# IMPACT OF OWNERHSHIP STRUCTURE ON DIVIDEND POLICY OF LISTED BANKS IN KENYA

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I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the Research Proposal contains no material previously published or written by another person except where due reference is made in the Research Proposal itself.

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This Research Proposal has been submitted for examination with my approval as the Supervisor.

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*ABSTRACT*

*This study examines the effect of ownership structure of listed banks in Kenya on their dividend payout policy. The theoretical framework of this study is based on dividend relevance theory, dividend irrelevance theory and agency theory. The study explains ownership types such as: government ownership, institutional ownership, family ownership, foreign ownership and managerial ownership in relation to the impact they have on the dividend policy of listed banks in Kenya.*

*The relationship between dividend payout ratios will be tested against ownership structures with control variables like return on assets, price to book value, size of the firm, age of the firm and debt to equity ratio being used. Past studies in Kenya have not addressed the impact ownership structure has on dividend payout policy of listed banks in Kenya. Since most portfolio managers use bank stocks to get exposure to a market, thus bank stocks are in high demand, this provides incentive to focus on banking sector in Kenya. Findings of the study could be used by investors and owners of banks to better their understanding of dividend payout policies and investor decisions.*

***KEY WORDS: Ownership structure, divined payout, dividend yield, banks, Kenya.***

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# INTRODUCTION

## Background

Dividend payment policy is especially important in corporate governance. Why do firms pay dividends? The answer to this question has paved way for numerous research studies all around the world. This has had an impact on the shareholders of companies, reinvestment opportunities, growth and valuation of companies, agency relationships, and corporate governance. Dividend payout policy is a common and useful tool in reducing the conflict of interests between the shareholders and managers (Jensen G. G., 1992)because on one hand shareholders are interested in getting dividends while managers seek to retain and reinvest earnings. Hence the question, what is the effect of ownership structure on dividend payout policy of a bank is and its significance

Moreover, ownership structure is of great importance in any organization. This particularly so because power lies within ownership. Ownership structure is defined by distribution of equity with regard to votes and capital, but also by the identity of equity owners. The distribution of ownership in a bank structure has major importance in corporate governance because it determines the incentives of managers and they manage the economic efficiency of the corporations. (Meckling, 1976).

Through corporate governance, the shareholder aims to maximize value by ensuring that corporate policies are in favor of their interests; as stated earlier, ownership as a shareholder is an instrument of power. From this very fact, stems the agency-principal conflict. The challenge for directors and managers then becomes whether the profit an institution earns should be distributed in form of dividends to shareholders or retained as investments for the institution. Dividend payment is necessary for both managerial personnel and investors, as managers have to decide about the amount and timing and investors have to decide for making decision on their investment portfolio. (Ilyal, Hider, & Haq, 2016)

(Jensen, 1986) And (Rozeff, 1982)argued that firms can alleviate agency problems using dividend payout policy. In addition (Rozeff, 1982) model of optimal level of dividends,

argues that the optimal level of dividends is a trade-off between higher dividends which lowers agency costs. According to them, if dividends are not paid to shareholders, managers will capitalize on the profits generated for their private benefits. Dividend policy assists companies to identify how they can control agency costs by handling dividend policy. (Jensen, 1986) Argued that by paying dividends to the shareholders, the managerial control over the resources would reduce. (Stouraitis & Wu, 2004) Suggested that the dividend could be used to squeeze the overinvestment problems of corporations.

However, the importance of dividend payout policy is not limited to reducing agency costs only; it plays a big role in informing investor decisions thus the Signaling effect. An announcement of an increase in dividend payout is taken very positively in the market as it is taken to be an indication of better growth and stability in the future. Thus the dividends paid per share can give information to shareholders and investors on the firm's valuation. Dividend payout policy can be influenced by ownership structures of a firm. Consequently, this study seeks to investigate what impact the ownership structure of listed banks in Kenya have on their dividend payout policy. (Carvalhal-da-Silva & Leal, 2004) Contended that ownership structure is a crucial and fundamental factor in determining the efficiency of the market by providing more information about the extent of risk diversification of shareholders and the occurring agency problems.

This research will link the bank's dividend payout policies with ownership structure of the listed banks in Kenya by providing statistical evidence. Listed banks in Kenya have various types of ownership in their governance. As a result, this study will focus on particular forms of ownership which include: institutional ownership, foreign ownership and government ownership. The purpose of the paper is to identify the relationship between dividend policy and managerial ownership, institutional ownership, foreign ownership and government ownership from published financial statements and annual reports of Kenyan banks. Narrowing down the study to the banking sector will prove to be different because not only has it been conducted mostly in developed countries but also there has not been an identical research study done in Kenya.

The choice of having listed banks as the sample of study for this research was influenced by the fact that banks in Kenya are an important sector that provides a critical service of financing enterprises and transforming risk. Every single industry in the country is linked by the banking system. Therefore it only seems logical to have banks as the representation of other sectors in the country; furthermore, the required data from this banks is available following the banking regulations in Kenya.

The paper has been divided in to various parts. The chapter one introduces the topic, the objectives and the relevance of the topic. Chapter two, part gives a framework of the topic based on past literature and studies done on the subject. Past studies have contented different hypotheses and developed these hypotheses based on different theories and empirical researches. Chapter three explains the methodology of the study explaining the sample size, data collection methodology, models and variables definition. Chapter four explains the analysis of the research data where descriptive statistics tests, correlation tests, Tobit and logit regression tests have used. In the last chapters, the conclusion and recommendation have been provided.

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**Problem Statement**

In the Kenyan market, there are institutional investors and individual investors who invest in banking stocks with a need for dividends. However some of these investors may not have a direct impact on how the dividend policy of their respective bank is set; instead, it is the major shareholders who own the bank that have the controlling power to alter dividend policy. In addition, many portfolio managers use banking stocks to get market exposure to sectors that do not have a direct route for exposure. It is therefore important to establish to what extent ownership structure affects dividend policy; the major shareholders have the power and intent to design the dividend policy in such a manner that it favors their interests most.

This research will establish the impact the different ownership types of listed banks have on their dividend policies, which is still unexplored in the emerging Kenyan market. The results obtained will be useful for different investors depending on their investor needs and help bank stakeholders better understand the dynamics of dividend policy in banks.

**Research objectives**

1. Investigate whether there is a positive or negative relationship between ownership structure and dividend payout ratio of listed banks in Kenya.

**Research question**

1. What impact does ownership structure have on dividend policy of listed banks in Kenya?

**Hypotheses**

$H1_0$: There exists a negative relationship between foreign ownership and dividend policy of banks.

$H1_a$: There does not exist a negative relationship between foreign ownership and dividend policy of banks.

$H2_0$: There exists a negative relationship between managerial ownership and dividend policy of banks.

$H2_a$: There does not exist a negative relationship between managerial ownership and dividend policy of banks.

$H3_0$: There exists a positive relationship between government ownership and dividend policy of banks.

$H3_a$: There does not exist a positive relationship between government ownership and dividend policy of banks.

$H4_0$: There exists a positive relationship between institutional ownership and dividend policy of banks.

$H4_a$: There does not exist a positive relationship between institutional ownership and dividend policy of banks.

**Significance of the study**

This study seeks to investigate how significant ownership structure is to the dividend policy of banks. Similar studies have almost exclusively been conducted in developing countries. The information from this study could be of great use to investors as well as current bank owners in an effort to comprehend and enhance their dividend payout policies and financing decisions. The results obtained will be useful to the aforementioned institutional and individual investors in future to identify banks with a higher risk of susceptibility to conflicts of interest and agency costs and how this might significantly affect their liquidity needs. Moreover, the presence of government ownership may loosen or tighten dividend policy and the natural high leverage of banks suggests a high dividend payout as owners have a smaller stake in overall operations.

**Contribution and target audience**

Furthermore, this study also aims to make more theoretical contributions to the field of finance research since almost but not all previous research on the same has been carried out in developed countries outside Africa. There appears to be no consistent relationship between the ownership structure and dividend policies in the findings of previous studies in the wide range of frameworks they have been conducted in. By exploring this field in the banking sector in Kenya, the inferences of this study will be of importance for further research to draw comparisons with results from other studies on the topic, in different geographical, economic and political settings. As a result, this paper is directed primarily at a Kenyan and international audience within the finance research field as well as managers and stakeholders in banks.

## LITERATURE REVIEW

### Introduction

This section seeks to develop the research hypothesis and gives a further understanding of the field of study under which the topic lies. This includes the main theories and pillar stones related to dividends and dividend policies of banks as well as ownership structure. The main theories discussed in this section for dividends are the irrelevance and relevance theory, agency theory, dividend signaling and the underpinning of banks in Kenya. For ownership structure, banks in Kenya are grouped into different categories according the majority shareholder; a conceptual framework will be offered to give more insight.

### Dividends and dividend theories

Earnings distributed to shareholders are called dividends (M, 2004). In Kenya, among other factors shareholders and the board of directors devise the dividend policies of banks; therefore, they have the power to increase the amount of dividend as declared by directors or to reduce. Profits made by corporation like a bank can either be reinvested into acquiring more depositors or be distributed as dividend to stockholders. Each bank formulates its own policies as regards dividend. This mostly is determined by many factors and conditions prevailing during that period. Many corporations retain part of their earnings for capitalization purpose while pay the remainder as dividend. Researchers have provided considerable attention and thought to solve dividend puzzle resulting in number of conflicting hypothesis theories and explanations (Al-Kuwari, 2009). Most researchers have focused on developed markets like the USA, Britain, Japan etc. with little or no attention placed on developing or less developed economies.

The findings of the developed economies may not be directly applied to developing economies like Kenya due to differences in regulations, culture environment and nature of investors. Many dividend theories have been advanced and tend to explain how dividend decisions are arrived at and whether they have an impact on the value of a firm.

**Dividend irrelevance theory**

Relevance on dividends' effect on firm value has been an issue of contention among scholars since the research in the field commenced. The theories on dividend policy has essentially two opposing schools of thought: on one hand, the thought that dividend policy is irrelevant to the value of the firm and on the other hand, that it is indeed relevant. The dividend irrelevancy theory's main advocates are also its founders, Franco Modigliani and Merton Miller. (Miller, 1961) Theorized and modelled that investors' valuation of a firm should be unaffected by and irrespective of its dividend policy under the following assumptions:

1. Perfect capital markets where no single investor is large enough to affect the equilibrium by trading, there is no difference in taxation between capital gains and dividends, all investors have equal and costless access to information and there are no transaction costs.
2. Rational behavior where investors will always choose the option that maximizes their wealth and have no preference for earnings distributed either as cash dividends or capital gains.
3. Perfect certainty where all investors have full assurance of the future investment policy as well as future profits of every corporation. Due to this assumption, there is no need to distinguish between stocks and bonds as sources of funds.
4. Should firms have paid too much in dividends, they can raise new capital by issuing new stock with no cost.

**Dividend relevance theory**

The main opponents of the dividend irrelevance theory argue that the assumptions made in the dividend irrelevance theory are too unrealistic. Such ideality cannot exist in the real markets. According to this line of thought, there are in reality no circumstances under which assumptions such as a world free of taxes and transaction costs, perfect information is available to everyone, where all investors behave rationally and in the same manner and so forth, exists. Therefore, Miller & Modigliani's theory of dividend

irrelevance has no practical relevance since it cannot occur. The main schools of thought were developed by (Lintner J. , 1962), (Gordon, 1963) and (JE, 1963)in response to Miller & Modigliani's findings.

The bird-in-the-hand theory was developed by (Lintner J. , 1962) and (Gordon, 1963)independently of each other but both arrived at the same results. The theory contends that, dividends are relevant because some investors prefer dividends over capital gains. This is because dividends generate definite cash returns today while capital gains are generated over a longer period of time in the future and can be unpredictable. This theory also takes taxes into consideration and states that taxes have implications on dividend policy. On one hand, dividends and capital gains are taxed differently in some countries (this is the case in Kenya) which may affect dividend policy. On the other hand, capital gains allows the individual investor to defer capital gains tax to another desired period. This is not possible for dividends, as the dividend policy is controlled by the company and taxes need to be paid for the period in which dividends are received. According to this line of thought, the yield of a stock has an inverse relationship to the dividend payout ratio in relatively higher dividend payouts. However, investors prefer dividends over capital gains and thus a trade-off arises in regard to dividend yield.

(JE, 1963) Refined the dividend relevance theory further by creating a model which states that dividends are relevant to the value of a firm. In his model, the important factor is the rate at which the investor can reinvest the dividends paid in relation to the return that the firm can generate on retained earnings. If the investors' reinvestment rate is higher than the return rate of the projects in which the firm can reinvest the retained earnings, the firm should distribute all its earnings as dividends.

**Underpinning of Banks in Kenya**

After independence (1963), the number of commercial banks operating in Kenya increased as both local and foreign owned banks entered the banking scene. These banks basically make money by lending money at rates higher than the money they pay

back to their depositors. More specifically, banks collect interest on loans and interest payments from the debt securities they own, and pay interest on deposits and short-term borrowings. Therefore, depositors are fundamental for the successful operation of banks. This begs the question, to whom should more importance be given, stakeholders like depositors or shareholders?

Who owns the banks in Kenya? The Banking Act imposes single shareholder limits such that no one is permitted to hold, directly or indirectly, or otherwise have a beneficial interest in more than 25% of the share capital of any banking institution. However, these restrictions do not apply to:

- Other banking institution.
- The Kenyan government or the government of a foreign owned state.
- A state corporation within the meaning of the state corporations act.
- A foreign company licensed to carry on the business of a banking institution in its corporation.

The framework below provides an illustration of ownership of banks in Kenya with respect to shareholders. In addition, a shareholder with more than 5% of the share capital of a bank is not permitted to be an executive director or form part of the management of an institution.

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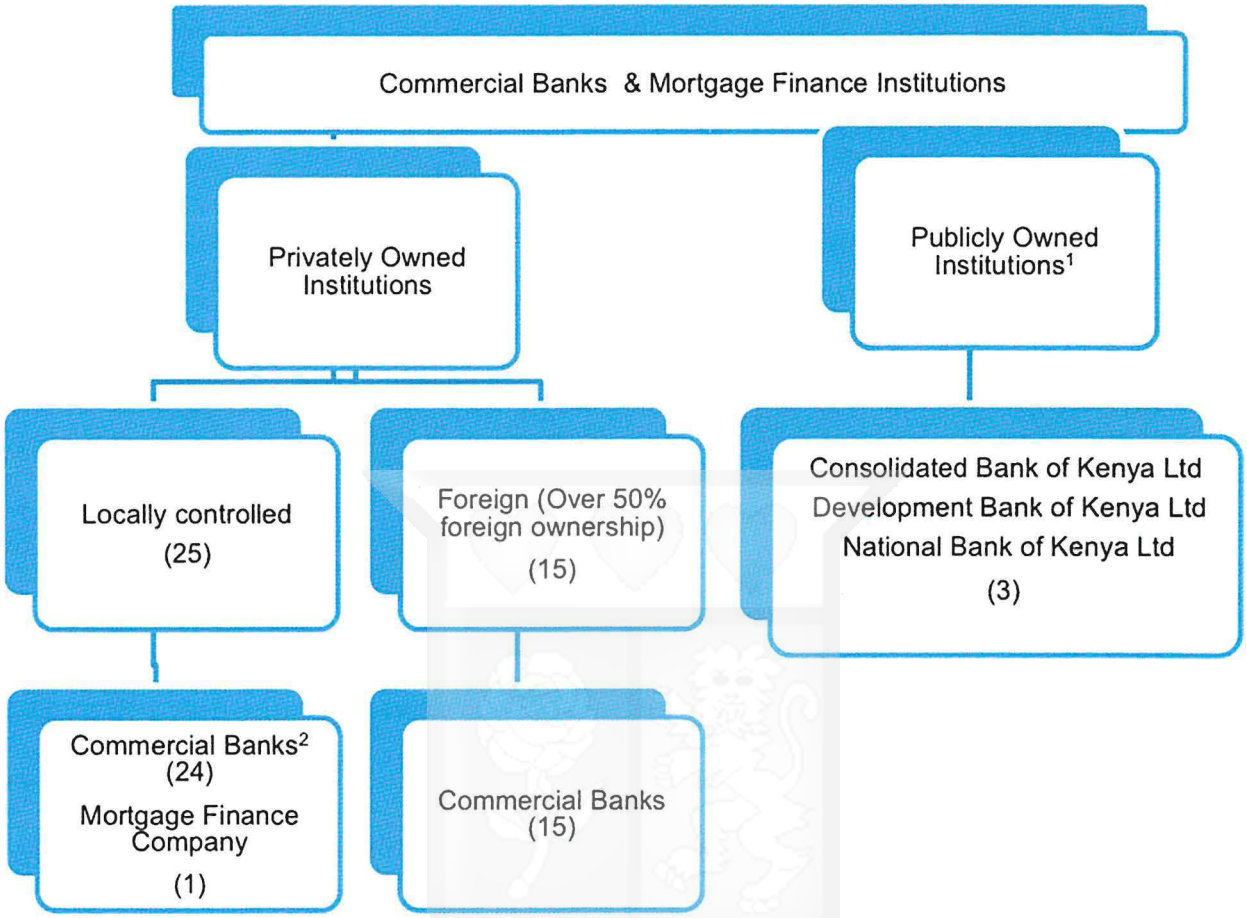


*Source: Central Bank of Kenya*

Prior to 2015, Kenya's banking sector was observed as a vibrant, highly profitable sector, with industry Return on Equity's averaging north of 20%. Sector loan book grew at an impressive CAGR of 16% between 2011 to 2015 on the back of high economic growth and low financial inclusion. As at 2015, Kenya's private sector credit to GDP was 35%, lower than Sub-Saharan Africa's average of 46% and the global average of 129% (Cytonn, 2016). The sector was also characterized by increased adoption of technology and usage of alternative channels which enabled aggressive banks to tap into the unbanked population efficiently, thereby boosting margins and overall profitability.

Considering low rates of financial inclusion, the sector's potential to grow remains high. However, following various developments in the banking sector over the past two years, expectations on the future outlook of the sector have also changed much. Following the changes In Central Bank leadership mid-2015, the sector has seen 3 banks collapse which resulted to low consumer confidence in the sector and overall strength of the sector. This deteriorated further after the introduction of the interest rate cap in August 2016, which is expected to lower interest margins and result in slower credit growth. Non-performing loans have also increased across the sector from an industry average of 5.2% before 2015 to an average of 7.9% as at September 2016, mainly attributed to a challenging business environment and enhanced supervision by the Central Bank. Consequently, banking sector valuations have gone down significantly, with industry P/B declining from 1.9x as at the end of 2014 to 0.8x as at the end of January 2017. (Cytonn, 2016)

These factors make the banking sector industry in Kenya a point of interest. Should banks focus more on pleasing the main stakeholders (depositors) by reinvesting profits for more growth or the shareholders by issuing dividends? What influence do the shareholders have on creating the dividend policy of a bank? In an effort to answer this questions and achieve the perfect balance, agency conflicts arise between managers and shareholders of these banks. Hence the importance of the agency theory and dividend signaling theory.

**Agency theory**

The dividend irrelevance theory indicates that the managers and shareholders are without any conflicts, however, this statement can be questioned since the owners and management are separate entities. The conflict arises when managers and the shareholders act in their own interest without considering the other part in the conflict. Managers may not always adopt a dividend policy that is value-maximizing for shareholders but would choose a dividend policy that maximizes their own private benefits. Therefore, the relevance of agency costs incurred by shareholders is necessary in order to monitor the behavior of the managers and is an implied cost related to the conflict of interest between shareholders and managers. The decision to pay out

dividends can reduce this types of conflicts and also the agency problem by restricting the available conditional funds to managers (Rozeff, 1982).

In order to examine the agency problem effects on dividend policy, (La Porta, 2000) created two agency models of dividends. The first considers the possibility that dividend payout is a result of efficient legal protection, especially for shareholders, which allow small shareholders to obtain dividend payments from the firms insiders. The second model contends that dividends is a replacement of effective legal protection which increases the reputation of the firm when it comes to treating investors in environments that are highly unprotected. This is done by using different dividend policies (La Porta, 2000)

**Dividend signaling theory**

Dividends have been proven to be a strong indicator of firm management's views of the firm's future prospects and thus convey information to investors. The Miller & Modigliani theorem does not hold in reality since the assumptions made in the model are too unrealistic. (Lintner J. , 1956)Presented an alternative approach to the dividend irrelevance theory where the assumption that all investors have perfect access to all information was relaxed and thus that managers possess inside information. He found that firms are reluctant to change dividend policies unless they are certain that the new level is sustainable over a longer time horizon. Firms are reluctant to reduce their dividends as this signals that managers perceive the future prospects to be poor which will have a negative impact on investors' valuation, i.e. the share price, of the firm. Reversely, increasing dividends signals that managers expect a positive shift in longer term earnings. As a result, common practice among firms is to smooth dividend payouts over time and thus decrease the volatility of dividends, thereby limiting shocks to the share price caused by dividend announcements. (Michaely, 2006)Studied the reasons behind why firms follow this behavior and found that public firms were more prone to smoothing dividends than private firms. They concluded that the reason behind this was related to the scrutiny of public capital markets and traditional financial frictions

(Michaely, 2006) and (Ross, 1997) also found that managerial incentive schedules and decisions on financial structure signal information to investors about the managers' perceptions of the firm's future prospects. The author also found that leverage increases the value of firms, since the market's perception of value is increased by leverage.

**Hypothesis development: Ownership structure's effect on dividends**

More modern research have assessed the effect that ownership structure has on dividend payments mostly to companies on general without narrowing down to banks, but in different geographical settings. Despite the uniqueness of the banking sector in terms of its importance and its ultimate product i.e. money, there is a lacking of extensive research in the banking sector in Kenya; its operations, its drivers and the power play within. This further justifies the need for deeper insight on the ownership structures of banks in Kenya and the link between that and dividend policy.

The main findings of past studies are presented here. It becomes clear that there is no distinct consensus among these studies.

(Thanatawee, 2012) Studied ownership structure's impact on dividends among companies in China. The findings indicate that ownership by the largest shareholder, ownership concentration and government ownership increase the probability of dividend payments while institutional ownership decreases the probability of dividend payments. Ownership by the largest shareholder, ownership concentration and government ownership increase the magnitude of dividends while ownership by institutional ownership and foreign investors decrease the magnitude of dividends (Thanatawee, 2012).

(Thanatawee, 2012) Also made a similar study but in the setting of Thailand. The findings suggest that higher ownership concentration and when the largest shareholder is an institution increases the probability of dividend payments. The findings also suggest a positive relationship between the size of the share held by institutional investors and the

magnitude of dividends. Both the likelihood and the magnitude of dividends paid increase (decrease) with higher institutional (individual) ownership (Thanatawee, 2012).

In Iran, (Mehrani, 2011)findings indicate that institutional ownership, in general, has a negative associated with distributed dividends. However, as institutional ownership gets concentrated, the relationship gets inverted to a positive one. They found no statistically significant evidence to suggest that managerial ownership had any association with distributed dividends (Mehrani, 2011).

(Afza, 2010) Presents a study which is investigated "Ownership Structure and Cash Flows as Determinants of Corporate Dividend Policy in Pakistan" Three years data (2005-2007) of 100 companies listed at Karachi Stock Exchange (KSE) has been analyzed. By using OLS regression model managerial and individual ownership, cash flow sensitivity, size and leverage are negative effect and operating cash-flow and profitability are positively related to cash dividend (Afza, 2010).

In the same context, (Ullah H. F., 2012) conduct a study "The Impact of Ownership Structure on Dividend Policy Evidence from Emerging Markets KSE-100 Index Pakistan" to study investigates the determinants of the corporate dividend policy in the context of agency relation. Stepwise multiple regressions used to check the different variables of ownership with relation to the dividend payout policy. The study tells us that there is negative relationship between the managerial ownership and the dividend payout policy that cause the agency problem. Where there has positive relationship between the institutional and foreign share ownership suggested that the higher has their shareholdings the higher will be the firm dividend payouts.

(Ramli, 2010) Conducts a study of "Ownership Structure and Dividend Policy: Evidence from Malaysian Companies". The study finds that the largest shareholder or a shareholder group owns around 40 percent of the company paid-up capital. Tobit regression results suggest if there is control of shareholder it influence thed dividend policy of Malaysian companies. If the shareholding higher the dividend issd also high.

But if the second ownership of shareholder is high it is also effect a positive impact on dividend payout policy (Ramli, 2010)

Due to the in extensive research done on the impact of ownership structure on the dividend policy of banks in Kenya, this creates a huge gap that this study seeks to fill in the context of the Kenyan banking sector.

**Research gap**

The study to investigate the relationship between the ownership structures of banks has been carried out in the world and varying results have been obtained. While several similar studies have been conducted in mainly developing countries and different geographical settings, such as China (Thanatawee, 2014), Jordan (Warrad, Abed, Khriasat, & Al-Sheikh, 2012), India ( (Kumar, 2006), Iran (Mehrani, Moradi, & Eskandar, 2011), Italy (Mancinelli & Ozkan, 2006), and Pakistan (Ullah, 2012).

In their study (Björn & Lantz, 2016)reveal institutions to be the ownership type to have the strongest positive influence on dividend yield, followed by sovereign wealth funds and banks and trusts. (B Al-Najjar, 2015) Presents consistent evidence that increasing ownership of foreign investors and the state in general reduces the need for paying dividends in the Turkish market.

However in Kenya, previous studies that stood out were by (Ntoiti, 2013) who studied the relationship between ownership structures and dividend policy in the oil marketing industry in Kenya; she narrowed her research down to the oils sector. In addition, (Gitundu, Kiprop, Kibet, & E., 2016) took a different approach and investigated the influence of ownership structure on financial performance of privatized companies in Kenya. However, research focusing specifically on the banking sector is yet to be carried out in Kenya. This is driven by the fact that owners of the banks may influence the setting of dividend policy in an effort to ensure that the policy is in their best interest. Because of this it is important to know to what extent the extent to which owners will affect the dividend policy and whether this effect is negative or positive. In addition, most portfolio

managers use bank stocks to get exposure to a market, meaning that bank stocks are in high demand. The banking sector has become a crucial element of the economy in Kenya due to the recent interest rate cap, stricter banking regulations and increased financial inclusion amongst Kenyans. With the banking sector growth and expansion in Kenya, it is therefore crucial to know how the ownership structures of these banks influences their dividend payout policy.

## METHODOLOGY

### Research design

This study aimed at establishing how the ownership structure of listed banks in Kenya impacts on their dividend policy between the years 2006-2016. The study adopted a correlation design. A correlation analysis is concerned with how one variable or many variables is/are responsible for changes in another variable. This relationship will be tested using a panel data analysis. A correlation analysis fits best as it helps in answering the question this research seeks to answer which is by how much does the dividend policy of banks changes due to the ownership structure.

### Population and sample of study

The study places specific focus on the banking sector in Kenya. The population is the 42 commercial banks; among which 12 are listed on the NSE and 30 none listed. The samples that were considered in the data analysis include the 12 listed banks, I&M bank was removed from the study sample because of missing data. This is because most investors invest and/or will invest in banking stocks listed on the exchange. In addition, their data is available.

### Data sources

The data required includes but is not limited to financial statements and annual reports of listed banks in Kenya. This data is collected from Bloomberg, Capital Markets Authority and individual bank websites. The data collected is yearly and runs from 2006-2016, this period is significant as it captures the effects of the 2007 financial crisis and 2016 interest rate cap in Kenya.

**Variable description and measure.**

Dividend payout ratio is an indicator of a company's ability to distribute dividends consistently in the future as it is highly connected to the company's cash flow. Dividend payout ratio is used to proxy for the dependent variable as described below:

| Variable | Description |
|---|---|
| DPOUT | Intensity of dividend paid; calculated as dividends per share divided by earnings per share. |

*Table 0-1: Dependent variables*

The following explanatory variables are used as the independent variables in the multivariate analysis: managerial ownership (MGRL), institutional ownership (INST), foreign ownership (FOREIGN), government ownership (GOVT) and other (OTHER).

| Variable | Description |
|---|---|
| MGRL | Measured as the percentage of shares of the bank held by managers, executives, directors and their families. |
| INST | Measured as the percentage of shares of the bank held by the central government in Kenya. |
| FOREIGN | Measured as the percentage of shares of the bank held by foreign corporations, foreign financial institutions and foreign nationals. |
| GOVT | Measured as percentage of shares of the bank held by financial institutions such as banks, pension funds, investment trusts and insurers. |
| OTHER | Measured as percentage of shares of the bank held by other investors apart from those already listed above. |

*Table 0-2: Independent variables*

Control variables incorporated in the model are return on assets (ROA), bank's market to book ratio (M/B), return on equity (ROE), return on capital (ROC) and firm size (GRATE).

**Working hypotheses**

1. There is a negative relationship between foreign ownership and dividend payout of listed banks.
2. There is a negative relationship between managerial ownership and dividend payout of listed banks.
3. There is a positive relationship between government ownership and dividend payout of banks.
4. There is a positive relationship between institutional ownership and dividend payout of banks.
5. There is a positive relationship between other relationship and dividend payout of banks.

**Model Specification**

Since the data being tested is panel data. The study uses a panel data analysis to investigate the relationship between the dependent variable and the independent variable while controlling for some variables.

**Hausman Testing**

Hausman test tests whether there is a significant difference between the fixed and random effects estimators. The random effects estimator is more efficient so we need to use it if the Hausman test supports it. If it does not support it, use the fixed effects model. The Hausman test statistic can be calculated only for the time-varying regressors.

It represents the chi-square distributed with degrees of freedom equal to the number of parameters for the time-varying regressors. If the Hausman test is insignificant use the random effects. If the Hausman test is significant use the fixed effects.

## EMPIRICAL ANALYSIS

### Introduction

This section focuses solely on data analysis, presentation and interpretation. The analysis section consists of the descriptive statistics of the different variables used in study, the correlation analysis of the ownership and control variables and the last section includes the Hausman test and the results of the fixed effects model.

### Descriptive statistics

| *Variable* | | *Mean* | *Std dev* | *Min* | *Max* | *Observation* |
|---|---|---|---|---|---|---|
| *Banknum* | *Overall* | *5.5* | *2.886751* | *1* | *10* | *N=100* |
| | *Between* | | *3.02765* | *1* | *10* | *n=10* |
| | *Within* | | *0* | *5.5* | *5.5* | *T=10* |
| *LNDPOUT* | *Overall* | *3.359605* | *0.7179029* | *1.89385* | *4.609352* | *N=100* |
| | *Between* | | *0.7075027* | *2.082485* | *4.201351* | *N=10* |
| | *Within* | | *0.320958* | *2.110691* | *4.243045* | *T-bar=10* |
| *INST* | *Overall* | *0.2889034* | *0.2466652* | *0.0201* | *0.8104* | *N=100* |
| | *Between* | | *0.2512655* | *0.035244* | *0.75975* | *n=10* |
| | *Within* | | *0.058727* | *0.1282834* | *0.5226834* | *T=10* |
| *MGRL* | *Overall* | *0.341565* | *0.2804248* | *0.0056* | *0.7389* | *N=100* |
| | *Between* | | *0.2930132* | *0.00884* | *0.73862* | *n=10* |
| | *Within* | | *0.0242174* | *0.287495* | *0.434185* | *T=10* |
| *FRGN* | *Overall* | *0.074256* | *0.1079579* | *0* | *0.3301* | *N=100* |
| | *Between* | | *0.0995642* | *0* | *0.24879* | *n=10* |
| | *Within* | | *0.0514108* | *-0.141534* | *0.225146* | *T=10* |
| *GOVT* | *Overall* | *0.05362* | *0.108374* | *0* | *0.732* | *N=100* |
| | *Between* | | *0.0888944* | *0* | *0.225* | *n=10* |
| | *Within* | | *0.0675359* | *-0.0248* | *-0.6833* | *T=10* |
| *OTHER* | *Overall* | *0.1528* | *0.1503726* | *0* | *0.6234* | *N=100* |
| | *Between* | | *0.1524333* | *0* | *0.44956* | *n=10* |
| | *Within* | | *0.0385794* | *0.01374* | *0.32664* | *T=10* |
| *LnROE* | *Overall* | *2.982573* | *0.439967* | *1.652497* | *3.639545* | *N=98* |
| | *Between* | | *0.3565763* | *2.356618* | *3.292308* | *n=10* |
| | *Within* | | *0.2822359* | *2.278452* | *3.620666* | *T-bar=9.8* |

| | | | | | | |
|---|---|---|---|---|---|---|
| *LnBV* | *Overall* | *2.946209* | *1.009339* | *0.7779937* | *5.001198* | *N=100* |
| | *Between* | | *0.9234313* | *1.541429* | *4.191428* | *n=10* |
| | *Within* | | *0.493519* | *1.95415* | *3.9359* | *T=10* |
| *LnROC* | *Overall* | *2.555529* | *0.7718328* | *-2.397995* | *3.420402* | *N=99* |
| | *Between* | | *0.6288528* | *1.278344* | *3.105383* | *n=10* |
| | *Within* | | *0.4822846* | *-1.12081* | *3.452439* | *T=9.9* |
| *LnGR* | *Overall* | *2.481593* | *0.5175883* | *0.9015831* | *3.306492* | *N=99* |
| | *Between* | | *0.3876494* | *1.855882* | *2.906813* | *n=10* |
| | *Within* | | *0.3608389* | *1.355507* | *3.217396* | *T-bar=9.9* |
| *LnROA* | *Overall* | *1.051663* | *0.5006092* | *-1.386294* | *1.838134* | *N=98* |
| | *Between* | | *0.4010456* | *0.4679034* | *1.638373* | *n=10* |
| | *Within* | | *0.3261478* | *-0.806391* | *1.86886* | *T=9.8* |

*Table 4.1*

Table 4.1 shows the descriptive analysis of the variables used in the study. The goal is not omly to calculatet the overall mean, standard deviation, minimum and maximum of the variables but to go deeper and obtain the between and within variations. To understand the results better, keep in mind:

- Overall variation: variation over time and individuals.
- Between variation: variation between individual values.
- Within variation: variation within individualvalues.

**Correlation analysis**

Table 4.2 is a correlation matrix of all the variables in the study. Negative correlations exist between dividend payout ratio and institutional, foreign and government ownership structures. Positive correlations exist between dividend payout ratio and managerial and other ownership structures.

*Table 4.2*

| | *DPOUT* | *INST* | *MGRL* | *FRGN* | *GOVT* | *OTHER* | *ROE* | *B.VALUE* | *ROA* | *ROC* | *G.RATE* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DPOUT | 1 | | | | | | | | | | |
| INST | -0.44661 | 1 | | | | | | | | | |
| MGRL | 0.449646 | -0.8403 | 1 | | | | | | | | |
| FRGN | -0.03379 | -0.08757 | -0.17986 | 1 | | | | | | | |
| GOVT | -0.15755 | 0.392369 | -0.48413 | 0.004671 | 1 | | | | | | |
| OTHER | 0.148181 | -0.07187 | -0.1109 | -0.069 | -0.12936 | 1 | | | | | |
| ROE | 0.351129 | -0.3039 | 0.387227 | -0.09914 | -0.3221 | 0.299652 | 1 | | | | |
| B.VALUE | -0.00482 | -0.11331 | 0.244083 | 0.114066 | -0.1054 | -0.1474 | -0.12852 | 1 | | | |
| ROA | 0.42163 | -0.36439 | 0.286839 | 0.160211 | -0.35174 | 0.490134 | 0.847641 | -0.12603 | 1 | | |
| ROC | 0.300445 | -0.29282 | 0.374887 | -0.18908 | -0.20508 | 0.380412 | 0.90781 | -0.16624 | 0.812638 | 1 | |
| G.RATE | -0.56618 | 0.141441 | -0.0921 | -0.03546 | -0.14464 | 0.095813 | 0.518023 | -0.09287 | 0.357855 | 0.480927 | 1 |

The correlation matrix helps to prove the presence of correlation relationships between the dependent variable and the independent variable. However, this does not suffice for efficient and sufficient conclusions to be drawn. We go on to perfom the Hausman test for panel data estimation and analysis.

**Hausman testing**

Table 4.3 gives the results of the Hausman tests which is carried out on Stata to guide on whether to use the fixed effects model or the random effects model.

| | *Coefficients* | | | |
|---|---|---|---|---|
| | *(b) Fixed* | *(B) Random* | *(b-B) Difference* | *Sqrt s.e* |
| *INST* | *-1.760673* | *-1.069163* | *-0.6915097* | *0.4650309* |
| *MGRL* | *-1.117973* | *-0.9301448* | *-0.1878284* | *1.136792* |
| *FRGN* | *-2.039028* | *-0.5780533* | *-1.460975* | *0.5965101* |
| *GOVT* | *0.2577598* | *1.033209* | *-0.7754491* | *0.124059* |
| *OTHER* | *-0.8334948* | *-0.6621114* | *-0.1713834* | *0.7114478* |
| *LnROE* | *0.827196* | *1.581963* | *-0.7547667* | *0.0966885* |
| *LnBV* | *0.0453731* | *-0.0872376* | *0.1326107* | *0.0722086* |
| *LnROC* | *-0.3326256* | *-0.4917891* | *0.1591636* | *0.1451428* |
| *LnGR* | *-0.8569647* | *-1.362436* | *0.5054708* | *0.0921286* |
| *LnROA* | *0.3922436* | *0.64531* | *-0.2530665* | *0.0436864* |

*Table 4.3*

*b = consistent under Ho and Ha; obtained from xtreg*

*B = inconsistent under Ha, efficient under Ho; obtained from xtreg*

*Test: Ho: difference in coefficients not systematic*

*chi2(10) = (b-B)'[(V_b-V_B)^(-1)](b-B)*

*= 46.72*

*Prob>chi2 = 0.0000*

*(V_b-V_B is not positive definite)*

### Inferences

According to the results, *b (coefficients of fixed variables)* is consistent under $H_0$ and $H_a$ while *B (coefficients of random variables)* is inconsistent under $H_0$ and $H_a$. The $Chi^2$ obtained from the test is significantly small, this implies that the fixed effects coefficients and the random effects coefficient are significantly differents. Taking into conisderation these results, the study applied a fixed effects model on the panel data to analyze the effect of ownership structure on the dividend policy of listed banks in Kenya.

### Fixed effects modelling

### First differences model

Table 4.4 below shows the results of the first differences model as ran on stata. The coefficients represent the level of impact that each independent variable has on the dependent variable (dividend payout ratio). The independent variable and control variables were transformed into their log form because it made substansive sense so as to fit the model best.

| *D.LNDPOUT* | *Coef.* | *Std. Err.* | *t* | *P>\|t\|* | *95% Conf* | *Interval* |
|---|---|---|---|---|---|---|
| *INST D1* | *-0.7004953* | *1.078158* | *-0.65* | *0.518* | *-2.851926* | *1.450935* |
| *MGRL D1* | *-0.2978744* | *1.93086* | *-0.15* | *0.878* | *-4.150845* | *3.555096* |
| *FRGN D1* | *-1.581865* | *1.349038* | *-1.17* | *0.245* | *-4.273828* | *1.110097* |
| *GOVT D1* | *0.05763071* | *0.4940408* | *1.17* | *0.247* | *-0.409536* | *1.56215* |
| *OTHER D1* | *0.4077434* | *1.0906* | *0.37* | *0.710* | *-1.768515* | *2.584002* |
| *LnROE D1* | *0.7811386* | *0.3521436* | *2.22* | *0.030* | *0.078447* | *1.48383* |
| *LnBV D1* | *0.0019828* | *0.1541269* | *0.01* | *0.990* | *-0.3055726* | *0.3095382* |

| | | | | | | |
|---|---|---|---|---|---|---|
| *LnROC D1* | *-0.1776962* | *0.2310915* | *-0.77* | *0.445* | *-0.6388321* | *0.2834397* |
| *LnGR D1* | *-0.7778022* | *0.1410992* | *-5.51* | *0.000* | *-1.059361* | *-0.4962432* |
| *Ln ROA D1* | *0.3538276* | *0.2850201* | *1.24* | *0.219* | *-0.2149212* | *0.9225764* |

*Table 4.4*

**Inferences**

The results obtained were scrutinized against the previously formed working hypothesis.

Institutional ownership

A unit change in institutional ownership will change dividend payout ratio by -0.7004953. Thus we reject the null hypothesis that there is a positive relationship between institutional ownership and dividend payout of banks.

Managerial Ownership

A unit change in managerial ownership will change dividend payout ratio by -0.2978744. Thus we accept the null hypothesis that there is a negative relationship between managerial ownership and dividend payout of listed banks.

Foreign Ownership

A unit change in foreign ownership will change dividend payout ratio by -1.581865. Thus we accept the null hypothesis that there is a negative relationship between foreign ownership and dividend payout of listed banks.

Government ownership

A unit change in government ownership will decrease dividend payout ratio by 0.05763071. Thus we accept the null hypothesis that there is a positive relationship between government ownership and dividend payout of banks.

Other ownership

A unit change in other ownership will change dividend payout ratio by 0.4077434. Thus we accept the null hypothesis that there is a positive relationship between other relationship and dividend payout of banks.

## CONCLUSION

The purpose of this study is to explore the impact of the ownership structure on dividend policy of listed banks in Kenya. In order to achieve this, a panel data analysis was carried out on a sample of eleven of the twelve listed banks in Kenya. Evidence from the first order regressions reveal government and 'other' to be the ownership type to have the strongest positive influence on dividend payout ratio. Meanwhile, institutional, foreign and corporate ownership types exhibit a negative relationship with dividend payout ratio.

Furthermore, the results indicate that price to book value and return on asset have a positive impact on the dividend payout ratio of the firms in the study. The results also suggest a strong positive relationship between return on equity and dividend payout ratio, while an inverse relationship with growth rate and return on capital is proven.

One feasible explanation for the findings is the 'substitute model', in which dividends are the substitute for legal protection of outsiders, and are paid to establish reputations of good treatment of external shareholders. According to the 'substitute model', insiders interested in issuing equity in the future pay dividends to establish a reputation for decent treatment of minority shareholders.

Most banks that are government run aim to form cordial relationships and improve the standard of living for their shareholders. Issuing dividends is an effective way of achieving this. In turn, banking stocks become very attractive to investors looking to diversify their portfolios. However, foreign and institutionally run banks are more profit driven; therefore, they will reinvest their revenues into capital generating projects. Further research is needed to test whether the "substitute model" and reputation effect can actually explain the dividend policy of Kenyan listed firms.

## RECOMENDATION

There are conflicting theories and opinions in the community of finance researchers on the topic of dividend policy and ownership structure. Contradicting schools argue on one hand that dividend policies are irrelevant for the value of firms, while other schools argue on the other hand that they are relevant. Previous research on the topic conducted in different geographical settings have yielded different results, but nearly all of them have been conducted in advanced economies. This study is one of the first to be conducted in the setting of a developed economy.

This paper has therefore added knowledge to the field of dividend policy and ownership structure by adding another piece of the puzzle of dividend policies: how ownership structure impacts upon divend policy by using dividend policy as a proxy. The results from this paper can be used for further studies, partly as a theoretical base when comparing other countries but also for future studies which may seek to explain the differences between the relationships of ownership structure and dividend policy in different geographical settings. They results may also be used as a predictor of dividend policies of firms with a high concentration of institutional ownership in geographical settings similar to Kenya. This information could be useful for managers of firms who want to attract a certain kind of investors by utilizing dividend policy as a means of doing so. Furthermore, this study has provided support for the theory that dividends are relevant to the value of the firm as proposed by (Gordon, 1963), (Lintner J. , 1962) and (Walter, 1963)

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