Yield	Leverage	Ln size
Ln value	1.0000				
DPR	0.1185	1.0000			
Dividend Yield	0.0720	0.1471	1.0000		
Leverage	-0.1459	-0.1373	-0.0113	1.0000	
Ln size	0.3191	0.3543	0.3852	-0.0301	1.0000

The correlation coefficients found that the shareholders wealth is positively related to dividend pay-out and dividend yield. Further, the shareholders wealth had a positive association with the firm size. Shareholders wealth was negatively associated to leverage levels. However, the positive correlations were very weak as they are below the 50 percent mark. In overall looking at the correlation coefficient among all the model variables, the correlation analysis reveal that there are no two variables that are strongly correlated with each other hence no possibilities of multicollinearity especially when running the pooled OLS model. Majority of the relationships among the variables are below the 50 percent level.

Multicollinearity Test

Multicollinearity is a regression problem that arises from interrelation between the independent variables in a model. Variance Inflation Factors was applied to test for the presence / absence of multicollinearity in the model. From the test, the mean VIF for the

model was 1.17 which is less than 10.0. This implies that there was no multicollinearity in the model.

Table 4.6: Multicollinearity Test results

Variable	VIF	1/VIF
Ln size	1.31	0.760996
Dividend yield	1.18	0.850891
Dividend payout ratio	1.17	0.858199
Leverage	1.02	0.980068
Mean VIF	1.17	

Heteroscedasticity Test

Heteroscedasticity is an econometric problem of not constant but rather keeps on changing. The presence of heteroscedasticity problem implies that the estimated model coefficients are not Best, Linear and Unbiased Estimators (BLUE). This further implies that any hypothesis testing carried out using such coefficients and their respective standard errors would be inconsistent. To test for the heteroscedasticity problem, Breusch-Pagan-Godfrey test was used.

Table 4.8: Heteroscedasticity Test

Breusch-Pagan test	
Null hypothesis: Homoscedasticity	
Chi2(1) = 2.42	Prob > chi2 = 0.1201

The results show that the probability values for the respective chi square statistics for the Breusch-Godfrey LM was 12.01 percent which is greater than 5 percent indicating absence of heteroscedasticity in the model.

4.6 Cross - market segments analysis

A cross-market segment analysis reveals lot of dynamics. Estimation of the random effect models for different market segments indicates that dividend positively effects shareholders wealth in all market segments. However, the effect of the dividend is pronounced and significant fir the banking market segment and Insurance market segment. For the construction and services segment and Construction and Allied segment dividend yield is significant in determining shareholder wealth with the dividend pay-out ratio being significant for the investment market segment. The results are clear that dividend is insignificant in determining the shareholder wealth for agricultural and the manufacturing firms. However, this findings is in contrary to the findings by Abdul (2017), in Nigerian agricultural sector.

Table 4.9: Cross - markets segment analysis results

Agriculture segment						
Ln value	Coefficient	Std. Errors.	Z - stat	P>z	[95% Confidence Interval]	
Dividend payout ratio	0.2242	0.1468	1.53	0.127	-0.51197	0.063469
Dividend yield	0.4966	0.7164	0.69	0.488	-1.90074	0.907609
Ln size	0.4731	0.2711	1.74	0.081	-0.05831	1.004495
Leverage	11.7066	6.9831	1.68	0.094	-1.98001	25.39312
Constant	7.9694	3.4441	2.31	0.021	1.219119	14.71969
Banking segment						
Ln value	Coefficient	Std. Errors.	Z - stat	P>z	[95% Confidence Interval]	
Dividend payout ratio	0.0487	0.0621	0.78	0.033	-0.07304	0.170472
Dividend yield	0.0821	0.0942	0.87	0.014	-0.26669	0.102558

Ln size	0.5979	0.1297	4.61	0.000	0.343565	0.852169
Leverage	2.5401	2.3300	1.09	0.276	-2.02668	7.106839
Constant	5.1953	2.4324	2.14	0.033	0.427807	9.962725
Commercial and services segment						
Ln value	Coefficient	Std. Errors.	Z - stat	P>z	[95% Confidence Interval]	
Dividend payout ratio	0.0469	0.1778	0.26	0.792	-0.39539	-0.301549
Dividend yield	2.7217	0.8222	3.31	0.001	0.33316	1.11023
Ln size	0.0052	0.2100	0.02	0.980	-0.40643	0.41673
Leverage	1.5385	1.4631	1.05	0.293	-1.32918	4.406184
Constant	19.7219	4.2386	4.65	0.000	11.41444	28.0294
Construction and allied segment						
Ln value	Coefficient	Std. Errors.	Z - stat	P>z	[95% Confidence Interval]	
Dividend payout ratio	0.2485	0.2797	0.89	0.374	-0.29974	0.796666
Dividend yield	0.2087	0.0897	2.33	0.020	0.032833	0.384555
Ln size	0.4702	0.1824	2.58	0.010	0.82768	0.11268
Leverage	-7.8803	1.2945	-6.09	0.000	-10.4175	-5.34307
Constant	24.4184	3.0026	8.13	0.000	18.53347	30.3034
Energy segment						
Ln value	Coefficient	Std. Errors.	Z - stat	P>z	[95% Confidence Interval]	
Dividend payout ratio	0.1492	0.0803	1.86	0.063	0.30659	0.008122
Dividend yield	0.8421	0.7418	1.14	0.256	0.61189	2.295999
Ln size	0.5957	0.0921	6.47	0.000	0.415168	0.776274
Leverage	-0.5922	1.2017	-0.49	0.622	-2.94753	1.763124
Constant	3.9078	2.2070	1.77	0.077	-0.41776	8.233439
Insurance segment						
Ln value	Coefficient	Std. Errors.	Z - stat	P>z	[95% Confidence Interval]	
Dividend payout ratio	0.6633	0.1826	3.63	0.000	0.305436	1.021088
Dividend yield	0.3371	0.1763	1.91	0.026	0.68255	0.008404
Ln size	0.1111	0.2322	0.48	0.632	0.34397	0.5661
Leverage	-0.0158	0.1401	-0.11	0.910	-0.29051	0.258814
Constant	13.2531	3.8602	3.43	0.001	5.687242	20.8188
Investment segment						
Ln value	Coefficient	Std. Errors.	Z - stat	P>z	[95% Confidence Interval]	
Dividend payout ratio	0.5083	0.0814	6.24	0.000	0.348708	0.667928
Dividend yield	0.2347	0.2869	0.82	0.413	0.32752	0.797018
Ln size	0.4089	0.0472	8.66	0.000	0.316419	0.501458

Leverage	2.3895	0.5642	4.23	0.000	1.283632	3.495438
Constant	7.5373	0.9937	7.59	0.000	5.589721	9.484799
Manufacturing segment						
Ln value	Coefficient	Std. Errors.	Z - stat	P>z	[95% Confidence Interval]	
Dividend payout ratio	0.1849	0.1893	0.98	0.329	-0.55595	0.186225
Dividend yield	0.0495	0.0933	0.53	0.596	-0.13332	0.232341
Ln size	0.0127	0.1444	0.09	0.930	-0.29575	0.270329
Leverage	-4.6331	1.0349	-4.48	0.000	-6.66141	-2.60487
Constant	16.4268	2.2338	7.35	0.000	12.04861	20.8049

CHAPTER FIVE

SUMMARY, CONCLUSION AND POLICY IMPLICATIONS

5.1 Introduction

This chapter presents the summary and conclusions arising from study findings. Further are the policy implications based on the results of data analysis.

5.2 Summary of the findings

The study sought to examine how dividend policy affects shareholders wealth. The focus was on all the firms in the Nairobi Securities Exchange. The study was motivated by the fact that dividend policy is one major financial puzzle that has received substantial attention insofar as empirical examination is concerned. The puzzle arises amid two theoretical strands in which one asserts that dividend policy does not matter and the other theory that asserts dividend policy matters.

The analysis entailed 55 listed firms spanning between 2009 and 2018. The mean of shareholders wealth measured by natural log of the market value of the company was 15.5838 for period under analysis with the minimum value of 12.7008 and maximum of 18.4721. On the distribution, shareholders' value has a positive skewness of 0.2368 but non – normally distributed as evidenced by kurtosis value of 2.0872, which is less than 3.

The average dividend payout ratio was 22.23 percent for the 55 listed firms under analysis for 2009 – 2018 period with a minimum payout ratio of 0.00 and maximum of 43.11 percent. On the distribution, the dividend pay - out ratio had a positive skewness of 1.3197

but was non – normally distributed as evidenced by kurtosis value which is greater than 3 implying that it was fat – tailed.

The mean Dividend Yield was 2.2852 for the 55 listed companies analysed with minimum of 0.000 and maximum level of 9.7238. The distribution of dividend yield portrayed a positive skewness of 2.4913 but was fat – tailed with a kurtosis value of 8.5434 which is greater than 3.0 kurtosis value of a normally skewness variable.

Out of the three panel data models, the random effects model was elected as the most appropriate model for analysis. This confirms that the firms listed at the NSE are dynamic operations, technical efficiencies among other dynamics. They are therefore not homogeneous in their operations and characteristics. This finding implies that there is endogeneity problem since firms are different from each other in terms of their operations, dividend policy, dividend yield, size, shareholder wealth and in their leverage levels.

The random effects model results found that shareholders wealth is significantly and positively determined by the DPR. Similarly, divided yield positively affects the owner's wealth though the effect was insignificant. This confirms that indeed dividend policy matters in the determination of the shareholder wealth at the NSE listed companies. In addition, the cross – market segment analysis found that, dividend policy effect on shareholders wealth varies across the different markets segments with effect being pronounced more in the banking and insurance market segments.

On diagnostic test, the correlation coefficients found that the shareholders wealth is positively related to dividend pay-out and dividend yield. Further, the shareholders wealth had a positive association with the firm size. Shareholders wealth was negatively associated to leverage levels. However, the positive correlations were very weak as they are below

the 50 percent mark. Further, multicollinearity problem was found to be absent among the explanatory variables of the model. Similarly, heteroscedasticity was found to be absent from the model.

5.3 Conclusion and Recommendations

Random effects model was the most appropriate model as opposed to fixed effects and pooled effects model. This confirmed dynamics in operations, technical efficiencies among other dynamics. They are therefore not homogeneous in their operations and characteristics. This finding implies that there is endogeneity problem. The random effects model output found that shareholders wealth is positively and significantly determined by the dividend pay-out ratio. Similarly, dividend yield had a positive effect on the shareholder wealth at the NSE listed firms. The study therefore concludes that dividend policy matters in determining shareholders wealth in Kenya. Based on this finding, the study recommends for the firms to take into consideration the DPR more than DY in order to maximize of on their shareholders' wealth. From the findings, the effect of the dividend payout ratio significantly determines shareholders' wealth compared to dividend yield. This is because shareholders are more likely to understand dividend pay – out ratio as opposed to dividend yield.

For the control variables, shareholder wealth is positively affected by firm size. However, the firm leverage levels was found to have a negative effect on the shareholder wealth. The cross-market segment analysis reveals lot of dynamics in so far as the relevance or irrelevance of dividend policy is concerned. Estimation of the random effect models for

different market segments indicates that dividend policy has a positive effect on the shareholders wealth in all market segments.

However, from the cross – market segment, dividend policy effect on shareholders wealth varies across the different markets segments. The effect of dividend policy on shareholders wealth is more pronounced and significant for the banking market segment and Insurance market segment. For the construction and services segment and Construction and Allied segment dividend yield is significant in determining shareholder wealth with the DPR being significant for the investment market segment. Results are clear that neither the DPR nor DY is significant in determining the shareholder wealth for firms listed under the agricultural segment and the manufacturing market segment.

Based on this finding, the study recommends the need for the investors to consider diversifications of their investments portfolios in order to maximize their wealth. The cross-market segments analysis indicates that dividend policy matters in some market segments while in others it does not matter. It is also notable that within the market segment where dividend policy matters the effect is likely to be more pronounce in some firms within that segments than in others. This therefore calls for the need for investors' diversification of their investments portfolios.

Regarding the leverage levels, listed companies need to enforce prudent policies in managing their debt levels. Policies on the optimal capital structure are crucial in this case to ensure that the firm is not highly levered, which would be a source of financial risk that would adversely affect shareholders wealth. Considerations of internal funding as opposed

to external funding in line with the Pecking Order theory of firm financing would be a worth venture for consideration by these firms.

5.4 Limitation of the study.

With regard to the sample, the study was biased given that it did not take into account the firms listed at the Growth Enterprise Market Segments (GEMS). This therefore left out the new market entrants in the market that were listed from the year 2013 upon the establishments of the GEMs. All the firms listed at GEMs are Small and Medium Enterprises. As such, their exclusion imply that the study failed to take into accounts the listed MSMEs in its analysis. Further, In addition, the study fell short of taking into account the market-related factors such as the market competition. Further, the study did not take into consideration the macroeconomic environment within which companies operate. These were the limitations of the study given that the incorporation of market related factors, macroeconomic environment and more measures of dividend policy would perhaps have led to different outcomes in the analysis.

On data, the limitation of the study was that the study relied on the data drawn from the financial statements. The reality is that there is a lot of restatement of financial statements of the previous financial years in the subsequent financial years. Therefore, this is likely to have affected the accuracy of data points.

About time aspect, the study period did not take into account the effect of post-election violence of 2007 / 2008 that had a great effect on the performance of capital market in Kenya even in subsequent years. Inclusion of such period and introduction of structural break in the analysis would perhaps lead to different results.

Regarding the variable operationalization, the study used one measure for every variable. Within the study dividend pay – out ratio and dividend yield were the two core measures of dividend policy applied. Inclusion of such multiple measures would be core for robustness check. The same limitations apply to control variables of the model.

Regarding the model, the study assumed a linear empirical model in estimating the random effects model. The study adopted the model that assumes that the dependent variable and the independent variables are linearly related with the error term being normally distributed. However, this overlooked the fact that linear dependence between the dependent variable and the independent variable is not always guaranteed.

5.5 Areas for further studies.

Given that the study failed to take into account the companies listed in GEMs, there is a need future studies to conduct a cross industry analysis for comparison purposes. By this, there is the need for the future study to conduct similar studies taking into account the MSMEs listed under the GEMs. Such studies would offer conclusive findings, which can be generalized for the entire insurance industry. On data, the limitation further studies in this area should consider taking keen in the data enumeration to ensure that they try as much as possible to capture the restated data only for the analysis.

Regarding the time period for the study, the future studies can include the effect of post-election violence of 2007 / 2008 that had a great effect on the performance of stock market even in subsequent years. This can be introduced in the analysis as a time dummy with the model being estimated with the structural breaks. Inclusion of such analysis would perhaps have led to different results in so far as bad periods or events.

Regarding the variable operationalization, future studies could consider using more than one measures of the model variables for robustness check. Future studies should take into account other measures of dividend policy such as Dividend per Share and Earnings per Share in their analysis. In addition, future studies in this area can explore extending the empirical model to account for macroeconomic environment such as GDP growth, inflation rate and changes in risk free market interest rates such as interest rate in government short term securities. Such studies would offer more insights that this study was unable to offer.

Regarding the model, the study assumed a linear empirical model. Future studies can take into consideration testing for linear dependence in between dependent and independent variable upon which the selection of the model would be informed. Presence of non – linearity would inform the adoption of appropriate non – linear models that would be more realistic.

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APPENDICES

Appendix 1: Data collection template

Year	Company Name	Market segment code	Company Code	DPR	DY	LEV	Lnsize	Lnvalue
2009								
2010								
2011								
2012								
2013								
2014								
2015								
2016								
2017								
2018								

Appendix 2: List of listed companies used in the analysis

1	Eaagads Ltd Ord	20	NBK	38	Longhorn Publishers
2	Kapchorua Tea Co. Ltd	21	NIC bank	39	Athi River Mining
3	Kakuzi	22	Standard Chartered bank	40	Bamburi cement
4	Limuru Tea	23	Equity bank	41	Crown Berge
5	Sasini Ltd	24	Cooperative bank	42	EA cable
6	Williamson Tea	25	Express Ltd	43	Portland Cement
7	Car and General	26	Sameer Africa	44	Total
8	Barclays bank	27	Kenya Airways	45	Kengen
9	Stanbic bank	28	National Media Group	46	KPLC
10	I&M bank	29	Scan Group	47	Jubilee insurance
11	Diamond Trust Bank	30	TPS	48	Kenya Re
12	HFCK bank	31	Standard Group	49	Liberty
13	KCB bank	32	Uchumi	50	Britam
14	Centum	33	Unga Ltd	51	CIC Insurance
15	BOC	34	Kenya Orchards	52	Olympia
16	British American Tobacco	35	Safaricom	53	Trans-Century Ltd
17	Carbacid ltd	36	Eveready East Africa	54	Kenol Kobil
18	EABL	37	Flame Tree Group	55	Pan Africa Insurance
19	Mumias				