THE RELATIONSHIP BETWEEN FIRM-SPECIFIC FACTORS AND DIVIDEND PAYOUT FOR FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE

BY

KIGUHI JAMES SAANI

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION (MBA), UNIVERSITY OF NAIROBI

NOVEMBER 2020

DECLARATION

This research project is my original work and it has not been presented and submitted to any university or college for examination.
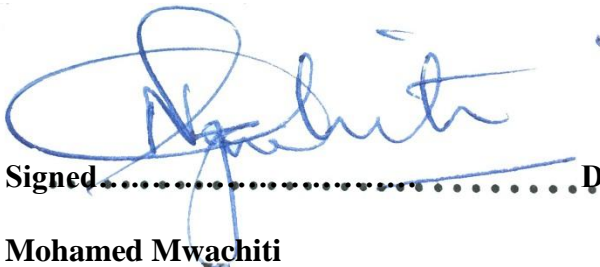
Signed……………………………

Date……7/12/2020……………………

James Saani Kiguhi

D61/9822/2018

This research project has been submitted for examination with the authority and approval as the university supervisor.

Signed…………………………………………

Date……7/12/2020……………………

Mohamed Mwachiti

Lecturer, Department of Finance and Accounting

School of Business, University of Nairobi

ACKNOWLEDGEMENT

I would like to first thank the Almighty God without whom everything is not possible. I appreciate my supervisor Mr. Mohammed Mwachiti for his exceptional support and guidance during the entire research process. To my work colleagues who encouraged me and stood by me during the research period, I am really grateful. I also extend my gratitude to my parents who have always supported me in my endeavors and encouraged me to aim higher. My gratitude also goes to my dear wife Diana for her support and encouragement during the entire research project. Lastly to my lovely children who provide me with the inspiration.

DEDICATION

I dedicate this research project to my family and friends. To my loving parents whose words of encouragement and push for persistence to excel encouraged me to aim higher. Lastly to my wife Diana for all your support and encouragement.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABREVIATIONS AND ACRYNONYMS

NSE – Nairobi Securities Exchange

CMA – Capital Markets Authority

ABSTRACT

Organizations have different dividend payout policies unique to certain factors or conditions within and without the organization. Various studies have shown that certain factors such as firm size, profitability, liquidity and prior dividends positively influence the dividend payout. On the other hand, factors such as liquidity, financial leverage, sales growth and business risk have a negative effect on dividend payout. The objective of this research was to examine the influence of select firm-specific factors on the dividend payout ratio decisions of companies listed on the Nairobi Securities Exchange. It also aimed at reviewing the increasing body of theoretical and empirical studies that have endeavored to examine the range of magnitude and effects of the firm specific factors on the dividend payout. The target population was all the listed firms at the Nairobi Securities Exchange. Secondary sources of data were employed. Panel data was utilized, data was collected for several units of analysis over varying time periods. The research employed inferential statistics, which included correlation analysis and panel multiple linear regression equation with the technique of estimation being Ordinary Least Squares (OLS) so as to establish the relationship of the firm specific factors and dividend payout. The findings were that the firm-specific factors do not have a statistically significant relationship with dividend payout and they cannot be utilized to significantly predict dividend payout. Further findings were that profitability, leverage, and growth neither have a statistically significant relationship nor association with dividend payout. Policy recommendations are made to the CMA and NSE, and by extension, the National Treasury, not to focus on firm-specific factors when endeavoring to formulate and enforce rules and regulations on dividend payout. Further recommendations were made to firm management and consultants not to focus on firm specific factors when trying to signal investors in order to boost firm value. Final recommendations were made to other stakeholders like investment banks, equity analysts, and individual investors not to solely analyze the firm-specific factors when trying to forecast dividends, which are a major component in calculating returns.

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

Organizations have different dividend payout policies unique to certain factors or conditions within and without the organization. Various studies have shown that certain factors such as firm size, profitability, liquidity and prior dividends positively influence the dividend payout. On the other hand, factors such as liquidity, financial leverage, sales growth and business risk have a negative effect on dividend payout (Jensen & Johnson, 1995; Myers & Majluf, 1994; Al-Kuwari, 2009; Fitri, Hosen, & Muhari, 2016).

With an end goal to clarify how much will be paid out as dividend and how much will be held as retained income for the organization, various clashing theories arose. Among them is the dividend irrelevance hypothesis by Miller & Modigliani (1961) which stated that under states of a completely perfect market, dividend decisions do not influence the estimation of the value of the company or the stock cost of the company. A company's worth can be expanded just if the organization puts its retained income into ventures that yield better return. As such, financial specialists are more intrigued by the venture approach as opposed to the dividend arrangement. The Miller and Modigliani dividend irrelevance theory has been challenged by other different researchers and analysts who accept that ideal market does not exist and that different genuine elements impact the company's dividend payout strategy. The bird in hand hypothesis by Lintner (1962) states that investors are more and more sure about receipt and conveyance of dividends instead of capital appreciation. Signalling theory states that dividend payout by an

organization gives a solid sign about positive future prospects of the organization and along these lines, investors favor dividends to capital gains (Ross, 1977).

In Kenya, firms pay lower dividends so as to retain much of the needed internal funds to finance investment (Glen, Karmokolias, Miller, & Shah, 1995). Other factors that affect dividend payout are; profitability, liquidity, firm size, inflation, industry factors, among others. In helping investors and other players in the financial security market make informed decisions, the Nairobi Securities Exchange (NSE) facilitates trading of securities and regulating trading activities.

1.1.1 Firm-Specific Factors

One of the significant factors that have been greatly investigated in the empirical literature is finding the factors affecting the firm's dividend policy. Dividend policy is influenced by not only the internal factors but also the external factors (Lintner, 1956; Jensen & Smith, 1984; Jensen & Johnson, 1995). Some of the internal factors which afect divend policy comprise of liquidity, profitability, investment opportunities and many others. On the contrast the external factors includes macroeconomic variables such as growth, economic stability, technological change, customer preferences amongst others (Roberto, 2002).

Profitability of an organization is reflected in the net profit or earnings that remain after all total costs, expenses and tax have been deducted from the total revenue. Adjirackor et al (2017) defined profitabilty as an investment's or firm's ability to produce a return from

its use. Profitability is one of the most important indicators of the potential of a firm to pay dividends. A highly profitable organization has the ability to pay high dividends in comparison to a company with low profits or a company incurring losses which will implement a conservative dividend policy (Badu, 2013). Some studies have shown that profitability is positively and significantly related to dividend payout (Odawo & Ntoiti, 2015). Njuguna & Jagongo (2015) in a study of factors considered in dividend payout decisions of firms listed on the NSE concluded profitability as the main factor determining dividend payout across different firms and industries. Profitability is measured as a ratio of return over equity.

Financial leverage denotes the utilization of debt in the capital structure of the organization. It is measured by Debt to Equity ratio. Firms with high leverage are the ones considered to have a higher debt to equity ratio. Debt financing instead of equity increases not only the obligations of the company to creditors but also the financial risk. Thus, a firm with high level of debt will restrict payment of dividends and thus investors wishing to get high dividends should avoid investing in companies with high financial leverage (Komrattanapanya, 2013). Aivazian, Booth, & Cleary (2003) and Rozeff (1982) have found high debt ratios relate to lower dividend. However, some other studies have shown positive association amongst financial leverage and dividend payout ratio at 10% level of significance (Kapoor, Anil, & Misra, 2010). This is because the studied firms showed low levels of debt and high liquidity such that an increment in debt in proper proportion of the capital structure did seriously impact the capacity of the firms to pay dividends. In line with agency theory, firms can reduce agency costs through debt

3

financing thereby increasing profitability. Some firms with high debt levels pay more dividends as shown in a study of Ghanain banks (Marfo-Yiadom & Agyei, 2011).

Sales growth is another factor that has been found to affect dividend payout ratio. Sales growth is the increase in a firm's sales or revenue earning capacity over time measured as change in total sales of the company in between current period and previous period over sales in the previous period (Deitiana et al., 2015). A rise in the level of sales is a positive indicator in expansion of the firm's operations. A high growth firm needs a huge amount of funding to finance new arising projects. Such firms will therefore tend to retain a huge amount of their internal funds and limit dividend payments so as to retain more funds for investment. This is because externally borrowed funds are costly due to payment of fixed charges like interest and the principal amount (Rozeff, 1982). Another study by Marfo-Yiadom & Agyei (2011) revealed negative association amongst sales growth and dividend payout as Ghana's high growth banks used their retained earnings to finance projects. Contrastingly, other studies have found that higher sales growth lead to higher profits and hence higher dividend distribution (Kania & Bacon, 2005).

1.1.2 Dividend Payout

The principle focal point of dividend payout choices is on the appropriation of a substance of profits in general or some portion of it to investors. The portion of profit which is conveyed to equity holders is known as dividends while the other part is income held for investment. Settling on choice about the amount and systems of paying out dividend is viewed as dividend policy (Hasan, Ahmad, Rafiq, and Rehman, 2015). The

dividend policy of an organization is reflected in its profit payout proportion otherwise called dividend payout ratio. The payout proportion shows the extent of distribution between profits and held income from net profit. Lintner (1956) established that firms normally think in aspect of the earnings that are expected to be paid. When establishing the dividend per share, firms usually have target payout ratio in mind. Bhat & Pandey (1994) also opined that managers are strongly in favor of companies paying regular dividends and striving to move towards a target payout. The major types of dividend payout policies include; constant payout ratio which means a fixed proportion of the net earning is paid every year, constant dividend per share or dividend rate is a policy where firms announce dividend as a percentage of paid-up capital per share, constant dividend per share plus extra dividend policy which is applicable to firms with varying earnings that pay extra dividend in periods of prosperity. The final policy is the residual dividend policy payout; this policy is where firms pay out dividend out of amount that is left after all investments are made. Where there is no profit that remain after doing investment then no dividend is paid in that period (Pandey, 2005).

Dividend payout ratio plays an important role in establishing the firm value and assessing shareholders' equity of the firm. It also appears as shown by the signaling theory that dividend payment over time has a positive association with future earnings growth. Investors target at procuring an income as dividends and capital increases. Thus, investors expect additional capital or a share of profit in the form of dividends each year to improve their welfare (Fitri, Hosen, & Muhari, 2016). According to Mutindi et al, (2018) the returns of a shareholder are composed of two components namely capital gain

and dividend which are both influenced by dividend payout ratio. Earnings growth rate is stimulated by a low payout policy thus increasing the share price. On the other hand, a high payout policy results in less retained earnings which decreases the market price per share and eventually resulting to slow growth rate. It is shown in the dividend payout ratio the percentage of profit that a company retains and the percentage that it distributes to shareholders in terms of dividend (Lintner, 1956). Dividend Payout is the ratio of annual dividend per share to earnings per share of the organization (Hellström & Inagambaev, 2012). It can also be expressed as the proportion of total dividends paid out to ordinary shareholders to the net income.

1.1.3 Firm-Specific Factors and Dividend Payout

Profitability is a key indicator of the firm's earning ability. Okwo, Enekwe, & Ugwunta (2012) define profitability as the ability to make profit from all the business activities of the company. Profitability is an indicator of the efficiency of the management in utilizing the company's resources to generate profit. Dividend payout decisions is influenced by the firm's profitability though the pecking order theory has a different view. The pecking order theory contends that firms have an inclination to fund positive NPV projects using retained earnings thereby retaining more profits and minimizing the payout amount (Myers & Majluf, 1984). However, some other studies have revealed that firms with consistent earnings usually end up paying more dividends. Alzomaia & Al Kadhiri (2013) found that companies are willing to pay a high amount of dividend if the company's profitability increase. Aivazian, Booth, & Cleary (2003) undertook a study on how profitability is related to dividend payout ratio and revealed that both in the US and emerging markets, profitability determines the firms dividend payout. Different methods

6

have been used to measure profitabilty. Al-Kuwari (2009 used Return on Equity (ROE) as the most appropriate measure of profitabilty since it demonstartes the firms potential to internally generate cash. While Amidu & Abor (2006) adopted the Earnings Before Interest and Tax (EBIT) to Total assets in measuring profit. Hellström & Inagambaev (2012) assert that using EBIT/Total assets is disadvantageous due to the fact that it varies significantly between firms with large investment in Property, plant and equipment than industries with low level of investment in plant, property and equipment. They however used the ROE since it is not highly affected by the industry factors such as the level of capital investment.

The use of debt in the capital structure of a firm is called financial leverage. It is measured using debt to equity ratio. Financial leverage involves buying a company's assets using borrowed funds and forms part of the capital structure decisions. In making Capital structure decisions a company's managers have to choose the optimal level of debt and equity to use in the business. Whereas funds raised through borrowing are important in financing investment to improve returns they also pose the threat of financial distress where a firm is unable to pay both interest and principal amount to debt-holders (Pandey, 2005). Companies have an obligation to first meet their debt obligations before distributing dividends. Highly leveraged firms avoid paying more dividend so as to reserve their cash (Rozeff, 1982). Jensen (1986) also observed that low dividends are anticipated from highly leveraged firms. Highly leveraged firms reserve their earnings internally to service their debt as opposed to paying dividend to equity holders. On the contrary, Kapoor, Anil, & Misra (2010) found a positive relationship between dividend

payout ratio and related long term solvency at 10% level of significance. Another study on dividend policy of sixteen banks in Ghana revealed that there was a positive association of dividend payout and bank's debt (Marfo-Yiadom & Agyei, 2011). Most of the studies show financial leverage does not signficantly affect dividend payout policy (Kim & Gu, 2009; Al-Malkawi, 2007; Gill et al, 2010).

Increase in level of sales consistently indicates the potential of a firm expanding its cash earning capacity in the future. A high growth business therefore needs huge sums of capital to invest in its projects while a lower growth firm has more willingness to allocate its earnings to shareholders as dividends. Fama & French (2001) revealed that companies having better investment and growth opportunities usually have a lower dividend payout. This concurs with Rozeff (1982) findings which contend that a firm experiencing growth retains its earnings and minimizes dividend payout to avoid using high cost external funds. Other studies have also found the same result where growth opportunities of the firm have a negative relationship to dividend payment (Amidu & Abor, 2006) and (Alzomaia & Al Kadhiri, 2013). Some studies have however shown a positve relationship between sales growth and dividend payout. When companies have high sales growth they are likely to have higher profits from which they can distribute dividends to shareholders (Kania & Bacon, 2005).

Different studies have used different approaches to measure sales growth. Some studies have applied predicted sale growth rate to measure growth (Rozeff, 1982). Hellström & Inagambaev (2012) and Komrattanapanya (2013) used sales growth from previous. This

study will use the growth from previous year since it is based on actual data and not predicted sales which may not be accurate.

These studies underscore the importance of dividend payout policy in helping managers in deciding how much to pay out as dividends to shareholders and how much to hold as retained earnings (Baker & Powell, 1999). Dividend payout is one of the broadly investigated themes that has picked up the attention of scientists, investors, associations, financial specialists, analysts and different organizations. In any case, it stays as one of the most contentious issues in the field of financial management (Grullon, Michaely, & Swaminathan, 2002). Brealey et al (2002) recognized dividend policy to be among the top ten corporate finance issues which requires more research to build its understanding. While Brigham & Gapenski (1996) considers dividend policy as the most judgmental decisions that a manager or director must make.

1.1.4 Listed Companies on the Nairobi Securities Exchange

NSE is a body corporate established in the Companies Act (CAP 486) of the Kenyan law and comprises of all licensed stockbrokers. The NSE was privatized in 1988 when government of Kenya sold 20% of its holdings. The NSE market is structured in a way that its operations are carried out through Central Depository & Settlement Corporation. CMA of Kenya is the main regulator of all firms listed where the regulator ensures compliance of the listed companies (NSE, 2018).

The NSE plays an important role in raising capital for businesses, creating investment opportunities as it allows small investors to purchase shares without huge initial capital outlays. The NSE also ensures that the capital market is working efficiently and that it is transparent to promote the interests of stakeholders. In doing so, it enables an environment in which investors are able to operate profitably and be able to raise both debt and equity capital to finance their operations. The NSE regulations also monitor the conduct of members with regards to listing of entities, payment of dividends and trading of securities. In addition, companies operating on the NSE are expected to disclose company information to the general public. This exposes the listed companies to scrutiny hence they need to adopt regular and stable dividend policies (Odinya & Barasa, 2018).

The CMA provides approvals for listing of public offers as well as listing of securities in any securities exchange in Kenya after certifying certain considerations for listing including corporate governance considerations. Currently there are 65 firms from various sectors of the economy listed on the Nairobi Securities Exchange.

1.2 Research Problem

Dividend payout policy plays an important role in any organization. A number of studies prove that dividend payout is influenced by various factors. However, up to date no agreement has been reached on the factors which affects a business' dividend payout policy. Masry, Sakr, & Amer (2018) have noted that dividend payout out policy is a complicated problem to emerging capital markets. Fitri, Hosen, & Muhari (2016) gave suggestion stating that further research needed to be done on dividend policy in emerging

capital markets as financial reforms continue to emerge. Inspite of the various studies on dividend policy it continues to be among the most contentious issues in finance. Previously a number of studies have been conducted on dividend policy and found that dividend policy differs over time, between firms and even countries (Glen, Karmokolias, Miller, & Shah, 1995). In a study done by Hellström & Inagambaev (2012) on dividend payout ratios of Swedish firms, they found that in the financial crisis of the late 2000s, the four major banks in Sweden applied different dividend payout policies. Some chose to pay dividends while others chose not to pay. Hence, there is continuous debate and study on dividend policy in an effort to determine dependable evidence on factors affecting dividend payout as well as building consensus with regards to dividend payout in developing and developed countries.

Many studies have been done in an attempt to answer the question of what factors influence dividend payout policy, but this has remained elusive. Miller & Modigliani (1961) postulated that dividend was irrelevant in determining the value of the firm. They made certain assumptions of a perfect market, constant investment policy, no taxation and uncertaintiy in future returns. These assertions were discounted by other researchers in the field of finance. Gordon (1963) revealed that dividends have higher influence on the share price. A similar conclusion was reached by (Fisher, 1961). Rozeff (1982) found that dividends were important in reducing agency costs. This explains why shareholders may prefer firms to pay dividends than retaining earnings. Labhane & Ramesh (2015) in a study of determinants of Dividend payout ratios in India found that firms with high profitabity, high free cashflow, and larger firms had high dividend payout ratios while

11

firms with high investment opportunity, high business risk and high financial leverage had lower dividend payout ratios consistent with pecking order theory and signalling theory. Jensen (1986), found that free cashflows as a major determinant of dividend payout since shareholders opt for payments in cash in the form of dividends than keeping this cash in the business to reduce agency costs. The studies reviewed have concluded that different dividend determinants may lead to different results across different time periods.

In Kenya many studies have been undertaken aiming on establishing determinants of dividend payout for firms listed on the NSE. Ndungu (2009) undertook a study to establish what determined the dividend policy for fifty five firms listed at the NSE using a multiple regession analysis for a period 2004 to 2018. The study indentified factors such as liquidity, growth, size and profitability affected the dividend payout ratio. Karani (2015) undertook a study on the determinants of dividend policy of commercial banks in Kenya and found strong positive association amogst profitability and dividend payout ratio, liquidity and payout ratio, size and dividend payout ratio. Another study revealed that for publicly listed companies at the NSE, dividend payout was significantly affected by earning (Bulla, 2013). Kinyua (2013) attempted to determine the association between the volatility of earnings and the dividends paid by companies in the NSE index. The study revealed that no significant association was found to exist amongst dividend payouts and earnings volatility. Mbuki (2010) established that the dividend payment ratio was influenced by multiple factors, along with the availability of investment

opportunities, the availability of cash to pay dividends and the potential sustainability of dividends.

Even though attempts have been made to examine factors determining if dividends are paid or not, the study of the relationship has not been extensive in developing countries like Kenya, and the few available studies arrive at contrasting conclusions. This forms the foundation for the planned research. This paper sought to provide additional insight into dividend payout debate by examining a developing economy such as Kenya. It attempted to give an explanation to the research question: What is the relationship between selected factors and dividend payout ratio of companies in Kenya?

1.3 Research Objective

The objective of this research was to examine the influence of select firm-specific factors on the dividend payout ratio decisions of companies listed on the Nairobi Securities Exchange.

1.4 Value of the Study

First, the result of this research will add into the literature on dividend policy by examining the firm's decision on dividend payout. In addition, this study will strengthen the finance literature by considering the covered dependent variable, that is dividend payout ratio, and by applying a random effect Tobit regression model. More so, the study findings will broaden the current financial management knowledge by enlarging the

scope of analysis in comparison to the prior studies that evaluated the various determinants of dividend payout policy and their impact.

Secondly, the government through relevant regulatory agencies and the policy makers will benefit from the study findings as they will assist them in coming up with guidelines as well as polices on dividend payment that are of the best practices and this will go far towards protecting and encouraging investments thereby stimulating the national market.

Finally, the proposed research intents will enable investors appreciate the value of investing in locally owned firms. The aim of investors is putting their capital in firms that are stable, with better Returns on Assets, Return on Capital and Return on Equity. The study will also help investors in to choose and form an investment portfolio founded on their preference on dividend payout.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter is organized into five sections. The first section on theoretical review will focus on the various theories backing dividend payout, the second section offers an examination of factors that influence the dividend payout ratio while the third section gives an extensive review of empirical studies on dividend payout determinants both global and local. The fourth section provides a summary of the literature while the last section lays out the conceptual framework.

2.2 Theoretical Review/Framework

Dividend decision is among the most critical aspects of a company's financial policy and is not an individual decision. Instead, a decision is made after the different aspects and considerations are examined. It is therefore no surprise that this area has attracted both researchers, practitioner and students in trying to understand dividend policy of firms.

There are a number of theories that have been pioneered aimed on explaining the dividend concept. According to the theories, dividend is considered to be either a financial decision that is relevant or irrelevant. The theories to be covered in this study comprise of; the bird-in-hand theory; the clientele effect theory and the Modigliani and Miller dividend irrelevance theory.

2.2.1 The Miller and Modigliani Dividend Irrelevance Theory

Modigliani and Miller (1958) argue in their irrelevance theory that dividend policy has no effect on the value of firms. As indicated by Modigliani and Miller (1958), companies' dividend polices have no effect on their financing and investment decisions. To investors dividend policy is not relevant. Under assumptions of a perfect market dividend policy does not affect the stock's price or cost of capital. Shareholders' wealth is instead affected by the investments that a firm makes and the income that is distributed to investors. They argue that the value of the firm is affected by future earnings and not dividends. Miller and Modigliani (1961) suggest that dividend clients can emerge on the basis of the investors' characteristics. They contend that those investors who do not prefer dividend income would likely invest in firms that pay less dividends. Therefore, there is an anticipated relationship between the shareholder dividend preference and the dividend policy of a firm

.

Lintner (1956) and Modgiliani and Miller (1961) additionally notes that dividends carries information. Managers possess information pertaining the profitability and future cashflows of their firms. It is with this information that they use to establish which dividend policy to adopt. Therefore, dividends signals information to investors pertaining the firms future earnings and thereby stock prices are affected by payment of dividends. As indicated by Bhattacharya (1979), the information asymmetry existing between shareholders and managers is reduced by dividend policy. Announcements of dividend triggers information to shareholders pertaining firm's profitability and future cash flows. Baker & Powell (1999) in a survey of 603 Chief Finance Officers (CFOs) of firms listed

on the New York Stock Exchange (NYSE) in the United States of America found that 90% of the respondents held that firm value is affected by dividend policy contrary to Miller and Modigliani's assumptions.

In analysis of the dividend irrelevance theory, investment policy is the main determinant of a firms value and not dividend policy. It can therefore be concluded that if a firm invests in postive net present value projects cashflows will increase thus the value of the firm and of the stock price. Dividend becomes a residue of the earnings obtained from investments (Al-Malkawi, Rafferty, & Pillai, 2010).

2.2.2 The Bird-in-the Hand Hypothesis

Gordon (1963), argues that the dividend policy is relevant to the firm's value, but dividend payments reduce uncertainty and thus increasing the value of the share. Certain current dividend is appropriate than an anticipated dividend in future (capital gain) despite the possibility of higher future returns. Consequently, companies that pay high dividends will pay stakeholders that prefer high current payouts at a lower rate of return than firms that pay low dividends payout. A lower expected return results in a higher stock price for firms following the high current dividend trend preferred by bird-in-the-hand investors.

This theory is founded on the assumption that when there is high volatility, investors are inclined to discount capital gains at a higher rate as compared to when they discount near

17

dividends. Investors that act rationally are risk-averse and favor near-dividends over future dividends (Pandey, Financial Management, 2005).

Bhattacharya, (1979) dismisses bird in hand theory as a fallacy noting that firms risk impacts dividend level and it is not dividend that affects the firm's risk.

2.2.4 Clientele Effect Hypothesis

Miller & Modigliani (1961) the seminal paper points out that, under some circumstances, preexisting clientele hypothesis may impact the dividend policy. They figured out that certain market imperfections for instance transaction costs and tax differentials may affect individual choices made by certain investors so as to choose different blends of capital gains and dividends. Therefore, as a consequence of such business imperfections, customers may be drawn to some forms of dividend paid stocks, but each clientele is as good as another in a perfect market, so dividend policy does not impact the firm's value.

Since MM assumes that there are no taxes, it is far from true. In fact, investors tend to pay taxes on dividend income and capital gains and incur costs when they trade securities. Taxes and transaction costs will build investor clients dependent on these particular investor conditions, such as customers induced by tax minimization and customers induced by the transaction costs. Pandey (2005) notes that tax differential attract tax clientelles such that investors in high-tax brackets own low-payout share while those in low-tax bracket own high-payout shares. In general tax differential favor low-payout clientelle.

Allen, Bernardo, & Welch (2000) opines that corporate investors prefer to be drawn to stock paying dividends since they have significant tax incentives in comparison with individual investors. These institutions may have charters which prevent investing in unpaying or low-dividend stocks (Short, Zhang, & Keasey, 2002). Pettit (1977) in his study on clientele effect suggested that some investors for instance retirees, poor, old and income-orientated investors who depend on dividend income for their consumption are more attracted to stocks that are more stable and pay dividends. However, wealthier investors, that do not depend on their share portfolio to meet their liquidity requirements, have a preference of low dividend payout so as to evade the transactional costs related with reinvestment of dividend income which they do not require for their present consumption (Bishop et al 2000).

2.3 Firm-Specific Factors

The following section discusses the selected firm -specific factors used to determine their association with dividend payout ratio.

2.3.1 Profitability

Profitability is one of the main considerations in the financial report of a business and also one of the most significant determinants of the dividend policy (Amidu & Abor, 2006). The pecking order theory, which describes how firms assign preference to their sources of financing, says that companies tend to use internal funds. After utilizing internal funds and it can no longer be adequate to satisfy its financial demands, firms turn to debt and eventually equity (Myers, 1984, Myers & Majluf, 1994). Myers (1984)

indicates that this behavior could be attributed to the cost of issuing new equity. The theory assumes that the association amongst profitability and leverage is negative. Firms with greater profitability produce sufficient earnings and are more likely to have retained earnings.

As far as the pecking order theory is concerned, companies with higher profitability, using retained earnings as their capital source, will pay fewer dividends. In empirical study, Kester (1986) found a negative association between leverage and profitability in the US and Japan. Alzomaia & Al Kadhiri (2013) found that companies are willing to pay a high amount of dividend if the company's profitability increases. Aivazian, Booth, & Cleary (2003) did a study on the correlation between profitability and dividend payout and revealed that in both developing and US markets dividend payout can be used to explain profitability.

Many researchers found a strong association between profitability and dividend payout, but several different metrics of profit were used. The EBIT / Total Assets ratios were used by Gill et al (2010) and Amidu and Abor (2006) used EBIT / Total Assets ratios in measuring profit. Al-Kuwari (2009) among other studies used ROE as the best indicator of business profit as it shows the internal potential to generate cash.

The demerits of using EBIT to Total Assets is that the calculation differs from industry to industry. A case is in industries with large investments in property, plant and equipment

where EBIT/Total Assets are normally low. The reverse applies to companies with low investment in property, plant and equipment.

2.3.2 Financial Leverage

The financial leverage refers to the debt level of the Company's balance sheet compared to the asset level. Jensen (1986), in free cash flow theory alludes to the fact that when controlling the agency problem of free cash flow, dividends and debts are substitutes. Because the high debt level minimizes free cash flow that managers can use at the cost of shareholders for their own purposes, the managers can be managed with this high debt level. Furthermore, firms that are highly leveraged pay smaller dividends due to the higher external financing costs and default risk. Rozeff (1982) contends that high debt raises the company's operating costs and risk. Companies with high leverage ratio pay for external funding have high fixed costs. Henceforth, as the leverage ratio goes high, the minimal the chance to pay dividends. Consequently, an inverse relationship exists amongst dividends payout and financial leverage. The agency's theory of dividend policy backs this assumption.

Debt ratio is the commonly used measurement of financial leverage and is calculated as total debt/ total assets. The debt ratio provides a broader perspective of firm's liabilities; though, the proportion of the debt to equity is not straightforward (Aivazian, Booth & Cleary 2003).

2.3.3 Sales Growth

A number of studies have shown that a negative association exists amongst the growth rate of a company and the dividends payout ratio (Rozeff, 1982), (Lloyd, Jahera & Page, 1985), and (Holder, Langrehr, & Hexter, 1998). This is because a firm with high growth needs greater amounts of financing so as to invest in projects. "Growing companies have to finance parts of the bigger investments by retained earnings. If firms have to keep the same dividend payout levels they ought to raise their external financing that is comparatively expensive. Therefore firms decide to decrease their dividend payouts so as to use the internal funds for investment in growth opportunities" (Gill et al, 2010 and Rozeff, 1982). Marfo-Yiadom & Agyei (2011) showed a negative relationship between sales growth and dividend payout out among Ghana's banks with high growth rates that utilized their retained earnings to expand projects.

Contrastingly, Kania & Bacon (2005) established the association between dividend payouts and sales growth is positive. This is because firms with higher sales growth experience higher profits growth hence would distribute higher dividends to shareholders. On the other hand, a few studies have showed insignificant association amongst sales growth and dividend payment (Anil & Kapoor, 2008; Kim & Gu, 2009 and Al-Kuwari, 2009).

2.4 Review of Empirical Studies

Rozeff (1982) in a study regarding dividend determinants in the U.S.A sampled 1000 firms from 64 different industries from a value line investment survey in 1981.

Correlation of various firms' factors and dividend payout ratio was tested. The study found a negative association amongst business riskiness and dividend payout ratio, investment opportunities and dividend payout ratio, sales growth and dividend payout, financial leverage, and dividend payout ratio.

Juma'h & Pacheco (2008) conducted a investigation on factors affecting cash dividend sampling some manufacturing firms in US. Expansion and investment, liquidity ratios, company risk, profitability ratios and company size were the variable used. A regression model was applied to test the association amongst the factor and dividends and confirmed that liquidity, profitability, risk and company size as significant determinants of cash dividend decision.

Fitri, Hosen, & Muhari (2016) conducted a study on 30 firms listed at Jakarta Islamic Index within the study period 2004 and 2014. In selection of the sample, puporsive sampling method was used based on criteria for samples designed for the study. Seconday data from financial statements for the period of study were used in the study. Panel data regression was applied to the study to test the association amongst dividend payout ratio and factors affecting dividend payout ratio. They revealed a positive associaton amongst previous year's dividend on current dividends payout ratio. Profitability had positive association with dividend payout ratio. Asset growth on the contrast had negative and significant effect on dividend payout ratio.

Suntraruk (2014) in a study of factors influencing dividend payout, used a sample of all firms listed on the Thailand Stock Exchange exluding firms with incomplete data. In order to minimize the industry effect Suntraruk categorized the data into 8 industries. A tobit regression model was applied in analyzing data to test the relationship between factors influencing dividend payout. The findings were that firm's leverage, investment opportunity and sales growth are inversely impacted by dividend payout. Firm size and profitability were positively related with dividend payout. Additionaly, the study found out that property and construction industry is positively associated to dividend payout. This study will be replicated to study all the firms from different sectors listed on the Nairobi Securities Exchange.

Jóźwiaka (2015) conducted a study on dividend policy determinants of Polish non-financial firms quoted on the Warsaw Stock Exchange for the period covering 2000 to 2012. The study empolyed panel data model to test hypotheses regarding the association amongst dividend payout ratio and determinants of dividend policy.The results showed that firms profitability measured by ROE negatively and significantly affect divident payout ratio.This revealed that profitable Polish companies listed on Warsaw Stock Exchange use retained earnings as capital sources and are less likely to pay dividends. This concur with the pecking order theory that management prefer internally generated funds rather than external debt to finance operations (Myers & Majluf, 1984). However, this finding is inconsistent with the findings of Fitri, Hosen, & Muhari (2016); Al-Kuwari (2009) and (Amidu & Abor, 2006) which found positive association amongst profitability and dividend payout ratio.

A lot of literature on dividends is available in developed and other foreign developing countries. This study will seek to add to the literature available in Kenya. Tiriongo (2004) carried out an investigation on dividend policy practices in firms quoted at the Nairobi Stock Exchange. He examined the impact of liquidity, firm size, legal and legulatory constraints, leverage, restriction in debt contracts, growth prospects, profitability, stability of earnings, control and ownership structure on dividend behaviour of corporate firms listed at the Nairobi Stock Exchange from 1993 to 2002. A sample of 49 companies was used for the study. Multiple regression model was used to analyse the independent variables and test their significance to the level of dividends. Scatter graph analyses were used to explain the dividends behaviour in relation to the predictor variables. The results of the study showed profitability and leverage to be the most significant factors affecting dividend in the agricultural sector. Financial sector was mainly affected by stability of earnings, firm size and expected growth rate. This shows that industry differences ought to have an influence on dividend policy decisions consistent with studies by (Suntraruk, 2014; Anil & Kapoor, 2008; and Gill, Biger, & Tibrewala, 2010). This study will validate the findings of Tiriongo by using the Tobit regression model.

King'wara (2015) did a study on the dividend payout ratio determinants in Kenya for the period 2008 – 2012. His sample included 30 firms listed on the NSE that were non-financial, non-utility and had continuosly paid dividends within the period under study. Six variables were considered in investigating their effect of dividend payout ratio through use of multiple regression analysis. The variables comprised of; firm size represnted by natural logarithm of total assets, debt ratio, growth opportunities measured

by variation in sales per year, leverage mesured by debt to asset ratio, market to book ratio and market capitalization. Dividend payout ratio was the dependent variable. Tobit regression was used for the analysis and revealed that negative dividend payout ratios. The Tobit regression results were presented in tables for analyis of the six variables association with the dependent variable dividend payout ratio. The results revealed negative significant association amongst growth rate and dividend payout ratio. An insignificant negative associaton was shown amongst leverage and dividend payout ratio. There was a positive association amongst earnings and dividend payout ratio. Size had an insignificant negative association with dividend payout ratio.

The study by King'wara (2015) consisted of only six factors that determine dividend payout ratios of non-financial and non-utility sector firms. This study will include other factors not included included in the study by King'wara such as business risk, industry differences, interactive factors and liquidity. This study will also include all firms listed on the NSE from all sectors which was a limitation of the study by (King'wara, 2015).

Another study by Kathuo & Kimoro (2017) on determinants of dividend policy decisions of 11 listed banks in Kenya over the five year period 2011-2015. The study focussed on factors determining dividend policy specifically; profitability, cashflows and bank size. The study used correlational research design which involves assessment of relationships among variables by utilizing secondary data collected from annual financial returns of 11 banks listed on the NSE. Data was analysed using Statistical Package for Social Sciences (SPSS). A review of the regression coefficients obtained revealed that profitability and

cashflows have a positive and significant association with dividend policy decision. Bank size was found to have no significant influence on dividend policy. The study was limited to only banks and only three factors affecting dividend policy considered for the study. This limitation can be cured by looking at all firms listed on the NSE and analysing more factors that affect dividend payment. This will enable in making inferences about a great number of factors affecting dividend policy of different firms in different sectors. This is what this study seeks to do.

2.5 Summary of Literature Review and Research Gaps

There is a strong association amongst profitability and dividend payouts (Gill et al., 2010; Amidu & Abor, 2006; Al-Kuwari, 2009). Alli, Khan, & Ramirez (1993) established that dividend payout ratio has a positive association with free cash flow of a firm and the agency theory of free cash flow may justify this. However, Kania and Bacon (2005) revealed that dividend payout and liquidity were negatively related. As indicated by Jensen (1986), in free cash flow theory when controlling the agency problem of free cash flow, dividends and debts are substitutes. Furthermore, firms that are highly leveraged pay smaller dividends due to the higher external financing costs and default risk

Dividend payout ratio was found to be negatively related with the growth rate of a company. This is because a firm with high growth needs great amounts of financing so as to invest in projects (Rozeff, 1982; Lloyd, Jahera & Page, 1985; Holder, Langrehr & Hexter, 1998). The existence of a strong negative associaiton amongst the business risk

27

and dividend payout ratio (Rozeff, 1982; Lloyd, Jahera, & Page, 1985; Al-Shubiri, 2011; Aivazian, Booth, & Cleary, 2003). The studies reviewed posted conflicting results pertaining to the effect of the various firm-specific factors and the dividend pay-out ratios. The current study will endeavour to break this gridlock by examining the effect of each firm-specific factor on dividend pay out ratio.

2.6 Conceptual Framework

This shows the correlation with the dependent variable dividend payout ratio ratio is explained by independent variables.; profitability, liquidity, financial leverage, sales growth and business risk. The framework shows that decisions on dividend policy are determined by the selected factors.

Independent Variables   **Dependent Variable**

Profitability
    ROA - (Net Income/Total Assets)

Financial Leverage
    Debt to Equity Ratio - ((Total Liabilities/Total Common Equity) × 100%)

Sales Growth
    Change in sales per year - (Net sales for the current period / (Net sales for the last period) -1)×100%)

Dividend   Payout Ratio
    (Cash   Dividends of   Common Stock/(Income before Extraordinary Items - Minority Interest – Cash Dividends   of

Figure 2.1: Conceptual Framework

28

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The research methodology that was applied is laid out in this chapter. This chapter contains several sections which includes research design explaining the design applied, data collection to explain procedure for gathering data, the population, and the data analysis methods applied.

3.2 Research Design

The study applied an explanatory, ex post facto and causal research design. It was panel data with the scope being a census. It was a field setting with the unit of analysis being the country. It was chosen because it allowed describing the population through a standardized data that is obtained at a given time. This method was utilized because it addressed the aim of research in examining the association amongst variables of the research. The design took into account aspects like sample size relative to target populace, the variables used in the research and data gathering methods (Polit & Beck, 2013).

3.3 Population and Sample

The population in this study comprised of companies listed on the Nairobi Stock Exchange (NSE) between the years 2016 – 2019. The study conducted a census. However, listed firms in the NSE that did not meet certain criteria were expunged from this analysis. The criteria include: Companies listed on the NSE during the period 2016

through 2019, companies that consistently issued dividends, and Companies with complete data required for the study, including annual financial statements for period beginning 2016 through 2019. Listed companies will be used for this study because of the expected credibility of data for listed companies. This is because listed companies are required to adhere to laws stipulated in the Companies Act, guidelines and requirements set out by the NSE and CMA.

3.4 Data Collection

The proposed study utilized secondary data from the released published financial reports of the NSE-listed companies for the period from 2016 to 2019. Secondary data on each variable was obtained from financial position, comprehensive income statements, cash flow statements and annual reports. Secondary data obtained from the annual audited reports by reputable auditing firms is reliable and represents the true and fair picture of the financial performance and position of the companies. Literature from books, journals, research reports and articles related to the subject matter was also used in the study. The study duration was annual.

3.5 Data Analysis

Because panel data was employed for the study, STATA version 13 was the statistical analysis program utilized for the study because it is able to perform panel multiple linear regression. Data collected was first be keyed in Microsoft Excel, organized, tabulated, and then transferred to STATA. Correlation analysis was used to show whether and how strongly changes in determinants of dividend payout are associated to the dividend

payouts while regression analysis was employed to determine the relationship between the two. The OLS regression was utilized and subjected to the data collected fulfilling all the assumptions of Best Linear Unbiased Estimates (BLUE). The quantitative reports obtained from the investigation were displayed using tabulations.

3.5.1 The Model of Analysis

The objectives of the research were attained through use of a multiple linear regression analysis which tested whether factors that affect dividend payout enlisted in the study have any effect on dividend payout. The statistical tests were conducted at 95% significance level meaning that the study allowed for an error of up to 5%. The model is illustrated as shown;

$$DIV_{i,t} = \alpha + \beta 1 PROF_{i,t} + \beta 3 DTE_{i,t} + \beta 4 GROW_{i,t} + \varepsilon_{i,t}$$

Where;

DIV= dividend payout ratio,

α = the intercept of the regression equation,

βk = coefficients of independent variables, where i,t=firms 1,2,3,…8 at time t,

PROF = profitability,

DTE = financial leverage,

GROW = sales growth,

ε = error term

Table 3.1: Operationalization of the study variables

Symbols	Description	Measurement
DIV	Dividend Payout Ratio	(Cash Dividends of Common Stock/Income before Extraordinary Items - Minority Interest – Cash Dividends of Preferred Stock)
PROF	Return of Assets	(Net Income/Total Assets
DTE	Debt to Equity ratio	(Total Liabilities/Total Common Equity)×100%
GROW	Change in sales per year	(Net sales for the current period / Net sales for the last period) -1)×100%

3.5.2 Diagnostic Tests

For the validity of regression analysis, a number of assumptions are done in conducting linear regression models. These are; no multi-collinearity, observations are sampled randomly, conditional mean ought to be zero, linear regression model is "linear in parameters", spherical errors: there is homoscedasticity and no auto-correlation, and the optional assumption: error terms ought to be distributed normally. According to the Gauss-Markov Theorem, the first 5 assumptions of the linear regression model, the regression OLS estimators, are the Best Linear Unbiased Estimators (Grewal *et al*., 2004).

The aforementioned assumptions are of great importance since when any of them is violated it would mean the regression estimates will be incorrect and unreliable. Particularly, a violation would bring about incorrect signs of the regression estimates or

the difference of the estimates would not be reliable, resulting to confidence intervals that are either too narrow or very wide (Gall et al., 2006).

The diagnostic tests are conducted so as to guarantee that the assumptions are met to attain the Best Linear Unbiased Estimators. Regression diagnostics assess the model assumptions and probe if there are interpretations with a great, unwarranted effect on the examination or not. Diagnostic examinations on normality, linearity, multicollinearity, and autocorrelation will be done on the collected data to establish its suitability in the formulation of linear regression model. Normality was tested by the Shapiro-Francia test, which is suitable for testing distributions of Gaussian nature which have specific mean and variance. Linearity indicates a direct proportionate association amongst dependent and independent variable such that variation in independent variable is followed by a correspondent variation in dependent variable (Gall et al., 2006). Linearity was tested by determining homoscedasticy, which was determined by the Breusch-Pagan Cook-Weisberg Test for Homoscedacity.

Tests for multicollinearity of data was carried out using variance inflation factors (VIF) to determine whether the predictor variables considered in the research are significantly correlated with each other. According to Grewal *et al*. (2004) the main sources of multicollinearity are small sample sizes, low explained variable and low measure reliability in the independent variables. Auto-correlation test was carried out through the Durbin-Watson Statistic. Additionally, to avoid spurious regression results unit root test was carried out on the panel data. The aim of conducting unit root test is to check whether the macroeconomic variables under study are integrated of order on (1, 1) or not

before estimation procedure can be proceeded into. Unit root test was conducted through the Fisher-type unit root test.

3.5.3 Tests of Significance

The study adopted a confidence interval of 95%. The results were set to be statistically significant at the 0.05 level, which indicates that the significance value should be less than 0.05. A statistical inference technique was used in making conclusions relating to the accuracy of the model in predicting the market capitalization. The model significance was tested using the significance values at 95% confidence. The meaning of the association amongst every predictor variable plus response variable was also determined by the significance values, which illustrates how much standard errors indicated that the sample deviates from the tested value.

CHAPTER FOUR: DATA ANALYSIS, RESULTS, AND FINDINGS

4.1 Introduction

This chapter entails of the data analysis, interpretation and the discussions of the outcomes. The section hence is fragmented to four sub sections, which entail diagnostic tests, inferential statistics, and interpretation and the arguments regarding the outcomes. Precisely this chapter summarizes the platform for data presentations, analysis, interpretations, and discussions.

4.2 Response Rate

All the 65 listed firms in the NSE, whose list is provided in Appendix I, were the target population in the study. The study employed a census approach and the entire population was to be examined. However, thirty five firms were either suspended from the Exchange for more than 2 years, delisted within the study period, did not publish their financial statements for more than two financial periods, or they did not give out dividends for more than two years during the study period. Thus, 30 listed firms were utilized for this analysis.

4.3 Diagnostic Tests

Diagnostic tests that are a precursor to conducting linear regression were conducted. Diagnostic tests done in this study included; normality tests, homoscedasticity tests, multicollinearity tests, and autocorrelation tests. Normality test was carried out using the Shapiro-Francia test and the homoscedasticity test was conducted through the Breusch-Pagan Cook-Weisberg Test for Homoscedacity. Test on Multicolinearity of data was

carried out using Variance Inflation Factors (VIF) while the autocorrelation test was done

through the Durbin-Watson statistic. Unit root test was conducted through the Fisher-type

unit root test. Additionally, the Hausman test was conducted to determine whether fixed

or variable effects panel regression should be conducted.

4.3.1 Normality Test

The normality tests for all the variables employed in the study are highlighted in Table

4.1.

Table 4.1: Shapiro-Francia Test for Normality

Variable	Obs	W'	V'	z	Prob>z
DividendPa~t	118	0.88834	11.653	4.906	0.00001
Profitabil~y	118	0.74184	26.941	6.58	0.00001
Leverage	118	0.74240	26.883	6.576	0.00001
Growth	118	0.07911	96.103	9.121	0.00001

In the test, the null hypothesis holds that the data has a normal distribution. The level of

significance adopted in the study is 5%. The significance values of all the data series

employed in the study are less than α (0.05), thus the null hypothesis is rejected. Hence,

the data series of the variables are not normally distributed. Thus, the variables were

standardized as a remedy for normalizing skewed data.

4.3.2 Homoscedacity Test

The homoscedacity tests for all the predictor variables employed in the study are enlisted

in Table 4.2.

Table 4.2: Breusch-Pagan/Cook-Weisberg Test for Homoscedacity

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of DividendPayout

chi2(1)   =   0.83
Prob > chi2 = 0.3625

The null hypothesis is that there is homoscedacity. The level of significance adopted in the study is 5%. Since the significance value is greater than α (0.05), the null hypothesis is not rejected. Hence, the data series of all the predictor variables are homoscedastic.

4.3.3 Test for Multicollinearity

Results on Test for Multicolinearity of data carried out using Variance Inflation Factors (VIF) are displayed in Table 4.3.

Table 4.3: VIF Multicollinearity Statistics

Variable	VIF	1/VIF
Profitabil~y	1.2	0.836491
Growth	1.1	0.912508
Leverage	1.1	0.913049
Mean VIF	1.13	

The common rule in statistics is that the VIF values should be less than 10 and greater than 1. The findings indicate that the individual and mean VIF values fall below 10 and are greater than 1. Hence, there is no presence of multicollinearity amongst the predictor variables utilized in the study.

4.3.4 Tests for Autocorrelation

Test for Autocorrelation of data was carried out using the Durbin Watson statistic. The findings displayed that Durbin-Watson d-statistic (4, 118) = 0.8344724. The Durbin-Watson statistic ranges from point 0 and point 4. If there exist no correlation between variables, a value of 2 is shown. If the values fall under point 0 up to a point less than 2, this is an indication of an autocorrelation and on the contrast a negative autocorrelation exist if the value falls under point more than 2 up to 4. As a common rule in statistics, value falling under the range 1.5 to 2.5 is considered relatively normal whereas values that fall out of the range raise a concern (Shenoy & Sharma, 2015). Field (2009) however, opines that values above 3 and less than 1 are a sure reason for concern. Therefore, the data used in this panel is serially autocorrelated since it does not meet this threshold. Generalized Least Squares (GLS) regression was undertaken as a solution for autocorrelation.

4.3.5 Unit Root Test

The results for the unit root test conducted for the data series dividend payout is displayed in Table 4.4. The null hypothesis is that dividend payout has a unit root and the alternate hypothesis is that the variable is stationery. Since the significance values for the P, Z, L* and Pm tests are all less than the critical value (α) at the 5% confidence level, then the null hypothesis is rejected. Thus, the panel data series is stationery.

Table 4.4: Unit Root Test for Dividend Payout

Fisher-type unit-root test for DividendPayout

Based on augmented Dickey-Fuller tests

Ho: All panels contain unit roots		Number of panels =		30
Ha: At least one panel is stationary		Avg. number of periods =		3.93
AR parameter: Panel-specific		Asymptotics: T -> Infinity		
Panel means: Included				
Time trend: Not included				
Drift term: Not included		ADF regressions: 0 lags		
		Statistic	p-value	
Inverse chi-squared (60)	P	196.3814	0.0000	
Inverse normal	Z	-3.8636	0.0001	
Inverse logit t(144)	L*	-7.3017	0.0000	
Modified inv. chi-squared	Pm	12.4499	0.0000	

The results for the unit root test conducted for the data series profitability is displayed in Table 4.5.

Table 4.5: Unit Root Test for Profitability

Fisher-type unit-root test for Profitability

Based on augmented Dickey-Fuller tests

Ho: All panels contain unit roots		Number of panels =		30
Ha: At least one panel is stationary		Avg. number of periods =		3.93
AR parameter: Panel-specific		Asymptotics: T -> Infinity		
Panel means: Included				
Time trend: Not included				
Drift term: Not included		ADF regressions: 0 lags		
		Statistic	p-value	
Inverse chi-squared(60)	P	496.1346	0.0000	
Inverse normal	Z	-11.2957	0.0000	
Inverse logit t(144)	L*	-23.7382	0.0000	
Modified inv. chi-squared	Pm	39.8135	0.0000	

The null hypothesis is that profitability has a unit root and the alternate hypothesis is that the variable is stationery. Since the significance values for the P, Z, L* and Pm tests are

all less than the critical value (α) at the 5% confidence level, then the null hypothesis is rejected. Thus, the panel data series is stationery.

The results for the unit root test conducted for the data series leverage is displayed in Table 4.6 below.

Table 4.6: Unit Root Test for Leaverage

Fisher-type unit-root test for Leverage				
Based on augmented Dickey-Fuller tests				
Ho: All panels contain unit roots		Number of panels =		30
Ha: At least one panel is stationary		Avg. number of periods =		3.93
AR parameter: Panel-specific		Asymptotics: T -> Infinity		
Panel means: Included				
Time trend: Not included				
Drift term: Not included		ADF regressions: 0 lags		
		Statistic	p-value	
Inverse chi-squared(60)	P	234.9054	0.0000	
Inverse normal	Z	-4.0279	0.0000	
Inverse logit t(124)	L*	-10.1262	0.0000	
Modified inv. chi-squared Pm		15.9666	0.0000	

The null hypothesis is that leverage has a unit root and the alternate hypothesis is that the variable is stationery. Since the significance values for the P, Z, L* and Pm tests are all less than the critical value (α) at the 5% confidence level, then the null hypothesis is rejected. Thus, the panel data series is stationery.

The results for the unit root test conducted for the data series growth is displayed in Table 4.7.

Table 4.7: Unit Root Test for Growth

Fisher-type unit-root test for Growth				
Based on augmented Dickey-Fuller tests				
Ho: All panels contain unit roots			Number of panels =	30
Ha: At least one panel is stationary			Avg. number of periods =	3.93
AR parameter: Panel-specific			Asymptotics: T -> Infinity	
Panel means: Included				
Time trend: Not included				
Drift term: Not included			ADF regressions: 0 lags	
		Statistic	p-value	
Inverse chi-squared(60)	P	390.6140	0.0000	
Inverse normal	Z	-7.5346	0.0000	
Inverse logit t(144)	L*	-17.8195	0.0000	
Modified inv. chi-squared Pm		30.1808	0.0000	

The null hypothesis is that growth has a unit root and the alternate hypothesis is that the variable is stationery. Since the significance values for the P, Z, L* and Pm tests are all less than the critical value (α) at the 5% confidence level, then the null hypothesis is rejected. Thus, the panel data series is stationery.

4.4 Inferential Statistics

Inferential statistics were used in determining the direction, relationship, and strength of the association between the predictor variables and the response variable. The section entails the inferential statistics employed in the study, which included correlation and panel multiple linear regression analysis.

4.4.1 Correlation Analysis

Correlation analysis establishes whether there exists an association among two variables. The association falls between a perfect positive and a strong negative correlation. The

study used Pearson Correlation. This study employed a Confidence Interval of 95% and a two-tail test. The correlation test was done to ascertain the association between financial risk and financial performance.

Table 4.8: Correlation Analysis

```
                  |  Divide~t Profit~y Leverage   Growth
                  ---------------------------------------
     DividendPa~t |   1.0000


     Profitabil~y |  -0.0921    1.0000
                  |   0.3214


         Leverage |   0.0565  -0.2917*   1.0000
                  |   0.5432    0.0014


           Growth |   0.1064  -0.2926*   0.0442    1.0000
                  |   0.2514    0.0013    0.6346
```

Table 4.10 displays that profitability, leverage, and growth do not have a significant association with dividend payout at the 5% significance level.

4.3.2 Multiple Linear Regression

The panel regression model assessed the effect of profitability, leverage, and growth on dividend payout. Before regression was conducted, the variables had to be transformed because they did not meet the conditions of normality and autocorrelation. The variables that did not meet the conditions of normality were standardized as a remedy for rectifying normality. Due to the data series employed in the study not adhering to the condition of auto-correlation, Generalized Least Squares (GLS) regression was undertaken. The regression analysis was established at the 5% significance level. The significance critical

42

value exhibited from the Analysis of Variance and Model Coefficients were compared with the values obtained in the analysis. The findings are displayed in Table 4.9.

Table 4.9: Panel Multiple Linear Regression

Random-effects GLS regression				Number of obs	=		118
Group variable: ID				Number of groups	=		30
R-sq: within $= 0.0127$				Obs per group: min =			3
between $= 0.0083$				avg =			3.9
overall $= 0.0095$				max =			4
				Wald chi2(3)	=		1.34
corr(u_i, X) $= 0$ (assumed)				Prob > chi2	=		0.7192

zDividendPay~t	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
zProfitability	-.0864905	0.121185	-0.71	0.475	-.3240082	0.151027
zLeverage	-.0395577	0.144176	-0.27	0.784	-.3221365	0.243021
zGrowth	.0403527	0.057991	0.70	0.487	-.0733068	0.154012
_cons	-.0089026	0.16809	-0.05	0.958	-.338353	0.320548

sigma_u .88774831			
sigma_e .54077127			
rho .72936115	(fraction	of variance due to u_i)	

The overall R^2 indicates deviations in response variable as a consequence of differences in predictor variables. The overall R^2 value is 0.0095, a discovery that 0.95% of the deviations in dividend payout are caused by firm specific factors included in the study that entail; profitability, leverage, and growth. Other factors not incorporated in the model justify for 99.05% of the variations in dividend payouts.

The null hypothesis is that the model consisting of firm specific factors included in the study that entail; profitability, leverage, and growth do not significantly influence dividend payout. The significance value obtained in the study (Prob > F =0.7192) is greater than critical value of 0.05. Consequently, the null hypothesis is not rejected. Thus,

the firm specific factors included in the study that entail; profitability, leverage, and growth in unison do not influence dividend payout. Thus, they cannot be utilized to significantly predict dividend payout.

The null hypothesis was that there was no significant relationship between profitability, leverage, and growth in isolation and dividend payout. The study findings exhibited that all the predictor variables do not have a significant relationship with dividend payout. This is because their significance values are greater than the critical significance value (α) of 0.05.

4.4 Interpretation and Discussion of Findings

The study endeavored to establish the effect of firm specific factors on dividend payout of listed firms at the Nairobi Securities Exchange. The study specifically sought to establish effects of firm profitability, leverage, and growth on the dividend payout of listed firms at the Nairobi Securities Exchange. The variables had to be transformed because they did not meet the conditions of normality and autocorrelation. The variables that did not meet the conditions of normality were standardized as a remedy for rectifying normality. Due to the data series employed in the study not adhering to the condition of auto-correlation, Generalized Least Squares (GLS) regression was undertaken.

The study findings established that profitability, leverage, and growth do not have a significant association with dividend payout at the 5% significance level. Additionally, the study findings revealed that the model consisting of firm specific factors included in

44

the study that entail; profitability, leverage, and growth do not significantly influence dividend payout and they cannot be utilized to significantly predict dividend payout. Further findings were that profitability, leverage, and growth do not have a significant relationship with dividend payout.

The study finding that profitability neither has a significant association nor relationship with dividend payout is not in tandem with the assertion by Badu (2013) that a highly profitable organization has the ability to pay high dividends in comparison to a company with low profits or a company incurring losses which will implement a conservative dividend policy. Njuguna & Jagongo (2015) also in a study of factors considered in dividend payout decisions of firms listed on the NSE concluded profitability as the main factor determining dividend payout across different firms and industries. Profitability is measured as a ratio of return over equity.

Dividend payout decision is influenced by the firm's profitability though the pecking order theory has a different view. The pecking order theory contends that firms have an inclination to fund positive NPV projects using retained earnings thereby retaining more profits and minimizing the payout amount (Myers & Majluf, 1984). However, some other studies have revealed that firms with consistent earnings usually end up paying more dividends. Alzomaia & Al Kadhiri (2013) found that companies are willing to pay a high amount of dividend if the company's profitability increase. Aivazian, Booth, & Cleary (2003) undertook a study on how profitability is related to dividend payout ratio and revealed that both in the US and emerging markets, profitability determines the firms

dividend payout. Juma'h & Pacheco (2008) conducted a investigation on factors affecting cash dividend sampling some manufacturing firms in US. The findings were that profitability was a significant determinants of cash dividend decision.

The study finding that leverage neither has a significant association nor relationship with dividend payout is not in tandem the assertion by Komrattanapanya (2013) that a firm with high level of debt will restrict payment of dividends and thus investors wishing to get high dividends should avoid investing in companies with high financial leverage. Aivazian, Booth, & Cleary (2003) and Rozeff (1982) have found high debt ratios relate to lower dividend. However, some other studies have shown positive association amongst financial leverage and dividend payout ratio at 10% level of significance (Kapoor, Anil, & Misra, 2010). These studies are in agreement with the current study findings.

Highly leveraged firms avoid paying more dividend so as to reserve their cash (Rozeff, 1982). Jensen (1986) also observed that low dividends are anticipated from highly leveraged firms. Highly leveraged firms reserve their earnings internally to service their debt as opposed to paying dividend to equity holders. On the contrary, Kapoor, Anil, & Misra (2010) found a positive relationship between dividend payout ratio and related long term solvency at 10% level of significance. Another study on dividend policy of sixteen banks in Ghana revealed that there was a positive association of dividend payout and bank's debt (Marfo-Yiadom & Agyei, 2011). Most of the studies show financial leverage does not signficantly affect dividend payout policy (Kim & Gu, 2009; Al-Malkawi, 2007; Gill et al, 2010). This is in tandem with the current study findings.

The study finding that sales growth neither has a significant association nor relationship with dividend payout is not in tandem the assertion by Rozeff (1982) that a rise in the level of sales is a positive indicator in expansion of the firm's operations. A high growth firm needs a huge amount of funding to finance new arising projects. Such firms will therefore tend to retain a huge amount of their internal funds and limit dividend payments so as to retain more funds for investment. This is because externally borrowed funds are costly due to payment of fixed charges like interest and the principal amount. Another study by Marfo-Yiadom & Agyei (2011) revealed negative association amongst sales growth and dividend payout as Ghana's high growth banks used their retained earnings to finance projects. Contrastingly, other studies have found that higher sales growth lead to higher profits and hence higher dividend distribution (Kania & Bacon, 2005).

Fama & French (2001) revealed that companies having better investment and growth opportunities usually have a lower dividend payout. This concurs with Rozeff (1982) findings which contend that a firm experiencing growth retains its earnings and minimizes dividend payout to avoid using high cost external funds. Other studies have also found the same result where growth opportunities of the firm have a negative relationship to dividend payment (Amidu & Abor, 2006) and (Alzomaia & Al Kadhiri, 2013). Some studies have however shown a positve relationship between sales growth and dividend payout. When companies have high sales growth they are likely to have higher profits from which they can distribute dividends to shareholders (Kania & Bacon, 2005).

The study finding that sales growth and dividend payout do not have a significant association is however in tandem with Modigliani and Miller (1958) dividend their irrelevance theory which states that dividend polices have no effect on their financing and investment decisions.

Ndungu (2009) undertook a study to establish what determined the dividend policy for fifty-five firms listed at the NSE using a multiple regression analysis for a period 2004 to 2018. The study indentified factors such as growth and profitability affected the dividend payout ratio. Karani (2015) undertook a study on the determinants of dividend policy of commercial banks in Kenya and found strong positive association amogst profitability and dividend payout ratio. Another study revealed that for publicly listed companies at the NSE, dividend payout was significantly affected by earning (Bulla, 2013). Rozeff (1982) in a study regarding dividend determinants in the U.S.A sampled 1000 firms from 64 different industries from a value line investment survey in 1981. The study established that sales growth and dividend payout, and financial leverage have a significant effect on dividend payout ratio. These study findings are not in tandem with the current study findings

Fitri, Hosen, & Muhari (2016) conducted a study on 30 firms listed at Jakarta Islamic Index within the study period 2004 and 2014. They findings revealed that profitability had positive association with dividend payout ratio. Growth on the contrast had negative and significant effect on dividend payout ratio. Suntraruk (2014) in a study of factors influencing dividend payout, used a sample of all firms listed on the Thailand Stock

Exchange excluding firms with incomplete data. The findings were that firm's leverage and sales growth are inversely impacted by dividend payout. On the other hand, profitability was positively related with dividend payout. These study findings are not in tandem with the current study findings

Jóźwiaka (2015) conducted a study on dividend policy determinants of Polish non-financial firms quoted on the Warsaw Stock Exchange for the period covering 2000 to 2012. The results showed that firms profitability measured by ROE negatively and significantly affect divident payout ratio. This finding concurred with the pecking order theory that management prefer internally generated funds rather than external debt to finance operations (Myers & Majluf, 1984). However, this finding is inconsistent with the findings of Fitri, Hosen, & Muhari (2016); Al-Kuwari (2009) and (Amidu & Abor, 2006) which found positive association amongst profitability and dividend payout ratio. These study findings are not in tandem with the current study findings

Tiriongo (2004) carried out an investigation on dividend policy practices in firms quoted at the Nairobi Stock Exchange from 1993 to 2002. A sample of 49 companies was used for the study. The results of the study showed profitability and leverage to be the most significant factors affecting dividend in the agricultural sector. Financial sector was mainly affected by expected growth rate. King'wara (2015) did a study on the dividend payout ratio determinants in Kenya for the period 2008 – 2012. His sample included 30 firms listed on the NSE that were non-financial, non-utility and had continuosly paid dividends within the period under study. The results revealed negative significant

association amongst growth rate and dividend payout ratio. There was a positive association amongst earnings and dividend payout ratio. These findings are not in tandem with the current study findings. An insignificant negative association was shown amongst leverage and dividend payout ratio. This is in agreement with the current study findings.

Another study was conducted by Kathuo & Kimoro (2017) on determinants of dividend policy decisions of 11 listed banks in Kenya over the five year period 2011-2015. A review of the regression coefficients obtained revealed that profitability had a positive and significant association with dividend policy decision. This finding is not in tandem with the current study findings.

CHAPTER FIVE: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

This section shows the study findings summary, offered conclusions, and recommendations on the effect of bank specific factors on dividend payout of listed firms at the Nairobi Securities Exchange. Additionally, the research limitations and further research suggestions are also outlined.

5.2 Summary of Findings

The study endeavored to assess the effect of firm-specific factors on dividend payout of listed firms at the Nairobi Securities Exchange. The study specifically sought to establish effects of firm profitability, leverage, and growth on the dividend payout of listed firms at the Nairobi Securities Exchange. The study employed the use of correlation and regression analyses. The correlation analysis employed in the study established that profitability, leverage, and growth were not significantly correlated with dividend payout at the 5% significance level. The panel multiple linear regression revealed that that the model consisting of firm specific factors included in the study that entail; profitability, leverage, and growth do not significantly influence dividend payout and they cannot be utilized to significantly predict dividend payout. Further findings were that profitability, leverage, and growth do not individually have a significant relationship with dividend payout.

5.3 Conclusion

In this section, the conclusion of the study is given; the conclusion is affiliated to the study objective, which was to establish the effect of firm-specific factors on dividend payout of listed firms at the Nairobi Securities Exchange. The conclusions were further made in alignment to the study's incidental objectives. The study concluded that the firm specific factors do not have a statistically significant relationship with dividend payout. Further conclusions were that profitability, leverage, and growth neither had a statistically significant relationship nor association with dividend payout.

5.4 Recommendations

The study findings will aid in further researches to be conducted on the field of firm specific factors and their impact on dividend payout. Later scholars keen in research on firm specific factors and their impact on dividend payout will use the study findings as referral. Policy recommendations are made to the CMA and NSE, and by extension, the National Treasury, not focus on bank specific factors when endeavoring to formulate and enforce rules and regulations on dividend payout since it has been established that they do not significantly influence the dividend payout of quoted firms. The recommendation will guide government regulators in making policies and practices to boost the capital markets and in extension, the financial system, to mitigate collapse of listed companies and ensure lack of stability in value of financial securities issued in the capital markets.

The finding that none of the firm-specific factors utilized in the study have any significant effect on dividend payout generates conclusions to firm management and

consultants not to focus on firm specific factors when trying to signal investors in order to boost firm value. Other stakeholders like investment banks, equity analysts, and individual investors should not analyze the bank specific factors when trying to forecast dividends, which are a major component in calculating returns.

5.5 Limitations of the Study

The study was conducted only in the capital markets context, due to time and cost and also availability of data constraints, which does not give clear indication of findings if firms in other sectors like Over the Counter (OTC) markets and SMEs or all the firms in the economy were also incorporated in the study. More uncertainties would occur if similar studies were replicated in firms outside the realm of capital markets. Although the research engaged secondary sources of data, there were some major challenges like some of the data being not readily available; especially data on dividend payout and it took great lengths and costs to obtain it. The data was not utilized in their raw form and further calculations and manipulations of the data were required. Impending delays were experienced due to data processing and further editing before the compilation by the researcher.

5.5 Suggestions for Further Study

Exploring the influence of firm specific factors on dividend payout is of great importance to policy makers in the National Treasury, CMA, and NSE, practitioners in the capital markets, and consultants. However, the current study was carried out in the capital markets context, the same study could be carried out across other firms like Small and

Medium-Sized Enterprises (SMEs) establish if the study findings would hold. The study was only carried out in the Kenyan context, further studies can be conducted out of Kenyan context, they can be conducted in the African or global jurisdictions to establish whether the study findings would hold.

The study only considered profitability, leverage, and growth as the firm-specific factors that influence dividend payout. Further studies can be conducted to ascertain if there are factors that influence dividend payout. This study used secondary data, a subsequent research should be undertaken applying primary data to ascertain if the study findings would hold and either complement or criticize the finding of this study. Multiple linear regression and correlation analysis were applied in the study; other analysis technique for example cluster analysis, discriminant analysis, granger causality and factors should be incorporated in the subsequent research.

REFERENCES

Adam, T., & Goyal, V. K. (2008). The Investment Opportunity Set and its Proxy Variables. *Journal of Financial Research,, 31*(31), 41-63.

Adjirackor, T., Asare, D. D., Asare, D. F., Gagakuma, W., & Okogun-Odompley, N. J. (2017). Financial Ratios as a Tool for Profitability in Aryton Drugs. *Research Journal of Finance and Accounting, 8*(14), 1-10.

Aivazian, V., Booth, L., & Cleary, S. (2003). Do Emerging Market Firms Follow Different Dividend Policies from U.S. Firms? *Journal of Financial Research, 26*, 371-387.

Al-Kuwari, D. (2009). Determinants of the Dividend Policy in Emerging Stock Exchanges: The Case of GCC Countries. *Global Economy & Finance Journal, 2*(2), 38-63.

Allen, F., Bernardo, A., & Welch, I. (2000). A Theory of Dividends Based on Tax Clientelles. *Journal of Finance, 55*, 2499-2536.

Alli, K. L., Khan, A. Q., & Ramirez, G. G. (1993). Determinants of Corporate Dividend Policy: A Factorial Analysis. *The Finance Review, 28*, 523-547.

Al-Malkawi, H.-A. N., Rafferty, M., & Pillai, R. (2010). Dividend Policy: A Review of Theories and Empirical Evidence. *International Bulletin of Business Administration*, 171-200.

Al-Malkawi, N. H. (2007). Determinants of Corporate Dividend Policy in Jordan: An application of the Tobit Model. *Journal of Economic & Administrative Sciences,, 23*, 44-70.

Al-Shubiri, F. N. (2011). Determinants of Changes Dividend Behavior Policy: Evidence from the Amman Stock Exchange. *Far East Journal of Psychology and Business, 4*, 1-15.

Alzomaia, T., & Al Kadhiri, A. (2013). Determination of Dividend Policy: The Evidence from Saudi Arabia. *Journal of Business and Social Science,, 4*(1), 5-18.

Amidu, M., & Abor, J. (2006). Determinants of Dividend Payout Ratios in Ghan. *Journal of Risk Finance,, 7*(2), 136-145.

Anil, K., & Kapoor, S. (2008). Determinants of Dividend Payout Ratios - A Study of Indian Information Technology Sector. *International Research Journal of Finance and Economics, 38*, 1-9.

Badu, A. E. (2013). Determinants of Dividend Payout Policy of Listed Financial Institutions in Ghana. *Research Journal of Finance and Accounting, 4*(7), 185-190.

Baker, K. H., & Powell, G. E. (1999). How Corporate Managers View Dividend Policy. *Quarterly Journal of Business and Economics, 38*(2), 17-35.

Bhat, R., & Pandey, I. (1994). Dividend Decisions: A study of Managers' Perceptions. *Decision, 21*, 67-86.

Bhattacharya, S. (1979). Imperfect Information, Dividend Policy, and "The Bird in the Hand" Fallacy. *The Bell Journal of Economics, 10*(1), 259-270.

Bishop, S., Harvey, R. C., Robert, W. F., & Garry, J. T. (2000). *Corporate Finance.* Sydney): Prentice Hall Inc.

Brealey, Richard, A., & Myers, S. (2002). *Principles of Corporate Finance.* Boston: Irwin McGraw-Hill.

Brigham, E., & Gapenski, L. (1996). *Financial Management: Theory and Practice,*. New York: Dryden Press.

Brockington, R. (2013). *Financial Management* (12th ed.). DP Publishers.

Bulla, D. (2013). An Empirical Analysis of Selected Factors Affecting Dividend Policy of Listed Firms at the Nairobi Securities Exchange. *African Journal of Accounting, Economics, Finance and Banking Research, 9*(9), 47-57.

Deitiana, T., Wirasasmita, Y., Kartini, D., & Padmadisastra, S. (2015). Influence of Financial Ratio and Sales Growth on Dividend and implication of Stock Price on Manufacturing Companies listed on Indonesian Stock Exchange. *International Journal of Economics, Commerce and Management, 3*(11), 604-623.

Durrah, O., Rahman, A. A., Jamil, S. A., & Ghafeer, N. A. (2016). Exploring the Relationship between Liquidity Ratios and Indicators of Financial Performance: An Analytical Study on Food Industrial Companies Listed in Amman Bursa. *International Journal of Economics and Financial Issues, 6*(2), 435-441.

Easterbrook, F. H. (1984). Two Agency-Cost Explanations of Dividends. *The American Economic Review, 74*(4), 650-659.

Fama, E. F., & French, K. R. (1988). Dividend Yields and Expected Stock Returns. *Journal of Financial Economics, 22*(1), 3-25.

Fama, E., & French, K. (2001). Disappearing Dividends: Changing Firm Characteristics or Lower Propensity to pay? *Journal of Financial Economics, 60*(1), 3-43.

Fisher, G. R. (1961). Some Factors Influencing Share Prices. *Economic Journal*, 121-141.

Fitri, R., Hosen, M., & Muhari, S. (2016). Analysis of Factors that Impact Dividend Payout Ratio on Listed Companies at Jakarta Islamic Index. *International Journal of Academic Research in Accounting, Finance and Management Sciences, 6*(2), 87-97.

Gall, M. D., Gall, J. P., & Borge, W. R. (2006). *Educational Research: An Introduction.* (8th ed.). New York: Pearson.

Gill, A., Biger, N., & Tibrewala, R. (2010). Determinants of Dividend Payout Ratios: Evidence from United States. *The Open Business Journal, 3*, 8-14.

Glen, J. D., Karmokolias, Y., Miller, R. R., & Shah, S. (1995). Dividend policy and behavior in emerging markets: To pay or not to pay. *IFC Discussion paper 26.* Washington DC: International Finance Corporation.

Gordon, M. (1963). Optimal Investment and Financing Policy. *The Journal of Finance, 18*, 264-272.

Grewal, D., Levy, M., & Lehmann, D. (2004). Retail Branding and Customer Loyalty: An Overview. *The Journal of Retailing, 80*(4), 9-12.

Grullon, G., Michaely, R., & Swaminathan, B. (2002). Are Dividend Changes a Sign of Firm Maturity? *The Journal of Business, 75*(3), 387-424.

Hasan, M., Ahmad, M., Rafiq, M., & Rehman, R. (2015). Dividend Payout Ratio and Firm's Profitability. Evidence from Pakistan. *Theoretical Economics Letters, 5*, 441-445.

Heidari, P., & Khaksari, M. (2008). Examining the Determinants of Dividend Policy over Tehran Stock Exchange (TSE). *Development and Capital Journal, 2*, 183-190.

Hellström, G., & Inagambaev, G. (2012). Determinants of Dividend Payout Ratios A Study of Swedish Large and Medium Caps. *Unpublished Degree Project*.

Ho, H. (2003). Dividend Policies in Australia and Japan. *International Advances in Economic Research,, 9*(2), 91-100.

Holder, M. E., Langrehr, F. W., & Hexter, L. J. (1998). Dividend Policy Determinants: An Investigation of the Influences of Stakeholder Theory. *Journal of the Financial Management, 27*(3), 73-83.

Jensen, G., & Johnson, J. (1995). The Dynamics of Corporate Dividend Reductions. *Financial Management, 24*(4), 31-51.

Jensen, M. C. (1986). Agency Costs of Free Cash Flow, Corporate Finance and Takeovers. *American Economic Review, 76*, 323-329.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics, 3*(4), 305-360.

Jensen, M. C., & Smith, C. W. (1984). *The Theory of Corporate Finance: A Historical Overview.* New York: McGraw-Hill.

Jóźwiaka, B. (2015). Determinants of Dividend Policy: Evidence from Polish Listed Companies. *Procedia Economics and Finance, 23*, 473 – 477.

Juma'h, A., & Pacheco, O. (2008). The Financial Factors Influencing Cash Dividend Policy: A Sample Of U.S. Manufacturing Companies. *Inter Metro Business Journal, 4*(2), 23-43.

Kania, S. L., & Bacon, F. W. (2005). What factors motivate the corporate dividend decision? *ASBBS E-Journal,, 1*, 97-107.

Kapoor, S., Anil, K., & Misra, A. (2010). Dividend Policy Determinants of Indian FMCG Sector: A Factorial Analysis. *Journal of Modern Accounting and Auditing, 6*, 50-64.

Karani, L. O. (2015). An Evaluation of Factors Affecting Dividend Pay Out Ratio of Locally Owned Commercial Banks in Kenya. *Unpublished Academic Paper*.

Kathuo, S., & Kimoro, J. (2017). Determinants of Dividend Policy Decisions of the Listed Banks in Kenya. *International Journal of Management & Business Studies, 7*(2), 16-21.

Kenton, W. (2019, July 22). *Investopedia*. Retrieved from Investopedia: https://www.investopedia.com/terms/i/industry.asp

Kester, V. (1986). Capital and Ownership Structure: A comparison of United States and Japanese Manufacturing Corporations. *Financial Management*, 5-16.

Khan, F., & Ahmad, N. (2017). Determinants of Dividend Payout: An Empirical Study of Pharmaceutical Companies of Pakistan Stock Exchange (PSX). *Journal of Financial Studies & Research, 2017*, 1-16.

Kim, H., & Gu, Z. (2009). Financial Features of Dividend-Paying Firms in the Hospitality Industry: A Logistic Regression Analysis. *International Journal of Hospitality Management, 28*, 359–366.

King'wara, R. (2015). Determinants of Dividend Payout Ratios in Kenya. *Research Journal of Finance and Accounting, 6*(1), 48-51.

Kinyua, I. (2013). The Relationship Between Earning Volatility and the Dividend Payout of Firms Listed At The Nairobi Securities Exchange. *Unpublished MBA Project*.

Komrattanapanya, P. (2013). Factors Influencing Dividend Payout in Thailand: A Tobit Regression Analysis. *International Journal of Accounting and Financial Reporting, 3*(2), 255-268.

Labhane, N. B., & Ramesh, C. D. (2015). Determinants of Divident Payout Ratio: Evidence From Indian Companies. *Business and Economic Research, 5*(2), 217-241.

Lintner, J. (1956). Distribution of Incomes of Corporations among Dividends, Retained Earnings and Taxes. *American Economics Review, 46*(2), 97-113.

Lintner, J. (1956). Distribution of Incomes of Corporations Among Dividends, Retained Earnings and Taxes. *American Economic Review*(46), 97-133.

Lintner, J. (1956, May). Distribution of Incomes of Corporations Among Dividends, Retained Earnings, and Taxes. *The American Economic Review, 46*(2), 97-113.

Lintner, J. (1962). Dividends, Earnings, Leverage, Stock Prices and Supply of Capital to Corporations. *The Review of Economics and Statistics, 64*, 243-269.

Litzenberger, R., & Ramaswamy, K. (1982). The Effects of Dividends on Common Stock Prices Tax Effects or Information Effects? *The Journal of Finance, 37*(2), 429-443.

Lloyd, W. P., Jahera, S., & Page, D. (. (1985). Agency cost and dividend payout ratios. *Quarterly Journal of Business and Economics, 24*(3), 19-29.

Marfo-Yiadom, E., & Agyei, S. K. (2011). Determinants of Dividend Dolicy of Banks in Ghana. *International Research Journal of Finance and Economics, 61*, 99-108.

Masry, M., Sakr, A., & Amer, M. (2018). Factors Affecting Dividend Policy in an Emerging Capital Markets (ECM's) Country: Theoretical and Empirical Study. *International Journal of Economics, Finance and Management Sciences, 6*(4), 139-152.

Mbuki, P. (2010). The Factors that Determine Dividend Payout Ratio among Sacco's in Kenya. *Unpublished MBA Project*.

McManus, I. D., Gwilym, O. A., & Thomas, S. (2004). The Role of Payout Ratio inthe Relationship between Stock Returns and Dividend Yield. *Journal of Business Finance & Accounting, 31*(9), 1355-1387.

Miller, M., & Modigliani, F. (1961). Dividend Policy, Growth, and the Valuation of Shares. *The Journal of Business, 34*(4), 411-433. Retrieved from http://www.jstor.org/stable/2351143

Miller, M., & Rock, K. (1985). Dividend Policy under Asymmetric Information. *The Journal of Finance, 40*, 1031-1051.

Modigliani, F., & Miller, M. (1958). The Cost of Capital, Corporation Finance and the Theory of Investment. *The American Economic Review, 48*, 261-297.

Mutindi, M. M., Githii, W., & Mwangi, M. M. (2018). Corporate Earnings and Dividend Payout Ratio of Commercial Banks in Kenya. *IOSR Journal of Business and Management, 20*(4), 69-75.

Myers, S. C. (1984). The Capital Structure Puzzle. *Journal of Finance, 39*(3), 575-592.

Myers, S. C., & Majluf, N. (1984). Corporate Financing and Investment Decisions When Firms have Information that Investors Do Not Have. *Journal of Financial Economics, 13*, 187-221.

Myers, S. C., & Majluf, N. S. (1994). Financing and Investment Decisions When Firms have Information that Investors do not have. *Journal of Financial Economics, 13*, 187-221.

Naceur, S., Goaied, M., & Belanes, A. (2006). On the Determinants and Dynamics of Dividend Policy. *International Review of Finance, 6*(1), 1-23.

Nairobi Securities Exchange. (2020, May 28). *https://www.nse.co.ke/regulatory-framework/regulatory-framework/policy-guidance-notes.html.* Retrieved from www.nse.co.ke: http://www.nse.co.ke

Ndungu, A. (2009). Determinants of dividend policy: Evidence from the Nairobi Stock Exchange. *Unpublished MBA Project*.

Njuguna, M. I., & Jagongo, A. (2015). Factors Considered in Dividend Payout Decisions - The Case For Listed Companies in Kenya. *Research Journal of Finance and Accounting, 6*(13), 68-74.

Odah, M. H., Bahr, K. M., & Sadig, M. B. (2018). Tobit Regression Model to Determine the Dividend Yield in Iraq. *3rd Central & Eastern European LUMEN International Conference* (pp. 340-347). Chisinau: New Approaches in Social and Humanistic Sciences. Retrieved from https://www.researchgate.net/publication/323857678

Odawo, C., & Ntoiti, J. (2015). Determinants of Dividend Payout Policy in Public Ltd Banks in Kenya: A Case Study of CFC Stanbic Bank. *Strategic Journal of Business and Change Management, 2*(54), 182-191.

Odinya, F. A., & Barasa, J. (2018). The Effect of Dividend Policy on the Value of Firms Listed at the Nairobi Securities Exchange. *African development finance journal, 2*(1), 134-145.

Okwo, I. M., Enekwe, C. I., & Ugwunta, D. O. (2012). Financial Management as a Determinant of Profitabilty: A Study of Selected Phamaceutical Firms in Nigeria. *European Journal of Business and Management, 4*(20), 28-36.

Pandey, I. M. (2003). Corporate Dividend Policy And Behaviour: The Malaysian Evidence. *Asian Academy of Management Journal, 8*(1), 17–32.

Pandey, I. M. (2005). *Financial Management* (10th ed.). Vikas Publishing House.

Pettit, R. R. (1977). Taxes, Transactions costs and the Clientele Effect of Dividends. *Journal of Financial Economics, 5*, 419-436.

Polit, D. F., & Beck, C. T. (2013). *Essentials of Nursing Research: Appraising Evidence for Nursing Practice* (8th ed.). Philadelphia: Lippincott Williams & Wilkins.

Roberto, M. A. (2002). Making Difficult Decisions in Turbulent Times: In their own way, Complexity and Ambiguity Tyrannize Decision-making. What Managers Need are Strategies for Making Clear, Accurate Judgments under Stressful Conditions. *Ivey Business Journal, 66*(3), 15-20.

Ross, S. (1977). The Determination of Financial Structure: The Incentive-Signalling Approach. *The Bell Journal of Economics, 8*(1), 23-40.

Rozeff, M. (1982). Growth, Beta and Agency Costs as Determinants of Dividend Payout Ratios. *Journal of Financial Research, 5*, 249-259.

Short, H., Zhang, H., & Keasey, K. (2002). The Link Between Dividend policy and Institutional Ownership. *Journal of Corporate Finance, 8*, 105-122.

Siboni, Z. M., & Pourali, M. R. (2015). The relationship between investment opportunity, dividend policy and company value in companies listed in TSE: Evidence from Iran. *European Online Journal of Natural and Social Sciences, 4*(1), 263-272.

Smith, C., & Watts, R. L. (1992). The Investment Opportunity Set and Corporate Financing, Dividend, and Compensation Policies. *Journal of Financial Economics,, 32*(3), 263-292.

Solomon, E. (1963). *The Theory of Financial Management.* Colombia University Press.

Suntraruk, P. (2014). Factors Influencing Dividend Payout in Thailand: A Tobit Regression Analysis. *International Journal of Accounting and Financial Reporting, 3*(2), 255-268.

Tiriongo, T. (2004). Dividend Policy Practices In Companies Listed At The Nairobi Stock Exchange (Nse). *Masters of business administration, University of Nairobi.* Retrieved from
http://erepository.uonbi.ac.ke:8080/xmlui/handle/123456789/22703

Tobin, J. (1958). Estimation of Relationships for Limited Dependent Variables. *Econometrica 26, 1*, 24-36.

APPENDICES

Appendix I: Companies Listed at the NSE by Sector as at December 2019

Agricultural	
Ticker	**Company Name**
EGAD	Eaagads Limited
KUKZ	Kakuzi Limited
KAPC	Kapchorua Tea Company Limited
LIMT	Limuru Tea Company Limited
SASN	Sasini Tea and Coffee
WTK	Williamson Tea Kenya Limited

Automobiles and Accessories	
Ticker	**Company Name**
G&G	Car & General Kenya

Banking	
Ticker	**Company Name**
BBK	Barclays Bank of Kenya
CFC	CfC Stanbic Holdings
DTK	Diamond Trust Bank Group
EQTY	Equity Group Holdings Limited
HFCK	Housing Finance Company of Kenya
I&M	I&M Holdings Limited
KCB	Kenya Commercial Bank Group
NBK	National Bank of Kenya
NIC	National Industrial Credit Bank
SCBK	Standard Chartered of Kenya
COOP	Cooperative Bank of Kenya

Commercial and Services	
Ticker	**Company Name**
XPRS	Express Kenya Limited
KQ	Kenya Airways
LKL	Longhorn Kenya Limited
EVRD	Eveready East Africa
SCAN	Scangroup
NMG	Nation Media Group
SGL	Standard Group Limited
FIRE	Sameer Africa Limited
TPSE	TPS Serena
UCHM	Uchumi Supermarkets

Construction and Allied

Ticker	Company Name
ARM	ARM Cement Limited
BAMB	Bamburi Cement Limited
BERG	Crown-Berger (Kenya)
CABL	East African Cables Limited
PORT	East Africa Portland Cement Company

Energy and Petroleum

Ticker	Company Name
KEGN	Kengen
KENO	KenolKobil
KPLC	Kenya Power and Lighting Company
TOTL	Total Kenya Limited
UMME	Umeme

Insurance Segment

Ticker	Company Name
BRIT	British-American Investments Company
CIC	CIC Insurance Group
CFCI	Liberty Kenya Holdings Limited
JUB	Jubilee Holdings Limited
KNRE	Kenya Reinsurance Corporation
PAFR	Sanlam Kenya Plc

Investments

Ticker	Company Name
ICDC	Centum Investment Company
OCH	Olympia Capital Holdings
HAFR	Home Afrika Ltd
TCL	TransCentury Investments

Investment Services

Ticker	Company Name
NSE	Nairobi Securities Exchange

Manufacturing and Allied	
Ticker	**Company Name**
BOC	BOC Kenya Limited
BAT	British American Tobacco Limited
CARB	Carbacid Investments Limited
EABL	East African Breweries
EVRD	Eveready East Africa
ORCH	Kenya Orchards Limited
MSC	Mumias Sugar Company Limited
UNGA	Unga Group
Telecommunication and Technology	
Ticker	**Company Name**
SCOM	Safaricom

Source: Nairobi Securities Exchange Website (2020)

Appendix II: Data Collection Form

Name of Company					
	Year				
Data	**2015**	**2016**	**2017**	**2018**	**2019**
Cash Dividends of Common Stock					
Net Income					
Minority Interest					
Cash Dividends of Preferred Stock					
Dividend Payout Ratio					
Net Income					
Total Assets					
Return on Assets					
Total Liabilities					
Total Common Equity					
Debt to Equity Ratio					
Net Sales					
Growth in Sales					

Appendix III: Research Data

		Year	Dividend Payout	Profitability	Leverage	Growth
1	BARCLAYS BANK OF KENYA (BBK)	2019	0.104167	0.019937	4.534379	0.234235
		2018	0.10989	0.022797	4.718474	0.126226
		2017	0.073529	0.025503	5.391105	0.12069
		2016	0.05988	0.028489	4.602224	0.150738
2	STANBIC HOLDINGS PLC	2019	0.064815	0.0211	5.894799	0.12900
		2018	0.074468	0.022164	6.867158	0.23424
		2017	0.074545	0.017325	6.444407	0.12623
		2016	0.007661	0.020582	6.262675	0.12069
3	DIAMOND TRUST BANK OF KENYA (DTK)	2019	0.013542	0.018822	10.55611	0.18501
		2018	0.022034	0.01875	7.285111	0.15384
		2017	0.013369	0.019061	5.76868	0.20030
		2016	0.011234	0.023558	8.552342	0.09324
4	EQUITY GROUP HOLDINGS (EQTY)	2019	0.050314	0.036169	1.871907	0.10429
		2018	0.066667	0.034574	3.175445	0.08641
		2017	0.05	0.036071	2.875418	0.15199
		2016	0.036	0.035048	3.460261	0.20897
5	I&M HOLDINGS LTD (I&M)	2019	0.058333	0.032635	5.698581	0.02909
		2018	0.079545	0.026355	3.381498	-0.21616
		2017	0.108	0.030254	1.838913	0.16631
		2016	0.0864	0.036858	2.29847	0.21607
6	KENYA COMMERCIAL BANK (KCB)	2019	0.070175	0.028006	4.740737	0.26022
		2018	0.104348	0.033592	5.231063	0.16204
		2017	0.045714	0.030472	4.125167	0.14300
		2016	0.035088	0.033134	5.657151	0.17358
7	NIC BANK (NIC)	2018	0.042301	0.020289	8.820969	0.09468

		2017	0.025432	0.020102	7.938933	0.11084
		2016	0.019131	0.025554	8.359618	0.23853
8	STANDARD CHARTERED BANK KENYA (SCBK)	2019	0.081731	0.027262	3.656897	0.12612
		2018	0.10582	0.028378	3.573626	0.14665
		2017	0.096866	0.024198	3.359809	0.11479
		2016	0.056385	0.036128	3.171086	-0.04432
9	COOPERATIVE BANK OF KENYA	2019	0.05	0.031315	3.926674	0.14665
		2018	0.072727	0.030779	3.652899	0.11479
		2017	0.053333	0.029481	4.068379	-0.04432
		2016	0.029994	0.03603	3.750327	-0.28075
10	TPS EASTERN AFRICA LTD (TPSE)	2019	0.010769	0.010105	0.327882	0.04272
		2018	0.017073	0.010172	0.203742	0.02018
		2017	0.01	0.006832	0.335613	0.03463
		2016	0.036486	0.007615	0.316024	-0.06161
11	WPP SCANGROUP LTD (SCAN)	2019	0.039474	0.038382	0.019954	0.08514
		2018	0.027548	0.035708	0.035014	0.07113
		2017	0.016667	0.037214	0.000427	0.05973
		2016	0.01105	0.030455	0.000346	0.02422
12	BAMBURI CEMENT LTD (BAMB)	2019	0.022222	0.007314	0.166487	0.01236
		2018	0.075	0.011359	0.148003	0.01189
		2017	0.074286	0.136983	0.124357	0.09897
		2016	0.086331	0.086913	0.09669	0.06108
13	CROWN PAINTS KENYA LTD (BERG)	2018	0.014286	0.031872	0.110444	0.03065
		2017	0.009836	0.039115	0.05043	0.04033
		2016	0.047297	0.04614	0.048765	0.07808
14	TOTAL KENYA LTD (TOTL)	2019	0.055319	0.067471	0.056583	0.13358
		2018	0.062353	0.058906	0.030279	0.18509

		2017	0.042192	0.072035	0.035231	0.20877
		2016	0.029167	0.061746	0.03942	0.14057
15	BRITISH AMERICAN INVESTMENTS CO (KENYA) (BRIT)	2019	0.026217	0.178059	0.085276	0.08063
		2018	0.03	0.222672	0.176515	0.13397
		2017	0.023077	0.187774	0.505634	0.14459
		2016	0.010084	0.262205	0.505749	-45.94726
16	CIC INSURANCE GROUP LTD (CIC)	2019	0.021429	0.012885	0	-0.04152
		2018	0.028947	0.023072	0.022845	0.27749
		2017	0.017742	0.011574	0	0.13012
		2016	0.010417	-0.00154	0	-0.15391
17	JUBILEE HOLDINGS LTD (JUB)	2019	0.018036	0.030887	0	-0.62482
		2018	0.019082	0.036145	0.025165	0.01327
		2017	0.019318	0.042704	0.018126	0.01767
		2016	0.022856	0.040588	0	0.00317
18	KENYA REINSURANCE CORP (KNRE)	2019	0.187638	0.047591	0	0.07952
		2018	0.142096	0.039739	0	0.10321
		2017	0.142857	0.041254	0	0.08912
		2016	0.164319	0.073192	0	0.07046
19	LIBERTY KENYA HOLDINGS (CFCI)	2019	0.040984	0.019371	0	-0.08759
		2018	0	0.015023	0	0.01827
		2017	0	0.018173	0	0.12795
		2016	0.017204	0.017979	0	-0.04006
20	CENTUM INVESTMENT LTD (ICDC)	2019	0.026966	0.040488	2.556622	-1.22041
		2018	0.034783	0.028995	2.332024	-0.31979
		2017	0.021739	0.094023	1.336561	-0.34640
		2016	0	0.127446	1.413216	-0.37022
21	B.O.C KENYA LTD (BOC)	2019	0.048598	0.010753	0.00329	0.01780

		2018	0.063415	0.01509	0	0.00937
		2017	0.05098	0.010394	0	0.02707
		2016	0.0416	0.034569	0.000119	0.03089
22	Eaagads Ltd	2019	0.056579	0.002809	0.079529	-0.13409
		2018	0.047305	-0.06902	0.084089	2.01876
		2017	0.063185	0.022757	0.084795	0.05044
		2016	0.046806	0.048482	0.107031	0.00107
23	EAST AFRICAN BREWERIES LTD (EABL)	2019	0.028958	0.132258	0.427858	0.02971
		2018	0.026978	0.089695	0.474562	0.03283
		2017	0.024671	0.115889	0.490414	0.04521
		2016	0.019435	0.164179	0.434789	0.03163
24	UNGA GROUP LTD (UNGA)	2019	0.033058	0.051175	0.110562	0.30048
		2018	0.029412	0.078851	0.12525	-0.00220
		2017	0.02139	-0.00074	0.085452	0.21428
		2016	0.023077	0.060925	0.116286	0.51349
25	CARBACID INVESTMENTS LTD (CARB)	2019	0.053435	0.077741	0.059231	0.13326
		2018	0.047297	0.086553	0.063483	0.07407
		2017	0.041298	0.100244	0.070971	0.06991
		2016	0.025225	0.121868	0.077857	0.04781
26	SAFARICOM LTD (SCOM)	2019	0.035484	0.324669	0.009715	0.06216
		2018	0.053889	0.330204	0	0.04520
		2017	0.04497	0.299616	0	0.04966
		2016	0.037537	0.239375	0	0.04880
27	KAKUZI LIMITED (KAKZ)	2019	0.0213	0.110422	0.155865	0.10706
		2018	0.0194	0.081575	0.148392	0.07976
		2017	0.0158	0.103266	0.140476	0.09202
		2016	0.0208	0.112226	0.158245	0.09384

28	SASINI LTD	2019	0.03774	0.126761	0.091705	0.06654
		2018	0.0831	0.023298	0.090925	0.04654
		2017	0.07645	0.023726	0.089133	0.17643
		2016	0.01724	0.045933	0.069817	0.21863
29	LONGHORN PUBLISHERS	2019	0.08333	0.075722	0	0.07820
		2018	0.05941	0.071833	0	0.08988
		2017	0.0614	0.063821	0	0.00750
		2016	0.0216	0.053996	0	0.00705
30	NATION MEDIA GROUP	2019	0.08621	0.071309	0.059975	0.08182
		2018	0.1075	0.094365	0.002679	0.06177
		2017	0.0524	0.119334	0.002288	0.09323
		2016	0.03802	0.134277	0.001249	0.05751