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Effect of Capital Structure on Dividend Pay-Out Ratio of Public Listed Commercial Banks in Kenya

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DECLARATIONS

This Research is my unique work and has not been presented for an academic award at any other university.

Signature----------Date ----------

Paul Mulongo Webi

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Declaration by the supervisor

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

Signature----------Date ----------

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ABBREVIATIONS AND ACRONYMS

BASEL 1	Banking Assets Security, Equity and Liability (First Proposal)
BASEL 11	Banking Assets Security, Equity and Liability (Second Proposal)
BASEL 111	Banking Assets Security, Equity and Liability (Third Proposal)
CBK	Central Bank of Kenya
CDs	Certificate of Deposit
CFC Bank	Credit Finance Corporation
CMA	Capital Market Authority
EABS	East Africa Building Society
I and M Bank	Investments and Mortgages Bank
IPO	Initial Public Offer of Shares
KCB	Kenya Commercial Bank
NHC	National Housing Corporation
NIC Bank	National Industrial Credit Bank,
NPV	Net Present Value
NSE	Nairobi Stock Exchange
UK	United Kingdom
USA	United States of America
RWA	Risk-Weighted Assets

DEFINITION OF KEY TERMS

Capital Structure: is a mix of equity, debt and internal funds that an organization has selected to fund its operation (Central Bank of Kenya, 2006).

Minimum Absolute Core Capital: this is funding comprised of disclosed reserves and equity as disclosed by banks financial statement (Central Bank of Kenya, 2006).

Capital Adequacy Ratio: this is a measure of bank capital as a proportion of banks risk weighted credit exposures (Central Bank of Kenya, 2006).

Customer Deposit: This is money reserved by the bank on behalf of their clients as fixed deposit, money on call or saving for custody for use in prospect dealings, as well as earns modest amounts of interest on the same (Central Bank of Kenya, 2006).

Risk-Weighted Asset: This is a measure of bank assets according to the risk associated with them (Central Bank of Kenya, 2006).

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Inter bank borrowing: This refers to lending between banks for a specified term they are usually based on the interbank rate (Central Bank of Kenya, 2006).

Dividend Pay-out ratio: This as a portion of the total amount of dividends paid out to shareholders relative to the net profit of a given entity the firm. The other portion is retained to pay off liabilities or to reinvest back to the business (Demirguc, Evan off and Kautman, 2011).

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ABSTRACT

The capital structure of an organization is the composition of its equity, debt and internal funds that it has selected to run its operation. In business, the management has to make a decision whether to use debt, equity or a combination of both putting into consideration factors such as the cost of capital, business expansion rate, business risk, market condition, tax exposure and dividend policy. Dividend pay-out is the portion of company's net profit paid back to the shareholders as their reward. The main of this study was to assess the effect of capital structure on a dividend pay-out ratio of Public listed commercial banks in Kenya. The other objective was to assess the effect of capital structure components this is Tier 1 Capital, Tier 2 Capital and Customer deposit and Inter bank borrowing on dividend policy. The study population comprised of 11 public listed commercial banks in Kenya. Secondary data was collected from the Capital market Authority and Nairobi Security Exchange over a period of seven years from the year 2011 to 2017. Multiple Regression model on panel data was used for analysis, the variables entailed; Tier 1 Capital, Tier 2, interbank borrowing, Customer deposit. The findings show that there exist a strong negative relationship between the Tier 1 Capital ratio (Minimum Absolute Core capital ratio), Tier 11 Capital (Capital adequacy ratio), and dividend pay-out ratio of public listed commercial banks in Kenya, but Inter bank borrowing show a weak positive relationship on the same while Customer deposit has a strong positive relationship to dividend pay-out ratio of public listed commercial banks in Kenya. The study recommends banks to consider capital structure composition among factors to determine dividend pay-out ratio.

Keywords:- *Minimum Absolute Core Capital, Capital Adequacy Ratio, Risk-Weighted Asset, Customer Deposit, Interbank Borrowing, And Dividend Pay-Out Ratio.*

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CHAPTER ONE
INTRODUCTION

1.0 Background Information

The capital structure of an entity is the composition of its equity, debt and internal funds that run its operation. In any entity, the management decides which capital mix to adopt considering factors such as the cost of capital, business growth rate, financial threat, market circumstance and tax exposure (Cziriki, 2011). Modigliani and Miller (1958) stated that under a perfect condition, the value of the firm is determined by the capital structure and the level of leverage does not affect the market value of the firm. This being the basis of capital structure theory it paved the way for alternative theories of capital structure and empirical analysis as the crucial determining factor (Barclays et al, 1997).

1.1.1 Global Perspective

The banking industry has experienced incredible changes in the recent past 40 years. This was attributed by challenges such as the global financial crisis that occurred in the 1980s and recent financial crisis in the year 2007, which led to the development of contemporary financial theories while trying to explain and solve the issues. Regulators were mandated to develop new system to maintain steadiness of the banking sector across the world (Demirguc, Evansoff and Kautman, 2011)

In the year 2004, the BASEL committee published the Second BASEL accord stating the minimum capital requirement to be adopted by international banks and its implication on financial stability across the globe. The first accord was introduced in 1988 and was adopted by more than 100 countries across the globe (Jackson and Emblow, 2001). This accord focused broadly on the requirement of credit risk. It had set forth the total risk-weighted capital of eight percent to be adhered to by each bank, failure to which shareholders will be forced to recapitalize the bank in question. Under such situations, the regulator may perhaps step in to liquidate the bank in case the shareholders fail to take action.

To achieve the minimum capital requirement, banks can issue: new equity, reduce asset value or switch to lower risk assets through portfolio mix to continue a constant asset level (Cumming and Nel, 2005). The initial accord came under substantial criticism after it had managed to increase the international capital level. This led to the development of the second accord to improve the imperfection in the previous accord.

The second accord has three pillars. The first pillar focused on the minimum capital requirement. It prescribes the minimum capital that will cater for all the risks such as credit, market and operational risk (Basel Committee on Banking Supervision, 2005). The second pillar entails supervisory responsibilities. It clearly describes the role of the supervisors and the power conferred to them in regard to the banking industry. It also emphasizes on risk management as envisaged in the first pillar. Generally, the second pillar creates a supervisory framework that gives authority to supervisors to review and regulate the banking sector. The third pillar focuses on market discipline. It puts forth best practices and guidelines for one to adequately show information to the public about visible risks, the risk profile and the best mitigation practices in place (Basel Committee on Banking Supervisory, 2005). In Basel II, bank capital is divided into Tiers each having a stake of 50%. The first tier is the core capital which constitutes disclosed reserves and equity as disclosed by the financial statement of most countries.

Second-tier capital is made up of supplementary capital this is subordinated debt, hidden reserves, hybrid instruments, general provision and the revaluation reserves. The final tier is composed of the short-term capital, which covers the market risk or assists in the lessening exposure of market risk and temporary debt is a component of third-tier (Basel Committee on Banking Supervision, 2005).

After the global financial crisis of 2007-2008, the banking regulators made reforms known as Basel III in the year 2010 to ensure stability in the banking sector, by tripling the size of minimum capital reserve that banks globally must maintain against losses. Under this pact, the new capital ratio is 4.5 % with an extra buffer of 2.5% as compared to Basel II. They recommended that banks whose capital falls within the buffer zone should be restricted to offering discretionary bonuses and paying high dividends (Akkizidis and Kalyvas, 2018). The tough standards set under the Basel III accord are crucial to prevent another financial crisis from occurring.

1.1.2 Regional Perspective

The global financial crisis of 2008 and the consequential economic and credit crunch acted as a catalyst for researchers to focus interest in the banking sector. The emergency and increasing spate of globalization have trickled into the African banking industry hence they are in the same way affected by the changes of the banking sector globally. Regardless of the changes, banks are graded based on their profitability, number of branches, accessibility and customer service. The major function of banks is to consolidate surplus funds and avail them to the deficit sectors in the economy (Demirguc, Evanoff and Kautman, 2011). According to Floyd et al, 2015) dividend policy /pay-out ratio plays a significant role in banks as compared to non-

financial institutions. In the year 2015, Hirtle showed that when the financial crisis began there were adjustments in pay-out through a reduction in share price and the dividends were unaffected.

In Africa the banking sector development is answer to economic growth and enhancement. The study by Rehman (2008) recognized the slow growth and lack of progress and development in the banking sector, to the financing system and capital structure. Therefore, it is indispensable to examine the capital structure of banks and understand how they facilitate the managers and directors to make capital and dividend policy decision (Demirguc, Evanoff and Kautman, 2011).

1.1.3 Local Perspective

In Kenya, the capital market is well developed as compared to our neighbouring countries. This is was attributed by the institutionalization of banks during the colonial era and the change that led to the expansion in the directive and the effectiveness of the Nairobi Securities Exchange (NSE). In totting up, the establishment of the Capital Market Authority (CMA) has played a very important role in the administration and regulation of the money and capital market in Kenya. The CMA foster and reforms the market to be a more dependable source of long-term capital investment through the establishment of a central pool system, the rule and the regulations put forth to ensure stability (CMA, 2013).

Monetary and fiscal policy regulators control the operation of commercial banks; they delineate the environment and conditions for operation. In Kenya the minimum capital requirements and other capital requirements of commercial banks are harmonized by the Central Bank of Kenya. However, globalization has contributed a lot to the progression of financial systems that assist in improving transparency, discipline, and creation of financial infrastructure this pose a risky environment that require close monitoring and evaluation by the regulatory bodies. On the other hand Managers are generally on the tight spot establishing the dividend policy putting into deliberation the agency problem; especially where there is, a difference in the interest of stakeholders that should be satisfied (Murekefu, 2012).

Dividends have a withholding tax of 5% and the capital gains are non-taxable. This makes most investors prefer capital gains to dividends. This pose a challenge to managers who have a accountability to maximize investments and profitability by use of cheaper capital inform of retained earnings and at the same time assure investors that the firm is committed to increase their wealth. This part of study on the capital structure and dividend policy has received a lot of attention that has lead to numerous theories trying to solve the dividend puzzles facing business entities worldwide (Andrew and Garry, 2001). These peculiar puzzles and agency problems are some of the factors that attributed to the bearing of this study.

1.1.4 Dividend Pay-out Ratio

There are quite a lot of theoretical and empirical research studies, which have played a greate role in the development of Capital dividend policies since the formulation of the dividend irrelevancy proposition by Modigliani and Miller (1961). In a perfect market condition, Modigliani and Miller claim that the value of the firm is not affected by the dividend policy. However, in an ordinary business environment, there are several factors in place that should be put into consideration his includes but not limited to; agency problems, taxes, information asymmetry, and transaction costs. This formed the basis for the development of a range of theories on dividend policy such as tax preference theory, agency cost, and signalling theory (Casey and Dickens, 2000).

John (2013) attributes that dividend pay-out ratio plays a significant role in an organization. It provides indication on the company's financial stability this is sustainability and potential for its growth.

Emerging and fast growing companies tend to retain more earnings or issue lower dividends because they need to reinvest back in the business. Firms with unpredictable cyclical earnings usually do not maintain a stable dividend policy since in bad time it will be difficult for them to sustain high dividends. However mature and stable firms with predictable cash flow and retained earnings tend to pay high dividends. According to most investors a stable dividend pay-out ratio is a sign of financial discipline (Hirtle, 2015).

In Kenya, there are no rules on the dividend pay-out ratio that a company should adopt. This issue has been a contest among finance managers given that they make decision on the rate of dividend to be paid to the ordinary shareholders. But they have to consider factors such as: cash availability, debt obligations/covenants, and legal requirements. Dividend policy is not constant across above-board regime and it is an effective way to manage agency behaviour (Andrew and Garry, 2001).

Among the factors affecting the leverage of most firms is the dividend pay-out ratio. According to Rozeff (1982) depict that low agency cost and transactions cost as associated with high dividend payout ratio. To the investor's dividend pay-out ratio is a signal of future increase in earnings, this will automatically influence investor's decision in regards to equity financing hence deduced cost of equity (Antoniou, et al., 2008).

1.1.5 Regulation of Commercial Banks in Kenya

The Central Bank of Kenya (CBK) system, the Companies Act and the Banking Act funnel the banking sector in Kenya. With the aid of straighten policy and guideline from the regulators Kenyan banking system

is considered to be more advanced compared to other East African countries. Even though Kenya banking system is considered a bench mark among east African countries in regards to access to banking services only 20%- 40% of the country's population have access to banking services (Kimenyi and Ndungu, 2009). There are several reforms in the banking sector since independence (CBK 2012). In 1986 Kenya experienced a crisis in the banking sector, where a number of commercial banks shrunken. To moderate the risk, some financial institutions were taken and merged into state banks. The CBK was forced to strengthen and look over banks. This led to the prologue of the deposit protection fund which provided that a deposit of up to one hundred thousand shillings should be guaranteed (Marietta, 2012).

In 1993, the Goldenberg scandal led to the closure of the Exchange Bank. Five years later the following banks collapsed due to poor management: Trist bank, Reliance bank, Bullion bank, and Prudential bank, National bank almost shrunken in the same period. The multinational banks such as the Standard Chartered and one state-owned bank, the Kenya Commercial Bank (KCB) dominated the Industry (Marietta, 2012). It was estimated that at that time a total of Ksh. 280 billion was owned by the four largest banks; this is the Barclays bank, National bank, KCB and the Standard Chartered Bank, which represented more than half the total value of assets owned by commercial banks during that period. Smaller banks merged and some were taken over to meet the minimum capital requirement set by the CBK. First American Bank Kenya Limited was taken over by the Commercial bank of Africa; Akiba Bank merged with East Africa Building Society (EABS) to form EABS Bank. A single shareholding limit is in place where no one individual is allowed to hold directly or indirectly or beneficial interest of more than 25% of capital share in any banking institution in Kenya. To stabilize the banking sector, laws were enforced by CBK to regulate the capital base for banks in operation. The statutes provided that for the bank balance sheet to grow, it has to increase deposit-taking to enable lending their lending activities. Stringent regulation led to the merger among smaller banks to form a stronger capital base (Marietta, 2012).

In Kenya, there are eleven public listed commercial banks as outlines in Appendix B. The Banking Act demands commercial banks to pay dividends on their shares or make a distribution after the capitalized expenditure has been written off. The dividend should be paid out of profit and not out of capital. However, due to tough competition, most financial institutions prefer to retain their profits to build a base for growth. Some banks are forced to pay low dividends in order to attain the minimum capital adequacy ratio to enable them have a buffer to meet future commitments instead of borrowing funds (NSE, 2018).

According to the Banking Act (2015), the ratio between core capital and deposit of the total capital of a banking institution in Kenya should not be less than 8% of the total deposit liabilities. The CBK regulates

the minimum ratio between capital and assets to be maintained by the banking institution. The core capital, the total capital, and the related weighted assets, which include total loans and advances, are usually measured against the weight of the balance sheet items. This aids the classification and evaluation of the assets. The CBK usually assesses and prescribes the higher minimum ratio of the banking institution in regards to its risk silhouette (Banking Act, 2015).

The CBK also requires banks to maintain a minimum holding of liquid assets as prescribed from time to time. The liquid assets include the net bank balance, fund held at the CBK, net balance abroad and the notes and coins legal tender in Kenya. Any institution regulated by the CBK should abide by these guidelines or shall be liable to penalty and interest charged on the deficiency on a daily basis (Banking Act, 2015).

1.2 Statement of the problem

The choice of capital structure and dividend policy has a noteworthy influence on the firm's value, the type of security, the form of allotment and the ownership structure. The decision-making by financial managers of an organization determine its capital structure and how the investment proceeds are disseminated among capital gains, interest and dividends. Most financial managers are usually on the tight spot when determining the dividend pay-out ratio for them to maximize the value of the firm.

During the global financial crisis of 2007 to 2008, the dividend pay-out decision received an enormous reaction from the public. In spite of the huge losses incurred majority of large banks in the USA maintained a stable dividend policy while other banks increased the dividend payout ratio until 2008. This behaviour can be explained by the desire to shift wealth from their creditors; hence, the banks were hesitant to slash dividends, fearing that it will cause uncertainty on their fundamentals causing a refinancing setback (Acharya et al, 2012).

A study on capital structure and dividend payout ratio by AlShabib and Remesh in (2011) found that there is no noteworthy connection between debt and dividend pay-out ratio. This findings contrast with the finding by Al-Kuwari, (2009) whose study show a significant positive relationship between the two variables. According to Ogebe and Kemi (2013), a verdict on the capital structure of a firm is very vital since it determines its value and continued existence. There is a significant difference between dividend pattern for firms operating in budding markets as compared to dividend policy in developed nations (Adaoglue, 2000).In addition, Adaoglue, (2000) found out that firms operating in developed markets have a constant dividend policy as compared to those operating in budding markets, which had a wobbly dividend policy. However, a study by Aivazial et al, (2003) showed that some firms in the USA market exhibit unsteady

dividend policy. The only difference is that firms operating in budding markets are more concerned with some variables, which is an indication of financial, constrain on the operational environment. Their findings also showed that most firms operational in emerging market were affected by asset mix up, which is related to over-reliance on bank loans under a bank-dominated environment; however, this is only applicable in non-banking institutions (Brantford et al, 2002).

Several theories and empirical studies conducted in this area are not conclusive, although the capital constitution is considered a vital factor to determine dividend policy. There is limited study that has tried to analyze the effect of capital structure on the dividend pay-out ratio of public listed commercial banks in Kenya. Stringent regulation by regulatory bodies in Kenya adds to the difficulty in determining the capital structure policies and dividend policies of public listed commercial banks especially in the banking sector; since the capital structure of banks hold opposing views from other sectors and we cannot use the results from other sectors to make a conclusion.

This research was based on the basis that it is vital for commercial banks in Kenya to determine the best capital structure to fund their operations and put into consideration a percentage of net profit to be retained back and the ratio of net profit to be distributed to shareholders in form of dividends. Hence, this study will assist to viaduct the fissure that exists and aid bank managers, regulators, and investors to understand the effect of capital structure and dividend pay-out ratio in a bid to solve agency-related problems. This will enhance the steadiness in the banking sector in regards to capital structure and investors' contentment and it will assist to minimize agency risk between managers and stakeholders in the banking sector.

1.3 Objectives of the Study

1.3.1 General Objective

The main objective of this study was to assess the effect of capital structure on a dividend pay-out ratio of public listed commercial banks in Kenya.

1.3.2 Specific objectives

The specific objectives of the study included:

1. To determine the effect Tier 1 Capital Ratio on dividend pay-out ratio in public listed commercial banks in Kenya
2. To determine the effect Tier 2 Capital Ratio on dividend pay-out ratio in public listed commercial banks in Kenya

3. To determine the effect of Inter bank Borrowing on the dividend pay-out ratio of listed commercial banks in Kenya.
4. To determine the effect of Customer deposit on the dividend pay-out ratio of listed commercial banks in Kenya.

1.4 Research questions

The main research questions were:

1. What is the effect of Tier 1 Capital on dividend pay-out ratio in public listed commercial banks in Kenya?
2. What is the effect of Tier 2 Capital on dividend pay-out ratio in public listed commercial banks in Kenya?
3. How does customer deposit influence dividend pay-out ratio of public listed commercial banks in Kenya?
4. How Does Inter-bank borrowing influence dividend pay-out ratio of public listed commercial banks in Kenya?

1.5 Justification of the Study

Shareholders and potential investors will find it valuable investing in public listed commercial banks. Most shareholders and investors before investing their wealth they usually consider stability and expected returns on their investments, which are usually measured by return on capital, equity, and asset. This study will chip in to aid investors understand the capital structure of the commercial banks and be able to calculate approximately returns on investment based on the capital structure.

In Kenya, we rank bank managers on the basis of their banks performance by comparing dividend payout ratio. Thus, overlooking the fact that each bank has its own capital structure and investment opportunities, therefore this study will assist the administration with knowledge on how best they can reward the owners, investors based on the capital structure composition.

This study offers substantiation to the regulatory bodies in policy making on on capital adequacy ratio, and setting standards to ensure the banking sector is unwavering.

This study also contributes to empirical study and adds more o the existing literature in regards to capital structure and dividend pay-out in the banking sector.

1.6 Scope of the Study

The study focused on the capital structure and dividend pay-out ratio of public listed commercial banks in Kenya over a period of seven years, from 2011 to 2017. The information collected was analysed, interpreted and conclusions derived from the findings.

The following theories were considered to support the study: Modigliani and Miller Theory; the trade-off theory of capital structure; Pecking order theory; and Agency theory.

1.7 Limitations of the Study

The study was only limited to three variables. Based on these assumptions, it is noted that other factors also have an impact on the dividend pay-out decisions other than the ones considered herein. The factors considered in this study are the ones given priority by the BASEL 111 accord and also have been adopted globally. Basel accord components were considered very decisive in the prevention of financial crisis. In spite of these limitations, the study established a relationship between capital structure and dividend pay-out ratio for the commercial banks public listed. Hence, recommend due assiduousness to be undertaken in the process of formative the dividend pay-out ratio by putting into contemplation the capital structure and allied market and financial risk.

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CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

Capital structure and dividend policy resolution is a contentious debate in the field of corporate finance that scholars are incessantly investigating using diverse approaches and applying different modus operandi in various markets and industries. Previous studies on capital structure and dividend policy are distinct from each other and were affected by common factors (Modigliani and Miller, 1958). There are several inconclusive responses and questions resulting from pragmatic studies, which combine both capital structure and dividend policy theories.

The purpose of this literature review is to understand the outlook of research that have taken place in the field of capital structure and dividend pay-out, both capital structure and dividend policy are indulged as two sides of the same penny. Dividend policy and capital structure are continuum that control allotment between shareholders/ investors and managers since the cross-sectional variation in both theories is based on related factors. Balanced control flanked by investors and managers plays a significant role in minimizing divergent thinking which can create disparity on the value of available opportunities or projects in the organization (Sindhu, 2014).

2.2 Review of Theoretical Literature

2.2.1 Modigliani and Miller Theory

Modigliani and Miller (1958) formulated the opening theory that led to the development of the capital structure theories. The theory had three propositions. The first proposition of 1958, states that the firms' debt and equity ratio does not have an effect on its market value given definite conditions/ assumptions. The second proposition of 1961 stipulates that firm leverage does not have any effect on the working average price of capital (Roberts, 2002). Whereas, the last proposition of 1965, established that the market price of the firm is not affected by the dividend policy. The theory was formulated based on the assumptions that there is no transaction charge, the market is faultless, there is information equilibrium, and there are no taxes and bankruptcy expenses. According to this theory the firm's market value is not affected by the capital structure but rather the market value depends on its capability to generate income using its resources (Chen, Jung and Chen, 2011).

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The first proposition stipulation that there are no taxes assumed that shareholders value the firm based on the cash flow barely taking into contemplation how the firm is financed since debt funding in this case, lacks interest deductibility payback. Therefore, the majority firms will be indifferent to the sources of capital they may choose (Luigi and Sorin, 2012).

The assumption of the second proposal is that the association between the cost of equity and the cost of debt is linear. The cost of equity is considered to be elevated compared to the cost of debt; creditors have a preference during dissolution as compared to Shareholders. Hence, the higher the fraction of debt in the capital structure increases the cost of equity but the working average cost of capital will remain steady/ is not affected (Luigi and Sorin, 2012).

Modigliani and Miller's third proposition concludes that the dividend pay-out a firm choose to follow does not affect proceeds and the present price of shares given a firm's investment strategy (Chen, Jung and Chen, 2011).

In the ordinary business environment, the assumptions made are idealistic since there are transaction charges, bankruptcy expenses, taxes and information unevenness hence rendering the theory unfeasible. This study considers a realistic environment where transaction charges, taxes, and that information lop-sidedness exists.

Modigliani and Miller went further to illustrate realistic situations to show the dividend irrelevance proposition. Where they squabble that irrespective of the dividend policy, investors have the wherewithal to make cash flow from the stock depending on their cash desires. Hence, a share holder can take advantage of the arbitrage to sell their shares to fill the fissure left by dividend issued. At the same time in the case, there is no cash requirement investors can reinvest dividends in stock. Basing on this argument Modigliani and Miller stated that the dividend policy of a firm has no effect on the investment decision by the investors. On the arbitrage argument dividend, the issue of dividend is offset through borrowing. When dividends are issued stock value reduces and nullifies the gains made by the investor (Modigliani and Miller, 1963).

This study points evaluated the outcome of borrowing on a dividend pay-out ratio of public listed commercial banks in Kenya, which can either hold up the theory or invalidate it since the theory is based on several postulation that are unrealistic.

2.2.2 The Trade-off theory of capital structure

This theory was formulated by Myer,(1984), it stipulates that the optimal capital structure is a swap between interest shield and the price tag of financial distress which can be articulated by an equation {V= Ke + PV (Tax shield) –PV (Cost of Financial Distress)}

Graphical representation is shown below:

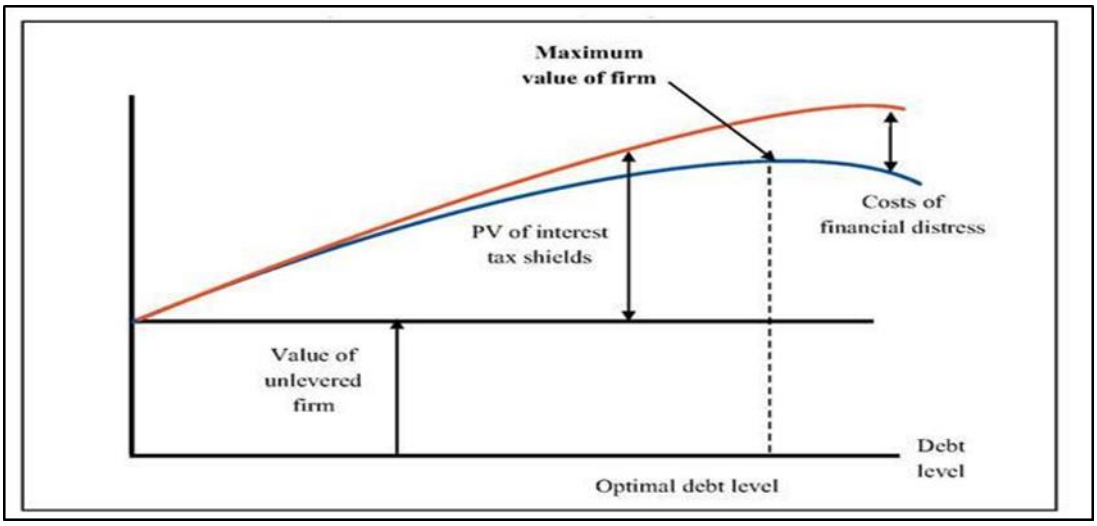


Figure 2. 1: The optimal capital structure (Source: Myers, 1984)

The initial point is the value of all equity-financed firms shown as a straight flat line. The upper (red arc) is fashioned by adding a tax shield; according to Modigliani and Miller model a lift up in borrowing results to a high chance of financial distress (Roberts, 2002). A firm may not recognize the benefits of a tax shield if there is excessive borrowing. The cost of financial distress increases with an increase in the debt level. The gap between the scarlet and the middle (cobalt) curve shows the intensity of financial distress. Therefore, there is an optimal debt policy, which makes the most of the value of the firm (Masidonda, 2013)

This theory is considered paramount to explain the variance in capital structure athwart different industries but it does not explain why some lucrative companies within a given industry may have a low debt ratio, which is contrary to trade-off forecast on tax shield and profitability. Hence, the call for this study on the effect of capital structure on dividend policy in the banking sector.

2.2.3 The pecking order theory

The conception of information unevenness was not considered in the trade-off theory. This aspired Myers and Majiluf (1984) to put forward a pecking order theory, which puts into contemplation the divergence between the insiders and outsiders regarding information asymmetry. However, this theory does not take

into consideration the notion of optimal capital structure. Furthermore, the theory also considers the signalling effect (Mostafa and Boregowda, 2014).

Pecking order theory emerged as an advance on Modigliani and Miller framework where Myers and Majiluf (1984) introduced unevenness information in the framework. In the asymmetric context, managers are held to be acquainted more about the future prospects of the firm than shareholders do and any action they undertake acts as a signal of the firm. These arguments act as the basis of this theory. During the period of the share price declaration, the price of the stock generally declines since most investors suppose that managers will issue overpriced stocks. Therefore, most firms will desire to issue debt given that this will facilitate sourcing of funds without sending appalling signals in the market. Since this obligations can result in an information predicament with a high probability of default. If a manager is pessimistic he will issue debt before the information goes to the public (Mercado and Willey, 2005).

The foregoing perspectives led to the pecking order theory, which states that when making financial resolution, internal funding is ideal over external funding. Moreover, in case there is a call for external financing, debt should be issued first and equity should be considered as the last remedy. This theory gives the impression why there is a low debt ratio in lucrative firms since they will use internal funding. The advantage of this theory over trade-off theory is that it has the capability to explain the diversity in capital structure in a certain industry (Juma, 2008).

In the firm's capital structure decisions on transaction charge play a noteworthy role. This charge is linked with acquiring outside financing at a high cost as compared to internal funding. This hypothesis regards the market to book ratio as good measure of investment opportunity.

According to Mostafa and Boregowda, (2014) who allude to Myers work of 1984 later made some adjustment on the pecking order theory. They proposed that firms should issue shares to take advantage of filling a monetary slack in cases where there is minimal information asymmetry. According to Myers, firms can issue debts, which are more flexible. Hence, emergent firms should maintain a lower level of debt (Roberts, 2002). Consequently, if the firm's debt level surpasses its debt capacity these will have a negative impact on the value of the firm. Therefore based on the above notion it can be concluded that the target debt proportion as explained in the trade-off theory is similar to the target debt relative amount according to the trade-off theory. The only option to distinguish the two theories based on a given firm is to check during initial public offering (IPO) of shares if all the internal sources are exhausted or if the internal sources are

for investment project then one can evidently conclude that the firm is following pecking order hypothesis (Baker and Wurgler, 2007).

The study by Baker and Wurgler (2007) on the market timing and capital structure findings depicted that the aim of pecking order theory is to make certain that the tenure structure of the organization is maintained and make sure managers enjoy the buoyancy of the shareholders. The shareholders determine the deeds of managers. Hence, the study demonstrates the best relationship between reserve funds in the banking sector and the dividend pay-out ratio that minimizes agency costs.

2.2.4 Agency theory

Jensen and Meckling (1976) developed the Agency theory. They based their discussion on ownership and control problems. The managers of other people's resources cannot be expected to watch over if they have their own interest in the firm. In this case, managers will put their own interests and sacrifice the interest of the owners hence this results in agency problem which can best be described as a clash of interest between managers and shareholders (Mercado and Willey, 2005).

Allen et al (2012) depict the connection between debt financing and dividend pay-out ratio. They based their study on loan precise data to document a noteworthy relationship between dividend pay-out and the intensity of the firm's dependence on debt funding. They concluded that debts financing protects the veracity of shareholder's claims on the assets of the firm hence dividend pay-out is restricted (Roberts, 2002). Furthermore, dividend declines with increased monitoring by the relationship bank, which is an effectual governance mechanism. Monitoring of banks and good corporate governance system are the harmonizing mechanism to resolve the agency dilemma of the firm. Using debt financing to pay dividends bores the agency problem between owners and managers. The higher the debt level associated with, the less dividends allotment.

Findings in the study by Casey and Theis (1997) on the petroleum sector support the notion that dividend policy is strongly related to agency quandary and risk, and neither the size nor the investment opportunities. Also, the study by Casey and Dicken (1977); maintain that investment opportunities and agency problem are the main determinants of dividend policy and not the risk magnitude of the firm.

Mercado and Willey (2005) studied the effect of profitability, size, life cycle, investment prospect and agency problem on dividend pay-out ratio by the use of a logit regression model. Their result showed that

agency reduction and all the other variables outlined had a constructive effect on the dividend pay-out ratio (Mercado and Willey, 2005).

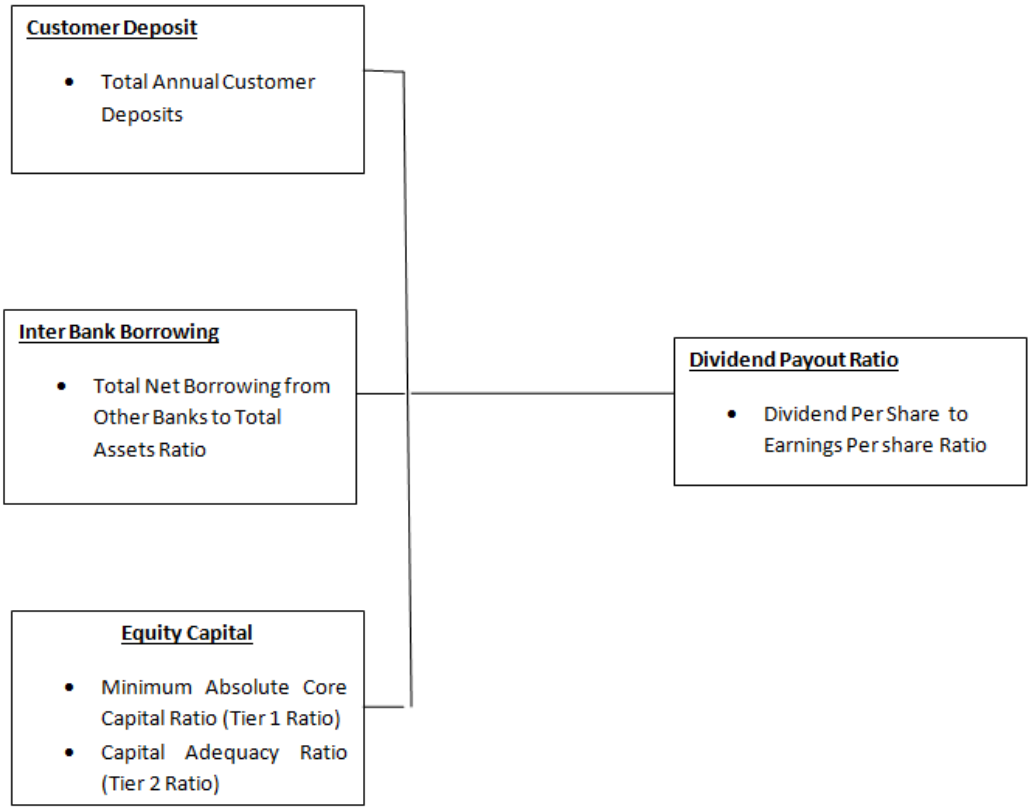
In the year 2009, Al Kuwari carried a study in the financial sector listed in Saudi Arabia security Market, his findings depict that capital structure, profitability, shareholding, and the government had a affirmative effect on the allotment of dividend but a unconstructive effect was associated with the debt level. He avowed that firms issue dividends with the aim of plummeting agency problems and stabilizing the reputation of the firm. (Al Kuwari, 2009).

Kinfe (2011) studied foreign-owned commercial banks in Lebanon for a period of five years (2000 – 2005) and establish that there was a direct impact of the proportion of ownership in the banks and the capital structure composition on dividend allotment. However, earnings from the same banks had an adverse consequence on dividend sharing. Hence, he concluded that this happened since most banks in Lebanon take into consideration; agency problems, last year's dividend, and liquidity when making dividend policy resolution (Kinfe, 2011).

2.3 Conceptual Framework

The conceptual framework confers ocular representation of the principle, concept and theory. The variables presented are interconnected with each other.

Independent variable	Dependent Variable
(Capital structure)	(Dividend Pay-out ratio)



Source: Author, 2019

2.4 Components of Capital Structure

Groping the determinants of capital structure verdict enables one to understand how firms fund their function. Studies have tried to unearth the determinants of capital structure for example; Titman and Wessel (1988) used the number of substantial assets, non-debt tax shield, growth, the distinctiveness of the industry, size, precariousness of revenue and profitability to explain leverage in a concealed variable model. Since the banking sector is an industry pedestal on CBK regulations and the Basel III accord requirements, this study resolute, on issues such as Tier 1 Capital, Tier 2 Capital Interbank Borrowing and client deposits, which are determinants of capital structure.

2.4.1 Customer Deposits

Customer deposits include transactional accounts, savings or fixed deposits and they are the main source of bank liquidity. Among the measures of proper management in banking, organization lies in the ability to meet maturing obligations without having more liquid funds than are actually needed (Robert 1984). However, holding liquid funds has an opportunity cost since they could often be invested in long-term with higher-yielding assets than those which more often than not comprise a short-term portfolio.

Customer deposits can be characterized based on the source this is from government and state entities as well as from the private sector firms and individuals. Further, customer deposits may be classified based on the maturity period, which ranges from a week to over ten years. For this study, the customer deposit was measured by annual Customer deposits.

2.4.2 Inter Bank Borrowings

Borrowing is the main source of funds for commercial banks subsequent to deposits. Commercial banks may borrow from other banks, Central bank or from their head office (for international banks). Banks experiencing deposits challenges can borrow from other banks instead of disposing of short-term assets. The extent to which a bank can normally increase its liabilities to other banks is set within its credit limit. When an individual bank in the domestic system gets into financial crisis, other banks tend to support in the hope of avoiding the contagious effect of failure on their own operations.

Capital structure is also affected by the relationship between debt and equity. According to Jensen (1986), firms use debt financing to reduce agency costs of free cash flow. The cash flow crisis more often than not arises when the management invests the fund beyond the optimal level. This, in turn, leads to enhanced resources under their control therefore more rewards in the form of bonuses, which are associated with the growth, and size of a given organization. The use of debt helps to curtail unnecessary spending. The board of directors' role in monitoring management investment resolution can be realized using similar principle. Correspondingly, the shareholder can monitor the management of the firm to shrink conflict of interest (Brailsford et al, 2002).

Among the factors that influence the leverage of most organisations is the dividend pay-out ratio. According to Rozeff (1982), the higher the dividend pay-out ratio the lower the agency and transaction charges which has motivated firms to have a preference on equity funding. Payment of dividends acts as a signal for future raise in profit, which in return leads to a decrease in the cost of equity funding (Anntoniou et al., 2008).
For this study, borrowing comprises of short-term obligations that are to be paid within a year and long term debts that are payable beyond one year. Inter Bank Borrowing was calculated using Total Net borrowing from other banks to total assets ratio.

2.4.4 Tier 1 and Tier 2 Capital

The banking industry in Kenya Capital is divided into three tiers. The first tier is the core capital that encompasses disclosed reserves and equity, which are the only stuff, normally disclosed in the financial statement of most countries as stipulated by Basel guideline. Second-tier capital is composed of

complementary capital that constitutes the reserves, which are concealed, hybrid instruments, general provision, subordinated debt and revaluation reserves. The final capital tier is comprised of the short-term capital, which covers the market risk or assists in the alleviation exposure of market risk. Short-term obligation is a constituent of third-tier (Basel Committee on Banking Supervision, 2005).

A reserve fund refers to the accumulated worth of past proceeds not yet paid out in dividends to shareholders. Since these earnings should be paid out in form of dividends, they are part of the owner‘s equity stake in the financial institution. According to the pecking order theory by Myers and Majluf (1984), an Organisation will exploit internal sources of funding, which are not expensive and easy to access. The existence of asymmetric information between outsiders and insiders of the firm is used to forecast a negative relationship between indebtedness and profitability. The theory supposes that outsiders have less information than managers and shareholders of the business. This was measured using Minimum core capital Ratio and capital adequacy Ratio.

2.5 Empirical Review

According to a study on the relationship between bank leverage ratios and measure of bank assets risk by Gropp and Heider (2008) the finding depicted that there exists a negative relationship, Flannery (2000) had undertaken parallel study on 20 largest U.S banks the finding was not in favour of the argument that bank leverage decision are determined by market demands. A number of studies have undertaken to analyze variation in capital levels across banks over time. Up to now they have not established a beyond question finding but Flannery and Rengan (2008) presented more compelling evidence against Equity cushion. Their finding showed that there is no correlation between bank asset volatility and excess the book capital over the cushion (Required Capital); this is not consistent with the regulatory view that the purpose of cushion is to guard the banks against unexpected risk in regards to regulatory capital prerequisite. These studies show the significance of being cautious when making elucidation in regards to the construal of the negative relationship between asset risk and bank leverage. Since well-capitalized banks may take less risk, to echo the risk preferences of managers or shareholders.

There are a number of studies that have been undertaken with regard to determinants of dividend policy in diverse industries across the globe. According to Pandey and Bhat (1994) on the determinants of dividend policy in the Indian banking diligence, they applied Linter’s replica. Their findings depicted that the present earnings and the preceding dividend pattern were the key determinants of dividend policy. Bodla et al (2006) findings supported their study, They used present income, lagged dividend, depreciation and capital expenses as variables but they noted that present earnings and lagged dividend were pertinent in regards to

decision of dividend policy but depreciation and capital expenditure were extraneous in regards to dividend decisions of banks. According to studies undertaken by HariBabu and Nancy Sahni (2014), Maladjian and Khoury (2014), Abdellaet al.(2016), Yu-Jen Hsiao and Tseng (2013), Dada et al. (2015), Kesto and Ravi (2015), Yimam (2016), Eng et al. (2013), Kinfe, T. (2011), Edet et al. (2014), Lim (2013), Mutairi and Omar (2009), Lagged dividend was found positive and noteworthy. However according to Dickens et al 2002 future income were found positive and significant.

Studies unfolding financial leverage as the determining factors of dividend pay-out ratio in the banking sector, have found the leverage to be negatively affecting dividend decisions. According to studies undertaken by Rizvi and Khare, (2011), Gul et al. 2012; Erick Keraka, 2012; Yimam, 2016) financial leverage unconstructively affect dividend pay-out decision this contrast a study by Felix Babatunde Dada et al on Nigerian Banks. (2015). Felix used the Debt to Equity Ratio as a measure of leverage.

Iwarere and Akinleye (2010) studied factors considered by Nigerian banks to decide on the optimal capital structure, they used a questionnaire survey on their study, their findings depicted that banks should make a decision on the optimal mix of capital, lessen debt issue and invest intensively in liquid assets and minimize tangible assets. The study on the correlation between leverage ratio, bank size, dividend pay-out ratio, and profitability by Aremu et al. (2013) in reference to the capital structure models and theories; showed that there is a strong correlation in regards to bank capital, size, dividend pay-out ratio, tax charges, risk and profitability risk, and tax charges.

2.5.1 Effect of Customer Deposits on Dividend Pay-out

The icon of the company to investors is more often than not built through dividend pay-out. Compensation of dividends depends on a number of variables among them is the financial leverage of the bank. According to Sindhu (2014), banks with high financial leverage tend to pay a high dividend ratio as compared with those with lower leverage. The level of financial levered is anchored on the deposit level where the higher the level the more the leverage level in the banking sector. Deposits amplify resources for banks to broaden their investment portfolio leading to more proceeds. The higher the profitability the more the shareholders will be rewarded with higher dividends.

The study by Sindhu (2014) also indicates that the convenience of cash did not have an impact on the dividend pay-out ratio in the Pakistan banking sector. He also showed that investments that are more lucrative were given predilection to be funded by external financing in the form of deposits rather than internal funds. Contradictory to the pecking order theory the banks in Pakistan continue to pay dividends to

shareholders as they accumulate supplementary deposits from the general public and to fund future investment (Saiful et al, 2017). Thus, the reason why the study considered customer deposit among other variables.

2.5.2 Effects of Inter Bank Borrowing on Dividend Pay-out

There are a number of studies that illustrate the relationship between debts and dividend pay-out ratio. A good case is, Allen et al. (2012) who described the relationship between dividend pay-outs and the level firms are financed by debt. They used lending data to illustrate the relationship between the intensity of reliance on funding from loan and firms' dividend pay-outs to safeguard the integrity of the superior claims on the assets of the firm. Bank's corporate governance mechanisms are considered as a complementary means to shrink the firm's agency problems. If a firm scrounge or uses debt to patch up dividends this gives rise to agency problems amid the management and the owners of the organisation. If the firm has a higher debt level, the management is likely to recommend lower dividend pay-out ratio.

Conversely, these results were pertinent to non-banking institutions nevertheless when it comes to the banking sector outside borrowing in the form of deposit is the key determinant of profitability. Demirgucet al., (1999) found that deposit is the main contributor to profitability in the banking industry. Athanasoglou et al., (2009) reached a analogous conclusion. There are prospect of dividend pay-out rise if the deposits are higher. Therefore, this study considered the effect of debts portion among other factors in the capital structure of commercial banks to dividend pay-out to the shareholders/ owners.

Aivaizan, et al., (2006), study on the relationship between public debt share, dividend smoothing policy, and bank debt. They established that firms with public debt were more probable to pay dividends as compared to firms with private debt. Because of the restraint of data availability, they used credit evaluation as a surrogate for public debt. The method was not accurate to that kind of study, particularly in the banking sector. Studies have shown that interbank lending is liable to be associated with fewer dividends as compared to borrowing from depositors who offer external finance (Farre-Mensa, Michaely and Schmaltz, 2015).

This study considered Interbank borrowing among other variables that were measured using Total net borrowing from other banks to total asset ratio.

2.5.3 Effect of Equity Capital on Dividend Pay-out Ratio

The financing verdict of an organization is reliant on its dividend policy (Sindhu, 2014). Besides, free cash flow has an influence on the allotment of dividends. There are numerous determinants of dividend pay-out ratio, which have been explored by varied scholars. Lintner's Model (1996) demonstrates that compensation of dividend can be expressed as a function of net income after tax and the preceding dividends that were paid. According to Barclays Smith and Watts (1995), the determinants of dividend policy include but not limited to signalling factors, size of the firm, investment opportunity, and the regulations. In the petroleum trade, dividend policy is indomitable by the agency problem and the risks and not the size or investment opportunities (Casey, 1997). Casey and Dickens (2000) shore up the concept of investment opportunities and agency problem as recommended by (Sidhu 2014). In this case, the risk and size of the firm were not considered as the determinants of dividend policy.

Other factors that determine dividend payment include risk, size, investment prospect, dividend record, capital adequacy, signalling and ownership (Dickens, Casey and Newman, 2002). Conversely, Al Ajmi (2010) used different determinants of dividend pay-out ratio, which include; cash flow per share, earnings per share, market to book value, risk, the ratio of capital to the asset, size of the firm and the dividend per share. Further, the study by Nishat (2013) considered earnings, cash flow per share previous dividend and size of the firm as the determinants of the dividend pay-out ratio. All these determinants are pertinent variables and cannot be derelict. Dickens, Casey, and Newman (2002) used investment opportunities, capital adequacy, size, signalling, ownership, dividend narration, and risk to explicate dividend payments.

In this study the capital adequacy ratio, was analyzed using multiple regression model to get the upshot of Tier 1 and Tier 2 capital on a dividend pay-out ratio of public listed commercial banks in Kenya.

2.6 Research Gap

Ever since the formulation of the foremost theory on the capital structure by Modigliani and Miller in 1958, many theories have evolved. There are also misapprehensions since the capital structure and dividend policies are determined by factors, which are interconnected and cannot be detached. A study in the UK by Al Shabib and Remesh, (2011) on capital structure and dividend pay-out ratio established that there is no noteworthy connection between debt and dividend pay-out ratio. This result is in contrast with the results by Al-Kuwari, (2009) who established a significant constructive relationship between the two. According to Ogebe and Kemi (2013), a decision on the capital structure of a firm is very vital since it determines its worth and survival. There is a significant difference between dividend behaviour for a firm operational in an emerging bazaar compared to dividend policy in developed nations (Adaoglu, 2000).

In addition, Adaoglue, 2000 found that firms operating in developed markets have a stable dividend policy compared to those operating in emerging markets, which had an unsteady dividend policy. yet, Aivazialet al, (2003) affirmed that some firms in the US market exhibit unstable dividend policy. The only difference is that firms operating in up-and-coming markets are more fretful with a few variables, which are indicators of financial constrain in their operating surroundings. Aivazial also showed that most firms operating in emerging markets seem to be affected by asset mix, which is related to over-reliance on bank loans under the bank-dominated setting. However, this is only applicable in non-banking institutions (Brantford et al, 2002).

The empirical evidence on capital structure provides information correlating capital structure and dividend policy as being dynamic. Most of the research conducted focused on the non-banking sector. consequently, the need for continuous research to solve this dividend puzzles. Therefore, this study on the effect of capital structure on dividend pay-out policy for public listed commercial banks in Kenya is being undertaken. The results are important for managers, investors and employees of commercial banks to make relevant decisions in regards to capital structure and dividend policy.

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CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This section outline the study model, research design and the variables explored to unearth the effect of capital structure on the dividend pay-out ratio of public listed commercial banks in Kenya.

3.2 Research Design

This study adopted descriptive research methodology. Investigations, which are carried out to establish a given relationship between two or more variables in order to get cause and effect inference is referred to as descriptive research design (Konthari, 2007). Varied components of the capital structure were used as independent variables to examine the parameters and establish their effect of dividend pay-out ratio on bank strength. In this case, the dividend pay-out ratio was the dependent variable while the components of the Bank capital structure were the independent variables.

Descriptive measures bring about means, maximum, minimum, standard error of approximate, skewness, and kurtosis. To gauge central tendency the study used the mean which illustrate the most distinctive values on the data set. The standard error in regard to statistics is a measure of precision within a set of values. To quantify symmetry the study used Skewness. According to Konthari, (2007) data on the distribution table is believed to be symmetrical if it looks the identical to the left and right of the centre point. To assess weakness and flatness relative to a normal distribution table Kurtosis was used.

3.3 Study Population

The target population was all the eleven public listed commercial banks in Kenya by NSE as of December 2017 over a period of seven years from 2011 up to 2017. The listed banks forfeit dividends and their market value capital structure is easier to establish. It was also easier to obtain data from public listed companies as compared to private ones because of obligatory annual reporting regimes, which is tied to dividend outlay. A census survey was conducted where data is collected from the study population (Konthari, 2007).

3.4 Data collection

Secondary data for the public listed commercial banks will be collected from the CBK and NSE from 2011 to 2017, Central Bank of Kenya (CBK) on a regular basis publishes the supervisory report for all the banks in Kenya, the report typically contains the audited financial statement of all the banks. Nairobi Security

Exchange has made it obligatory for all the banks to submit and publish their audited annual financial statements. From these two sources, we gathered all the crucial information for the purpose of this study. The data was obtained from the NSE database, as it is a prerequisite for public listed commercial banks to publish their financial statements for the common public. The audited financial statements were used to uphold veracity.

3.5 Data Analysis and Presentation.

Data were analyzed based on the variables of capital composition. A secondary data assortment sheet was used in this study refer to addendum A2 and A3. The collected data was analyzed by means of inferential statistics of correlation and regression analysis comparing customer deposit to dividend pay-out ratio, borrowings to dividend pay-out, debt/ equity ratio to dividend pay-out ratio. The regression model provides a forecast on dividend pay-out (dependent) blueprint depending on the variables of Capital Structure (Independent Variable) of public listed commercial banks in Kenya.

3.6 Model Specification

The component of analysis was the 11 public listed Commercial banks as of December 2017. The information collected was analyzed using the Statistical Package for Social Science (SPSS) version 16.0. This study adopted the regression model in order to successfully analyze the effect of capital structure on the dividend payout ratio of public listed commercial banks in Kenya. The different components analyzed incorporate Minimum absolute core capital; Total Capital (Tier 1 and Tier 2), Interbank borrowing and Customer Deposits. The study used census surveys for the reason that the population of the study is less than 30. Data was collected on the compilation sheet as Appendix A. Data was analyzed using multiple regression analysis to get the effect of different variables on the dividend pay-out proportion and conclusions drawn based on the result.

Content analysis was used for qualitative data. These are the values for the regression equation for predicting the dependent variable from the independent variable. The regression model was as follows:

$Y = \alpha + \beta 1\ X1t + \beta 2\ X2t + \beta 3X3t + \beta 4X4t + e$

Where Y = the dividend pay-out ratio measured by Dividend/ Net earnings

α = constant which is the intercept of the regression equation

$\beta 1$, $\beta 2$, = the slope which represents the coefficients of the independent variables

X1=Minimum absolute core capital is measured by the Tier 1 capital ratio.

X2=Total Capital (Tier 1 + Tier 2) this is measured by Capital adequacy ratio.

X3= Customer Deposit measured by annual average customer deposits

X4= Inter bank borrowing measured by total annual amount

e = error term which echo other factors that influence dividend pay-out ratio

The strength of the association amid capital structure and dividend pay-out ratio of public listed commercial banks was tested using the correlation – coefficient. According to KARL Pearson the correlation coefficient(r) should range from -1 to +1, this measures were used to show the strength of the bond between capital structure variables and dividend pay-out ratio on the same where; 1 shows that there is a perfect negative relationship, range between -5 to -1 is an indication of a strong relationship and a value between -0.5 to 0 is an indication of coexistence of a negative weak relationship. On the other hand, 0 to 0.5 is an signal of a weak positive relationship, while 0.5 to 1 is an signal of a strong positive relationship.

The study used a 95% significant level, this means that a variable with a p-value less than 0.05 has a significant relationship with the dependent variable with a p-value of more than 0.05 show that the relationship is insignificant.

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CHAPTER FOUR

DATA ANALYSIS, PRESNTATION AND INTERPRETATION

4.1 Introduction

This chapter presents data analysis of the information that was collected to ascertain the effect of capital structure on the dividend pay-out ratio of public listed commercial banks in Kenya. This chapter bring about the following sections, descriptive statistics, correlation analysis, and regression analysis on each study objective. The aim of this study was to establish the effect of Capital on dividend pay-out ratio of public listed commercial banks in Kenya between the year 2011 and 2017. Information was obtained from yearly audited financial reports publication for the 11 listed commercial banks based on the study variables for the same period.

4.2 Presentation of Findings

4.2.1 Dividend Pay-out Ratio of Public Listed commercial Banks in Kenya

This study sought to establish dividend pay-out ratio of public listed commercial banks over the 7 year period between 2011 and 2017. The result were as below;

Table 4.2.1 Dividend Pay-out Ratio.

Institution	2011	2012	2013	2014	2015	2016	2017	Mean
National Bank of Kenya	0.1250	0.1310	0.2870	0.1270	0.3330	0.1120	0.3270	0.2060
Barclays Bank of Kenya	0.1010	0.2220	0.4350	0.3560	0.6480	0.5170	0.5870	0.4094
CFC STANBIC BANK	0.0000	0.0730	0.4500	0.1170	0.2120	0.2180	0.3110	0.1973
Cooperative bank	0.2590	0.2700	0.2300	0.3050	0.3340	0.4280	0.3250	0.3073
Equity Bank	0.5000	0.3830	0.6540	0.1130	0.7210	0.2350	0.6540	0.4657
Diamond Trust Bank	0.2710	0.1150	0.4180	0.3750	0.1060	0.1050	0.5640	0.2791
Kenya Commercial bank	0.2870	0.4630	0.0880	0.1020	0.1700	0.2370	0.2360	0.2261
Standard Charted Bank	0.1250	0.2700	0.4900	0.3740	0.6230	0.5570	0.2310	0.3814

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NIC Bank	0.0900	0.1660	0.1600	0.1720	0.5460	0.1290	0.3250	0.2269
National Housing Corporation	0.4440	0.4350	0.1660	0.1370	0.1100	0.1200	0.5340	0.2780
I & M BANK	0.2200	0.1930	0.1680	0.2370	0.2470	0.1230	0.3460	0.2191
Mean	**0.2202**	**0.2474**	**0.3224**	**0.2195**	**0.3682**	**0.2528**	**0.4036**	

Based on the above statistics, on the summative the lowest dividend pay-out ratio was a mean of 0.2195 in the year 2011 and the highest ratio was a mean of 0.4036 in the year 2017. This demonstrates that there is oscillation in dividend pay-out ratio over the 7 year period (as indicated by the mean as per tables 4.1 above). These also show a raise in dividend pay-out ratio in the year 2011 with an average of 0.2202 to a proportion of 0.4036 in the year 2017. Low dividend pay-out ratio in the year 2011 was ascribed by a number of factors, the same year is the time when the monetary Policy committee reviewed domestic economic circumstance, the central bank stiffen monetary policy stance. The central bank rate was increased from 12% to 18 % by the end of 2011; the major rationale for the same was to slow the credit demand by the private sector. The same period interbank Borrowing rate was raised to 21.75% in the year 2011 from 1.18 % in the year 2010, on average Interest rate paid by banks on client deposits increased from 3.59% in the year 2010 to 6.99% in the year 2011, this shows that banks increased interest rate on customer deposit to be a magnet for more deposits (Central bank supervisory report, 2011). The higher dividend pay-out ratio in the year 2017 is ascribed by the prologue of interest capping rate, Reduced inter bank borrowing rates, the innovation on the mobile lending and stern supervisory and compliance needs by the central bank of Kenya.
The above statistics also show that in each bank dividend pay-out ratio is never stable but on the amassed the bank with the least possible ratio over the 7 year interlude was CFC Stanbic Bank with an average of 0.1973 while the bank with uppermost mean was Equity Bank with a mean of 0.4657. This is attributed by the customer deposit since for the customer deposit data equity bank has the highest mean in regards to customer deposit over the seven year interlude. This shows that each bank has its own dividend pay-out policy.

4.2.2 Inter Bank borrowing of public listed commercial banks

This study sought to establish Inter Bank Borrowing of public listed commercial banks over the 7 year period between 2011 and 2017. The result were as bellow

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Table 4.2.2 Inter Bank Borrowing of Public Listed Commercial Banks in Kenya

	Year	Inter bank Borrowing Ratio						
Institution	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**Mean**
National Bank of Kenya	0.0003	0.0003	0.0029	0.0003	0.0002	0.0002	-	**0.0006**
Barclays Bank of Kenya	0.0110	0.0122	0.0436	0.0588	0.0094	0.0959	0.1063	**0.0482**
CFC STANBIC BANK	0.0472	0.0468	0.0378	0.0395	0.0311	0.0186	0.0160	**0.0339**
Cooperative bank	0.0014	0.0228	0.0443	0.0640	0.0563	0.0563	0.0650	**0.0443**
Equity Bank	0.0440	0.1093	0.0198	0.0260	0.1002	0.0970	0.0230	**0.0599**
Diamond Trust Bank	0.0499	0.0281	0.0963	0.0878	0.0962	0.0673	0.0296	**0.0650**
Kenya Commercial bank	0.0754	0.0426	0.0346	0.0581	0.0361	0.0386	0.0913	**0.0538**
Standard Charted Bank	0.0363	0.0704	0.0682	0.0600	0.0443	0.0406	0.0506	**0.0529**
NIC Bank	0.0024	0.0337	0.0300	0.0985	0.0926	0.1178	0.0823	**0.0653**
National Housing Corporation	0.0003	0.0003	0.0029	0.0003	0.0002	0.0002	0.0090	**0.0019**
I & M BANK	0.0318	0.0373	0.0820	0.0712	0.0582	0.0385	0.0527	**0.0531**
Mean	**0.0273**	**0.0367**	**0.0420**	**0.0513**	**0.0477**	**0.0519**	**0.0478**	

Based on the above data, on the aggregate the lowest Inter Bank Borrowing Ratio was a mean of 0.0273 in the year 2011 and the highest ratio was a mean of 0.0519 in the year 2016. This shows that there is fluctuation in interbank borrowing ratio over the 7 year period (as indicated by the mean as per tables 4.2 above). This also shows an indication of an increase in Interbank borrowing in the year 2011 with a mean of 0.0273 to a ratio of 0.0519 in the year 2016. A low inter bank borrowing rate in the year 2011 is due to increased Inter bank borrowing rate from 1.18% in the year 2010 to 21.75% in the year 2011, also the central bank lending rate increased from 12% to 16% respectively.

The above data also show that in each bank inter borrowing ratio is never constant but on the aggregate the bank with the lowest ratio over the 7 year period was National bank of Kenya with a mean of 0.0006 while the bank with highest mean was NIC bank with a mean of 0.0653 This demonstrate that NIC Bank borrowed more from other banks to enable its lending activities. They didn't relay majorly on client deposit but on Inter bank Borrowing.

4.2.3 Customer Deposit of public listed commercial banks

This study sought to establish client Deposit of public listed commercial banks over the 7 year interlude between 2011 and 2017. The result were as bellow

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Table 4.2.3 Customer Deposit

	Year	Customer Deposit Ksh Millions						
Institution	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**Mean**
National Bank of Kenya	56,728.00	55,191.43	78,508.00	104,458.00	110,864.00	97,581.00	94,544.00	**85,410.63**
Barclays Bank of Kenya	124,207.00	137,915.39	160,125.00	176,915.00	188,820.00	198,515.00	186,245.00	**167,534.63**
CFC STANBIC BANK	74,335.00	75,632.93	111,181.00	102,244.00	109,132.00	122,888.00	153,009.00	**106,917.42**
Cooperative bank	142,705.00	162,267.23	176,614.00	219,416.00	266,614.00	256,796.00	285,566.00	**215,711.18**
Equity Bank	210,174.00	140,285.67	237,213.00	276,750.00	237,025.00	277,135.00	440,164.00	**259,820.95**
Diamond Trust Bank	122,328.00	72,505.12	158,682.00	202,560.00	126,577.00	170,421.00	213,349.00	**152,346.02**
Kenya Commercial bank	121,774.00	223,493.28	84,964.00	102,060.00	347,564.00	386,391.00	298,703.00	**223,564.18**
Standard Charted Bank	59,772.00	140,524.85	157,684.00	161,904.00	174,462.00	191,082.00	190,469.00	**153,699.69**
NIC Bank	62,009.00	77,466.04	84,033.00	91,977.00	104,998.00	103,402.00	130,561.00	**93,492.29**
National Housing Corporation	18,674.00	22,968.00	26,589.00	36,310.00	41,888.00	38,155.86	36,981.00	**31,652.27**
I & M BANK	56,944.00	65,640.24	74,846.00	87,185.00	104,466.00	118,553.00	132,801.00	**91,490.75**
Mean	**95,422.73**	**106,717.29**	**122,767.18**	**141,979.91**	**164,764.55**	**178,265.44**	**196,581.09**	

Based on the above data, on the aggregate the lowest total annual customer deposit was a mean of Ksh 95,422,730,000 in the year 2011 and the highest ratio was a mean of 196,581,090,000 in the year 2017 Customer deposit has been increasing from the year 2011 to 2017.

The above statistics also show that in each bank customer deposit has been growing each year and it is never constant but on the summative the bank with the least possible value over the 7 year interlude was National Housing Corporation with a mean of Ksh 31,652,270,000 while the bank with uppermost mean was equity bank with a mean of 259,820,950,000. This confirms that equity is mostly financed by customer deposit to facilitate its lending activities. This attributes to increased profit hence the highest in regards to dividend pay-out ratio as compared to other banks.

4.2.4 Core Capital to Risk weighted assets Ratio of public listed commercial banks

This study sought to establish core capital to risk weighted asset ratio of public listed commercial banks over the 7 year interlude between 2011 and 2017. The results were as below.

Table 4.2.4 Tier 1 Capital (Minimum Absolute Core Capital)

	Year	Core Capital to Risk weighted assets Ratio						
Institution	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**Mean**
National Bank of Kenya	0.2793	0.2727	0.2275	0.1286	0.1300	0.1136	0.0398	0.1702
Barclays Bank of Kenya	0.2410	0.2269	0.1659	0.1845	0.1580	0.1572	0.1591	0.1847
CFC STANBIC BANK	0.1259	0.2049	0.1820	0.1844	0.1595	0.1607	0.1580	0.1679
Cooperative bank	0.1604	0.2026	0.1566	0.1460	0.1452	0.1625	0.1647	0.1626
Equity Bank	0.1990	0.1986	0.1868	0.1706	0.1464	0.1439	0.1487	0.1706
Diamond Trust Bank	0.1231	0.1413	0.1855	0.1517	0.1484	0.1622	0.1562	0.1526
Kenya Commercial bank	0.1536	0.2130	0.1766	0.1682	0.1411	0.1685	0.1582	0.1685
Standard Charted Bank	0.1421	0.1630	0.1749	0.1581	0.1753	0.1751	0.1732	0.1660
NIC Bank	0.1498	0.1560	0.1482	0.1437	0.1452	0.1722	0.1669	0.1546
National Housing Corporation	0.2142	0.1913	0.1380	0.1112	0.1537	0.1573	0.1549	0.1601
I & M BANK	0.1812	0.1698	0.1507	0.1577	0.1705	0.1663	0.1717	0.1669
Mean	**0.1791**	**0.1946**	**0.1721**	**0.1550**	**0.1521**	**0.1581**	**0.1501**	

Based on the above statistics, on the aggregate the least Core capital to risk weighted asset ratio was a mean of 0.1501 in the year 2017 and the uppermost ratio was a mean of 0.1791 in the year 2011. This shows that there is a decline in tier capital ratio over the years. The decline is ascribed to slow growth in capital in comparison with the growth in Total risk weighted asset over the seven years period. This can also be described by the high raise in customer deposits in relationship to core capital over the seven year period.

The above facts also show that tier 1 capital ratio is never constant but on the aggregate the bank with the lowest ratio over the 7 year period was Diamond trust bank with a mean of 0.1526 while the bank with highest mean was Barclays bank of Kenya with a mean of 0.1847 this is 15.26% and 18.47 % respectively in regards to minimum capital requirement. This shows that as customer deposit increases and legal requirements are being strengthened banks have turn out to be more focused on increasing risk weighted

asset. All banks are mandate to maintain a minimum capital ratio of 8 % a necessity set forth by the central bank of Kenya to meet Basel 2 accord at the time, the above statistics demonstrate that all the banks maintained a minimum absolute core capital ratio exceeding the one set by the Central Bank of Kenya.

4.2.5 Total Capital to Risk Weighted Assets of public listed commercial banks

This study sought to establish total capital to risk weighted assets of public listed commercial banks over the 7 year period between 2011 and 2017. The results were as below.

Table 4.2 1 Tier 11 Capital Ratio (Total Capital to Risk Weighted Asset)

	Year	Total Capital to Risk Weighted Assets						
Institution	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**Mean**
National Bank of Kenya	0.2918	0.2842	0.2415	0.1393	0.1399	0.1189	0.0542	0.1814
Barclays Bank of Kenya	0.2781	0.2577	0.1731	0.1866	0.1839	0.1786	0.1803	0.2055
CFC STANBIC BANK	0.1904	0.2554	0.2100	0.2201	0.1870	0.1829	0.1757	0.2031
Cooperative bank	0.1642	0.2379	0.2106	0.2165	0.1452	0.2277	0.2268	0.2041
Equity Bank	0.2069	0.3010	0.2245	0.2101	0.1625	0.1547	0.1612	0.2030
Diamond Trust Bank	0.1430	0.1984	0.2357	0.1771	0.1769	0.1850	0.1852	0.1859
Kenya Commercial bank	0.2166	0.2272	0.2105	0.1895	0.1536	0.1989	0.1654	0.1945
Standard Charted Bank	0.1678	0.1804	0.2080	0.1982	0.2116	0.2091	0.1901	0.1950
NIC Bank	0.1589	0.1644	0.1482	0.2086	0.2048	0.2163	0.1946	0.1851
National Housing Corporation	0.3403	0.2355	0.2158	0.1509	0.1813	0.1769	0.1700	0.2101
I & M BANK	0.1928	0.1734	0.1902	0.1885	0.1921	0.1815	0.1900	0.1869
Mean	**0.2137**	**0.2287**	**0.2062**	**0.1896**	**0.1763**	**0.1846**	**0.1721**	

Based on the above statistics, on the aggregate the lowest Total capital to risk weighted asset ratio was a mean of 0.1721 in the year 2017 and the highest ratio was a mean of 0.2137 in the year 2011. This shows that there is a decline in tier11 capital ratio over the years. This is allied with increased risk associated with increase in customer deposit among the banks in Kenya over the seven years period.

The above information also show that tier 11 capital ratios is never steady but on the aggregate the bank with the least possible ratio over the 7 year period was National Bank of Kenya bank with a mean of 0.1814 while the bank with maximum mean was National Housing Corporation with a mean of 0.2101 this is 18.14% and 21.01 % respectively. This shows that National Housing Corporation has the utmost risk weighted asset to Total capital ratio, This explain the reason why National Housing Corporation relies mostly in securities to finance lending to generate its cash flows.

4.3 Descriptive Statistics

The pertinent results are presented in Table 4.2 1 bellow

Table 4.3 1 Descriptive Statistics of the Study Variables

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Inter Bank Borrowing	7	0	0	.05	.008	-2.086	.794	4.819	1.587
Customer Deposit	7	95	196	143.14	37.844	.115	.794	-1.544	1.587
Tier 1 Capital Ratio	7	0	0	.17	.017	.936	.794	-.237	1.587
Tier 2 Capital Ratio	7	0	0	.20	.021	.489	.794	-1.060	1.587
Dividend Pay Out Ratio	7	0	0	.29	.074	.635	.794	-1.454	1.587
Valid N (listwise)	7								

Source: Author (2019)

Table 4.2.1 illustrate the descriptive statistic results for the study variables as follows the mean of core capital to risk-weighted assets (Tier 1 Capital ratio) was 0.17and the minimum and maximum were 0.15 and 0.195 correspondingly and with a standard deviation of 0.017. The average for total capital to the risk-weighted asset ratio (Tier 2 Capital ratio) also called capital adequacy ratio was 0.20 with a minimum and maximum of 0.172 and 0.229 correspondingly and with a standard deviation of 0.021. The mean for customer deposit was 143.1Million and with a minimum and maximum of 95 and 196 respectively and with a standard deviation of 37. The dividend pay-out ratio had a mean of 0.29058 and with a minimum, maximum and standards deviation of 0.22, 0.404 and 0.0742 in that order.

4.4 Correlation Analysis

In order to establish if there subsist a liaison between capital structure variables and dividend pay-out ratio, a number of statistical tests have been conducted. The main statistical software used was SPSS version 16.0 and the relationships between variables were measured using Pearson correlation. According to Konthari, (2007) for one to gauge the vigour of the relationship between variables, Pearson correlation is regarded as the preeminent quantify. The correlation coefficient results range between -1 and 1. Where -1 shows that there subsist a perfect negative linear relationship between study variables and the correlation coefficients of 1 imply a perfect positive relationship between the study variables. If the correlation coefficient is Zero it implies that there exists no relationship between the study variables. It is seldom a case for the correlation co-efficient to take one of the spot described above.

Even though the correlation coefficient is used in this sort of study, it has a few limitations amongst others; the foremost limitation is that it only shows the strength of the linear relationship that means the nonlinear relationship is excluded in the analysis. Apart from showing that there is a relationship between variables it does not demonstrate the causality of the relationship amongst the study variables since it merely specify that a relationship exists but goes not give a cause-effect of given variable.

Table 4.4 Correlation Analysis

		Interbank Borrowing	Tier 1 Capital Ratio	Tier 2 Capital Ratio	Dividend Pay Out Ratio	Customer Deposit
Inter Bank Borrowing	Pearson Correlation	1	-.552	-.556	.327	.695
	Sig.(2-tailed)		.199	.195	.474	.083
	N	7	7	7	7	7
Tier 1 Capital Ratio	Pearson Correlation	-.552	1	.980**	-.511	-.848*
	Sig.(2-tailed)	.199		.000	.241	.016
	N	7	7	7	7	7
Tier 2 Capital Ratio	Pearson Correlation	-.556	.980**	1	-.623	-.914**
	Sig.(2-tailed)	.195	.000		.135	.004
	N	7	7	7	7	7

Dividend Pay Out Ratio	Pearson Correlation	.327	-.511	-.623	1	.640
	Sig.(2-tailed)	.474	.241	.135		.121
	N	7	7	7	7	7
Customer Deposit	Pearson Correlation	.695	-.848*	-.914**	.640	1
	Sig.(2-tailed)	.083	.016	.004	.121	
	N	7	7	7	7	7

Source: Author (2019)

**. Correlation is noteworthy at the 0.01 level (2-tailed).

*. Correlation is noteworthy at the 0.05 level (2-tailed).

From table 4.4 above all the predictors' variables findings show that we either have a positive or a negative relationship between them. The strongest is 0.640 being indicated by annual customer deposit, however there was a strong negative relationship between Total Capital to Risk-weighted average and dividend pay-out proportion. According to Wong and Hiew (2005) if a correlation coefficient value (r) ranges from 0.10 to 0.29 the relationship is considered weak, if the relationship array between 0.30 to 0.49 is presumed medium and if the range is above 0.50 to 1.0 is considered strong.

4.5 Regression Analysis

4.5.1 Test of the Model and Data

The study adopted regression model in order to establish the relationship between study variables on capital structure and dividend pay-out ratio of public listed commercial banks in Kenya. This examination is allied to the correlation coefficient but it includes other factors. According to Konthai (2007) regression analysis aid one to predict the value of a given variable on the basis of the other. There exist two types of regression analysis this is simple linear regression and multiple regression testing. In regards to this study because there exist more than one independent variable, the study adopted multiple regression model. A multiple regression analysis involve all capital structure variables (independent variables) into a single test and compares them with the dividend pay-out ratio (dependent variable) of public listed commercial banks in Kenya. To test if the data is fit for analysis using regression analysis Kurtosis and Skewness were incorporated in the descriptive statistics to aid on the same. Based on the result in Tables 4.4 above, the data was fit for analysis.

A regression equation is used in the test was as follows:

Table 4.5 1 Regression Analysis Results of the Study Variables

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.842[a]	.709	.126	.069	2.202

Source: Author (2019)

a. Predictors: (Constant), Tier 2 Capital Ratio, Inter Bank Borrowing, Customer Deposit, Tier 1 Capital Ratio

b. Dependent Variable: Dividend Pay Out Ratio

From tables 4.5 1 above the coefficient of determination between the study variables are incredibly strong at R=0.842. This points out that the relationship between Core Capital to Total Deposit Liabilities, Total Capital to Risk-Weighted Assets, Core Capital to Risk-weighted assets Ratio to dividend pay-out ratio is very strong.

The regressions analysis result in this study shows that a proportionate deviation in the dependent variable can be explained by the changes in the independent variable. The results confirm that R Squire is 0.709, that is Core Capital to Total Deposit Liabilities, Total Capital to Risk-Weighted Assets, Core Capital to Risk-weighted assets Ratio explain 70.9% change in dividend pay-out ratio while 29.1% are unexplained variations in regards to independent variables.

ANOVA test depicts a noteworthy relationship between the dependent and independent variables as shown below.

Table 4.5 2 ANOVA TEST

ANOVA[b]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	.023	4	.006	1.216	.498[a]
Residual	.010	2	.005		
Total	.033	6			

a. Predictors: (Constant), Tier 2 Capital Ratio, Inter Bank Borrowing, Customer Deposit, Tier 1 Capital Ratio

b. Dependent Variable: Dividend Pay Out Ratio

From the ANOVA analysis on table 4.5 2, the p-value of 0.498 demonstrate that there is a correlation between the predictor variables (Customer Deposit, Core Capital to Risk-weighted assets Ratio, Total Capital to Risk Weighted Assets, Total Net borrowing from Other banks to Total Asset ratio) a dependent variable (Dividend pay-out ratio). F ratio shows the variance amid the groups divided by the variance in the groups. The higher the F ratio the higher the variability between the groups contributed by Independent variable than there is in each group (Error Term). The p-Value of 0.498 is less than 0.05 of significant level.

Table 4.5 3 Regression Equation coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	1.315	1.195		1.101	.386	-3.826	6.457
InterBank Borrowing	2.952	6.005	.336	.492	.672	-22.884	28.789
Customer Deposit	-.002	.003	-1.188	-.668	.573	-.017	.013
Tier 1 Capital Ratio	18.375	13.522	4.142	1.359	.307	-39.804	76.554
Tier 2 Capital Ratio	-19.754	14.633	-5.583	-1.350	.310	-82.716	43.209

Source: Author (2019)

a. Dependent Variable: Dividend Pay Out Ratio

From figure 4.2.5 above the values for predicting dependable variable and independent variable using the regression equation will be as below:

$Y = \alpha + \beta 1\ X1t + \beta 2X2t + \beta 3X3t + \beta 4X4t + e$

Where Y = the dividend pay-out ratio measured by Dividend/ Net income

α = constant which is the intercept of the regression equation

$\beta 1, \beta 2,$ = the slope which represents the coefficients of the independent variables

X1=Minimum absolute core capital is measured by the Tier 1 capital ratio.

X2=Total Capital (Tier 1 + Tier 2) this is measured by Capital adequacy ratio.

X3= Customer Deposit measured by annual average customer deposits

X4= Inter bank borrowing measured by total annual amount

e = error term which reflects other factors that sway dividend pay-out ratio

The regression model is as follows

$Y=1.315+18.375X1-19.754X2-0.002X3 + 2.952X4$

Where:

Constant =1.315, this shows that if Core Capital to Total Deposit Liabilities, Total Capital to Risk-Weighted Assets, Core Capital to Risk-weighted assets Ratio are rated at zero, the dividend pay-out ratio will be 1.315; X1=18.375, illustrate that a unit increase in Tier 1 Capital ratio (Minimum absolute core capital) results in 18.375 increase in dividend pay-out ratio, X2 = -19.754, illustrate that a unit increase in capital adequacy ratio result to a decrease of 19.754 in dividend pay-out ratio. X 3=-0.002, this demonstrate that a unit increase in Total customer deposit will result in 0.002 decreases in the dividend pay-out ratio. X 4= 2.952, this demonstrate that a unit increase in Total Net borrowing from other banks to Total assets ratio (Inter bank Borrowing) will result in 2.952 increase in the dividend pay-out ratio.

4.5 Summary of Data analysis and findings

4.5.1 Minimum Absolute Core capital and Dividend Pay-out Ratio

Tier 1 Capital ratio also well-known as minimum absolute core capital has a strong negative relationship of 0.511 at a 95% Confidence level. Aremu et al (2013) in allusion to capital structure model and theories their finding depicted that there is a strong correlation in regards to bank capital size and dividend pay-out ratio. This is consistent with this study given that we have a strong negative relationship amid two variables this is Tier 1 Capital Ratio.

Table 4.2.5 shows that at a 95% confidence level a unit increase in Tier 1 Capital ratio (Minimum absolute core capital) results in 18.75 increases in the dividend pay-out ratio. This shows that if banks increase there equity capital they are likely to pay higher dividends but as the same instant they need to maintain a minimum capital higher than the legal needs. This explains why the majority banks in Kenya have a higher margin or buffer capital over the minimum capital to cater to the same.

4.5.2 Total Capital Ratio and Dividend Pay-out Ratio

Capital Adequacy Ratio (Tier 2 Capital ratio) has a negative strongest relationship of -0.623. This is moreover coincides with a study by Aremu et al (2013) in regards to capital structure model and theories their result showed that there is a strong correlation in regards to bank capital size and dividend pay-out ratio. The study finding depict that the Capital Adequacy ratio variable can elucidate the banking sector's dividend pay-out ratio. The finding of the study point out that at a 95% confidence level a unit increase in Tier 1 Capital ratio (capital adequacy ratio) results in 19.754 decreases in the dividend pay-out ratio. This shows that bank will pay lower dividend or increase retained earnings to meet the capital requirement and to increase capital adequacy ratio.

4.5.3 Customer Deposit and Dividend Pay-out Ratio

The study established that Customer deposit has a strong relationship of 0.640 at 95% Confidence level. At 5% significant level Tables 4.2.5 shows that a unit increase in total annual customer deposit will result in 0.002 decreases in the dividend pay-out ratio. According to Shindhu, (2014) in the banking industry the most lucrative projects are mostly financed by external funding such as deposits and no internal financing . This goes not in favour of the pecking order theory. Given that the banks will pay dividend to shareholders. The proceeds is dependent on accumulated deposit to finance major projects.

4.5.4 Interbank Borrowing and Pay-out Ratio

The study established that Inter bank borrowing has a medium weak positive relationship of 0.327 at 95% Confidence level. According to a study on the relationship between bank leverage ratio and measure of bank assets risk by Gropp and Hider (2008) depicted that there exist a negative relationship between leverage and dividend pay-out ratio however in our findings, we can detect that there is a weak positive relationship between Inter bank borrowing and dividend pay-out ratio. According to Shindhu (2014) banks with more financial leverage have a propensity to pay higher dividends ratio as compared to those leveraged. This is consistent with our case since our findings show that there exists a positive frail relationship between Inter bank borrowing and dividend pay-out ratio when measured among the study variables at 5% significant level.

At 5% significant level Tables 4.2.5 shows that a unit increase in interbank borrowing will result in 2.95increase in the dividend pay-out ratio

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CHAPTER FIVE

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a synopsis of the findings based on chapter four as per the study objectives. The key objective of the study was to establish the effect of Capital structure on the dividend pay-out ratio of public listed commercial banks in Kenya. along with the specific objective which entails; to assess the effect of Minimum absolute core capital (Tier 1 Capital)on dividend pay-out ratio ,to assess the effect of Total Capital (Tier 1 and 2) on dividend pay-out ratio ; to assess the effect of customer deposit on dividend pay-out ratio of public listed commercial banks in Kenya and to assess the effect of Interbank Borrowing on the dividend pay-out ratio of listed commercial banks in Kenya. The chapter presents the conclusion and commendation to the study.

5.2 Answers to Research Questions

According to this study, the findings depicts that there exists a relationship amid capital structure and dividend pay-out ratio of public listed commercial banks in Kenya. Erstwhile studies undertaken in other countries in regard to the relationship between capital structure and dividend pay-out ratio but not attempt to establish the reaction has revealed that there exist a relationship between the capital structure and dividend pay-out ratio. The most important objective of this study is to establish the effect of Capital structure on the dividend pay-out ratio of public listed commercial banks in Kenya. The study result confirms that Capital structure has a positive significant effect on their dividend pay-out ratio of public listed commercial banks in Kenya for the seven years period (2011-2017).

5.2.1 Minimum absolute core capital and Dividend Pay-out Ratio

Does the research outcome respond to the query “what is the effect of Minimum absolute core capital on dividend pay-out ratio in public listed commercial banks in Kenya?”

Yes, from the study at 95% degrees of freedom there is a strong negative relationship between tier 1 capital ratio (minimum absolute core capital) and dividend pay-out ratio of public listed commercial banks in Kenya. we can say that given that Tier 1 Capital ratio caters for Risks such as Credit risk, market risk, and operational risk, commercial listed banks will be forced to pay more dividend to ensure that there is stability since Tier 1 capital ratio is a measure of banks financial strength and ability to absorb losses with the resources they have without being insolvent or waiting for government bailout. So an increase in core capital

will result to high dividend pay-out ratio so according to this study if absolute minimum capital is amplified by a unit dividend pay-out ratio will raise by 18.375.

5.2.2 Total Capital Ratio and Dividend Pay-out Ratio

Does the research result answer the query, "What is the effect of Total capital (Tier 1 and 2) on dividend pay-out ratio of public listed commercial banks in Kenya?"

Yes, from the study at 5 % significant level Capital Adequacy Ratio (Tier 2 Capital ratio) has a negative strongest relationship of -0.610. The finding of the study indicates that at a 5% significant level a unit increase in Tier 2 Capital ratio (Capital adequacy ratio) result in a decrease of 19.734 in the dividend pay-out ratio.

5.2.3 Customer Deposit and Dividend Pay-out Ratio

The connection between capital structure and the dividend pay-out ratio is significant for commercial banks listed at NSE.The study found that customer deposit have a strong positive relationship of 0.640 at a 5% significant level. Table 4.2.3 shows that a unit increase in Customer deposit will result in 0.002 decreases in dividend pay-out ratio at 5% significant level. So to answer the question "What is the effect of customer deposit on dividend pay-out ratio of public listed commercial banks in Kenya?" yes at 95 degrees of freedom an increase in customer deposit leads to a decrease in the dividend pay-out ratio. The results comply with previous studies by Al-Kuwari, (2009) and other studies who found a negative relationship between leverage and dividend pay-out ratio in companies. This can be explained by the varying nature of the industry since the banking industry is highly levered compared to other industries and commercial banks rely on customer deposits to facilitate lending and to generate revenue. So an increase in customer deposit results in decrease in the dividend pay-out ratio.

5.2.4 Interbank Borrowing and Dividend Pay-out Ratio

The connection between capital structure and the dividend pay-out ratio is significant for commercial banks listed at NSE. According to Table: 4.3 the study found that Inter bank borrowing has a weak positive relationship of 0.327 at a 5% significant level. Tables 4.2.2 shows that a unit increase in Interbank borrowing measure will result in 2.952 increase in dividend pay-out ratio at 5% significant level. So to answer the question "What is the effect of Inter bank Borrowing on dividend pay-out ratio of public listed commercial banks in Kenya?" yes at 95 degrees of freedom an increase in Total net borrowing from other banks to Total asset ratio leads to an increase in the dividend pay-out ratio. So the study concludes that an

increase in interbank borrowing leads to an increase in dividend pay-out ratio of public listed commercial banks in Kenya.

5.3 Conclusion of the Study

The objective of the study was to examine the effect of capital structure and a dividend pay-out ratio of public listed commercial banks in Kenya by bringing into play the 11 public listed commercial banks in Kenya for examination for the period of 7 years. In regards to specific objectives; the finding of the research depicts that in regards to the effect of Minimum absolute core capital on dividend pay-out ratio. There is a strong negative association. So we can wind up that a raise in tier 1 capital will result in an increase in the dividend pay-out ratio. This is an increase in core capital will result in an increase in the dividend pay-out ratio. In regards to the second objective, the effect of Capital adequacy ratio on dividend pays out ratio. There is a strong negative relationship between Capital adequacy ratio (Tier 2 Capital) and dividend pay-out ratio. And that a unit increase in capital adequacy ratio will result in a decrease in the dividend pay-out ratio. This means that more stable commercial banks are likely to pay a higher dividend as compared to less stable commercial banks. Since the process of adjustment to meet BASEL III requirement is not complete in Kenya based on the findings we can conclude that in general shareholders have enjoyed higher dividend and assets growth and banks will have no challenges to increase retain earnings to improve capital ratios. Also banks are encouraged to merge to meet the new capital requirement under BASEL III accord.

Customer deposit plays a very crucial role in the banking sector. based on the above findings and discussion we can conclude that the study does not support the pecking order theory which depict that when a firm is seeking external financing debt should be considered first, we can also conclude that there exist a strong relationship between customer deposit and dividend pay-out ratio and an increase in customer deposit will result to a minimal decrease in dividend pay-out ratio banks will be forced to increase retained earnings to adjust capital adequacy ratio and minimum absolute core capital to maintain a buffer above the minimum requirement.

In regards to the effect of interbank borrowing on the dividend pay-out ratio of public listed commercial banks in Kenya.So we can conclude that an increase in interbank borrowing (leverage) in the commercial banks will result in an increase in the dividend pay-out ratio. This study lines with the trade-off theory. Since based on our findings, financial leverage has a weak positive influence on dividend pay-out ratio this means that banks have followed Basel 11 accord and the core capital to total deposit liability are set at a point where the interest of the firm is catered for to minimize the effect of financial distress.

To conclude, based on literature and the result of the study we can conclude that the capital structure of do influence the dividend pay-out ratio of public listed commercial banks in Kenya. In this study, the findings show that all the predictor variables have a significant association with the dividend pay-out ratio. The study supports the pecking order theory since the banks should establish the best relationship between capital structure components and dividend pay-out ratio that will reduce agency costs. This research disagrees with the third proposition in Modigliani and Miller's Theory in regards to dividend irrelevance. Modigliani and Miller went further to illustrate practical situations to show the dividend irrelevance hypothesis. Where they argued that irrespective of the dividend policy, investors have the capability to make cash flow from the stock depending on their cash requirements. Hence, an investor can take advantage of the arbitrage to sell their shares to fill the gap left by dividend issued. The study supports the pecking order theory where debt should be given priority over equity financing. There exist and optimal dividend payout ratio that satisfies the interest of both the managers and the shareholders.

5.4 Recommendations

The study advocate that Commercial banks have to uphold an optimal capital structure to satisfy the interest of both shareholders and management. Thus, each bank should have its own benchmark on capital structure ratios with a buffer beyond the minimum requirement as specified by the regulatory requirement and the Basel 111 accord based on the safety level. Therefore banks should pay a dividend based on the optimal pay out ratio.

5.4 Suggestion for further Studies

The results and analysis of the study have raised additional questions to be addressed in future studies. The study used Inter bank borrowing measure but there are other ratios that can be considered in the future study, instead of dividend pay-out ratio as dependent variable one can analyze dividend yield as the dependent variable. The study considered a seven-year period for future research we recommend for a longer period to be used. It will be worth finding to note the results thereafter if they correlate or if the findings will vary.

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APPENDICES

Appendix A 1: List of Public Listed Commercial Banks In Kenya

1. Kenya commercial bank
2. Cooperative Bank of Kenya
3. I and M bank
4. Housing Finance Bank
5. National Bank of Kenya
6. Equity Bank
7. Standard Charted Bank
8. NIC Bank
9. Diamond Trust Bank
10. Bank of Kigali
11. CFC Stanbic Bank

Appendix A 2: Secondary Data (Average) For Public Listed Commercial Banks In Kenya

Year	Interbank Borrowing	Customer Deposit (000)	Core Capital to Risk weighted assets Ratio	Total Capital to Risk Weighted Assets	Dividend Pay out Ratio
2011	0.027262458	95422.72727	0.179062427	0.213723244	0.220181818
2012	0.044494599	106717.2891	0.194564772	0.228678423	0.247363636
2013	0.045867979	122767.1818	0.172060891	0.206178083	0.322363636
2014	0.051312434	141979.9091	0.154968123	0.18959329	0.219545455
2015	0.047711635	164764.5455	0.152122681	0.176253491	0.368181818
2016	0.051903047	178265.4418	0.158140799	0.184593543	0.252818182
2017	0.04780686	196581.0909	0.15013619	0.172138683	0.403636364

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Appendix A 3: Secondary Data (Detailed 2012-2017) For Public Listed Commercial Banks In Kenya

	BANKING SECTOR CAPITAL AND RISK WEIGHTED ASSETS-DECEMBER, 2011-Ksh M					
2011	**Institution**	**Interbank Borrowing**	**Customer Deposit**	**Core Capital to Risk weighted assets Ratio**	**Total Capital to Risk Weighted Assets**	**DPS/EPS (Dividend Pay-out Ratio)**
	National Bank of Kenya	0.03%	56,728.00	28%	29%	12.50%
	Barclays Bank of Kenya	1.10%	124,207.00	24%	28%	10.10%
	CFC STANBIC BANK	4.72%	74,335.00	13%	19%	0.00%
	Cooperative bank	0.14%	142,705.00	16%	16%	25.90%
	Kenya Commercial bank	4.40%	210,174.00	20%	21%	50.00%
	Standard Charted Bank	4.99%	122,328.00	12%	14%	27.10%
	Equity Bank	7.54%	121,774.00	15%	22%	28.70%
	Diamond Trust Bank	3.63%	59,772.00	14%	17%	12.50%
	National Housing Corporation	0.03%	18,674.00	21%	34%	44.40%
	NIC Bank	0.24%	62,009.00	15%	16%	9.00%
	I and M BANK	3.18%	56,944.00	18%	19%	22.00%
	AVERAGE	**0.03**	**95,422.73**	**18%**	**21%**	**22.02%**
	BANKING SECTOR CAPITAL AND RISK WEIGHTED ASSETS-DECEMBER, 2012-Ksh M					
2012	**Institution**	*Interbank Borrowing*	*Customer Deposit*	*Core Capital to Risk weighted assets Ratio*	**Total Capital to Risk Weighted Assets**	**DPS/EPS (Dividend Pay-out Ratio)**
	National Bank of Kenya	0.03%	55,191.43	27%	28%	13.10%
	Barclays Bank of Kenya	1.22%	137,915.39	23%	26%	22.20%
	CFC STANBIC	4.68%	75,632.93	20%	26%	7.30%

	BANK					
	Cooperative bank	2.28%	162,267.23	20%	24%	27.00%
	Equity Bank	10.93%	140,285.67	20%	30%	38.30%
	Diamond Trust Bank	2.81%	72,505.12	14%	20%	11.50%
	Kenya Commercial bank	4.26%	223,493.28	21%	23%	46.30%
	Standard Charted Bank	7.04%	140,524.85	16%	18%	27.00%
	NIC Bank	3.37%	77,466.04	16%	16%	16.60%
	National Housing Corporation	0.03%	22,968.00	19%	24%	43.50%
	I and M BANK	3.73%	65,640.24	17%	17%	19.30%
	AVERAGE	**0.04**	**106,717.29**	**0.19**	**23%**	**24.74%**
	BANKING SECTOR CAPITAL AND RISK WEIGHTED ASSETS-DECEMBER, 2013-Ksh M					
2013	**Institution**	**Interbank Borrowing**	**Customer Deposit**	**Core Capital to Risk weighted assets Ratio**	**Total Capital to Risk Weighted Assets**	**DPS/EPS(Dividend Pay-out Ratio)**
	National Bank of Kenya	0.29%	78,508.00	23%	24%	28.70%
	Barclays Bank of Kenya	4.36%	160,125.00	17%	17%	43.50%
	CFC STANBIC BANK	3.78%	111,181.00	18%	21%	45.00%
	Cooperative bank	4.43%	176,614.00	16%	21%	23.00%
	Kenya Commercial bank	1.98%	237,213.00	19%	22%	65.40%
	Equity Bank	9.63%	158,682.00	19%	24%	41.80%
	Diamond Trust Bank	3.46%	84,964.00	18%	21%	8.80%
	Standard	6.82%	157,684.0	17%	21%	49.00%

	Charted Bank		0			
	NIC Bank	3.00%	84,033.00	15%	15%	16.00%
	National Housing Corporation	0.29%	26,589.00	14%	22%	16.60%
	I and M BANK	8.20%	74,846.00	15%	19%	16.80%
	AVERAGE	**0.05**	**122,767.18**	**0.17**	**21%**	**32.24%**
	BANKING SECTOR CAPITAL AND RISK WEIGHTED ASSETS-DECEMBER, 2014-Ksh M					
2014	**Institution**	**Interbank Borrowing**	**Customer Deposit**	**Core Capital to Risk weighted assets Ratio**	**Total Capital to Risk Weighted Assets**	**DPS/EPS (Dividend Pay-out Ratio)**
	National Bank of Kenya	0.03%	104,458.00	13%	14%	12.70%
	Barclays Bank of Kenya	5.88%	176,915.00	18%	19%	35.60%
	CFC STANBIC BANK	3.95%	102,244.00	18%	22%	11.70%
	Cooperative bank	6.40%	219,416.00	15%	22%	30.50%
	Kenya Commercial bank	2.60%	276,750.00	17%	21%	11.30%
	Equity Bank	8.78%	202,560.00	15%	18%	37.50%
	Diamond Trust Bank	5.81%	102,060.00	17%	19%	10.20%
	Standard Charted Bank	6.00%	161,904.00	16%	20%	37.40%
	NIC Bank	9.85%	91,977.00	14%	21%	17.20%
	National Housing Corporation	0.03%	36,310.00	11%	15%	13.70%
	I and M BANK	7.12%	87,185.00	16%	19%	23.70%
	AVERAGE	**0.05**	**141,979.91**	**0.15**	**19%**	**21.95%**

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	BANKING SECTOR CAPITAL AND RISK WEIGHTED ASSETS-DECEMBER, 2015-Ksh M					
2015	**Institution**	**Interbank Borrowing**	**Customer Deposit**	**Capital to Risk weighted assets Ratio**	**Total Capital to Risk Weighted Assets**	**DPS/EPS (Dividend Pay-out Ratio)**
	National Bank of Kenya	0.02%	110,864.00	13%	14%	33.30%
	Barclays Bank of Kenya	0.94%	188,820.00	16%	18%	64.80%
	CFC STANBIC BANK	3.11%	109,132.00	16%	19%	21.20%
	Cooperative bank	5.63%	266,614.00	15%	15%	33.40%
	Equity Bank	10.02%	237,025.00	15%	16%	72.10%
	Diamond Trust Bank	9.62%	126,577.00	15%	18%	10.60%
	Kenya Commercial bank	3.61%	347,564.00	14%	15%	17.00%
	Standard Charted Bank	4.43%	174,462.00	18%	21%	62.30%
	NIC Bank	9.26%	104,998.00	15%	20%	54.60%
	National Housing Corporation	0.02%	41,888.00	15%	18%	11.00%
	I and M BANK	5.82%	104,466.00	17%	19%	24.70%
	AVERAGE	**0.05**	**164,764.55**	**0.15**	**18%**	**36.82%**
	BANKING SECTOR CAPITAL AND RISK WEIGHTED ASSETS-DECEMBER, 2016-Ksh M					
2016	**Institution**	**Interbank Borrowing**	**Customer Deposit**	**Core Capital to Risk weighted assets Ratio**	**Total Capital to Risk Weighted Assets**	**DPS/EPS (Dividend Pay-out Ratio)**
	National Bank of Kenya	0.02%	97,581.00	11%	12%	11.20%
	Barclays Bank of Kenya	9.59%	198,515.00	16%	18%	51.70%
	CFC STANBIC BANK	1.86%	122,888.00	16%	18%	21.80%

	Cooperative bank	5.63%	256,796.00	16%	23%	42.80%
	Equity Bank	9.70%	277,135.00	14%	15%	23.50%
	Diamond Trust Bank	6.73%	170,421.00	16%	19%	10.50%
	Kenya Commercial bank	3.86%	386,391.00	17%	20%	23.70%
	Standard Charted Bank	4.06%	191,082.00	18%	21%	55.70%
	NIC Bank	11.78%	103,402.00	17%	22%	12.90%
	National Housing Corporation	0.02%	38,155.86	16%	18%	12.00%
	I and M BANK	3.85%	118,553.00	17%	18%	12.30%
	AVERAGE	**0.05**	**178265.4418**	**0.158140799**	**18%**	**25.28%**
	BANKING SECTOR CAPITAL AND RISK WEIGHTED ASSETS-DECEMBER, 2017-Ksh M					
2017	**Institution**	**Interbank Borrowing**	**Customer Deposit**	**Core Capital to Risk weighted assets Ratio**	**Total Capital to Risk Weighted Assets**	**DPS/EPS (Dividend Pay-out Ratio)**
	National Bank of Kenya	0.00%	94,544.00	4%	5%	32.70%
	Barclays Bank of Kenya	10.63%	186,245.00	16%	18%	58.70%
	CFC STANBIC BANK	1.60%	153,009.00	16%	18%	31.10%
	Cooperative bank	6.50%	285,566.00	16%	23%	32.50%
	Kenya Commercial bank	2.30%	440,164.00	15%	16%	65.40%
	Standard Charted Bank	2.96%	213,349.00	16%	19%	56.40%
	Equity Bank	9.13%	298,703.00	16%	17%	23.60%
	Diamond Trust	5.06%	190,469.0	17%	19%	23.10%

	Bank		0			
	NIC Bank	8.23%	130,561.00	17%	19%	32.50%
	National Housing Corporation	0.90%	36,981.00	15%	17%	53.40%
	I and M BANK	5.27%	132,801.00	17%	19%	34.60%
	AVERAGE	**0.05**	**196,581.09**	**0.15**	**17%**	**40.36%**