

**EFFECTS OF CREDIT RISK RATING ON THE FIRM VALUE OF LISTED  
COMMERCIAL BANKS IN KENYA**

**BY**

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**A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTERS IN  
FINANCE AND INVESTMENT OF KENYA METHODIST UNIVERSITY**

**MARCH, 2022**

**DECLARATION**

I declare that this thesis is my original work and has not been submitted to any academic institutions for examination purpose.

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**Msf – 3 – 9590 -3/2018**

This thesis has been submitted with our approval as the university supervisors

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Date.....

Dr. Wilson Muema

Kenya Methodist University

## **DEDICATION**

I dedicate this thesis to my family to their immense and continuous support during this period.

## **ACKNOWLEDGMENT**

I wish to acknowledge the effort of my supervisors Prof Felix Mwambia and Dr Wilson Muema for their continuous and relentless effort in guiding me towards completion of this research work. In addition to that, I would also like to acknowledge the academic staff of Kenya Methodist University, family members, relatives and friends as well as my fellow students for their support both directly and indirectly towards attainment of my academic goal.

## **ABSTRACT**

The banking sector is key to boosting economic growth in any specific region. A stable and sustainable banking area produces successful output and controls cash flow, which in every given country promotes economic development. In Kenya, both domestic and international threats and uncertainties endanger efficacy and competitiveness in the banking sector. Despite the various control measures put in place especially the CBK's prudential laws to ensure that the performance of commercial banks in Kenya is ensured, Kenyans have witnessed most commercial banks collapsed with a combined assets valuation of Kshs 187.9 billion. It is in this light that the current study sought to investigate the effect of credit risk rating on firm value of listed Commercial banks in Kenya. Descriptive research design was employed on a population sample of eleven publicly listed retail banks using census. Secondary data was collected from CBK and other public financial reports on a target of 11 retail banks over the 12 – year period from 2009 to 2020. The collected data was analyzed using a multivariate panel regression model while SPSS Version 23.0 was used to generate the relevant regression tests. Presentation of data results was done using charts and frequency tables for ease interpretation. The study established that the capital adequacy has a marginal positive impact on the firm value of Kenya commercial banks earning ability was found to have a statically insignificant positive effect on firm value among Kenya commercial bank. The study finding indicated that liquidity was insignificantly and negatively correlated with firm value of Kenyan commercial banks. On the other hands' asset quality had insignificant positive effect on firm value among Kenya commercial bank. The study recommends that, managers of listed banks should embrace utilization of internally generated equity capital since this financing mode is cheaper and readily accessible source of capital that ultimately promotes credit risk rating of the firms. There is need to maintain optimal level of liquidity to maximize firm value. The quality of assets as well as higher but sustained levels of earning that boost output is to be keenly considered by management of the Kenya commercial banks maximizing value the firm value.

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## **ABBREVIATIONS AND ACRONYMS**

<b>BIS</b>	Bank for International Settlements
<b>CBK</b>	Commercial Bank of Kenya
<b>EBIT</b>	Earnings before Interest and Taxes
<b>FDI</b>	Foreign Direct Investment
<b>GDP</b>	Gross Domestic Products
<b>IPO</b>	Initial Public Offer
<b>ROE</b>	Return on Equity
<b>UAE</b>	United Arab Emirates
<b>UK</b>	United Kingdom
<b>US</b>	United State

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background to the study

Banks are essential catalyst for economic growth since they have an overall role in a countries economic growth. (Nyabaga & Matanda, 2020). Banks are also very critical and by capital facilitation they promote economic development. Financial sectors worldwide typically face multiple crises on a regular basis while organizations in this industry try to carry out their daily work. This is the cause of many nations coming up with enough to handle the resulting problems successfully, in order to ensure that economic stability is secure (Muthee, 2020). Stress tests a big quantifiable methodology determines financial field degree risk. Stress assessments are used in particular to assess that financial institution are expected to face

This is typically achieved through a macro prudential review, which measures and tracks a financial system's vulnerability.

Globally, in majority of nations according to Onyango and Olando (2020) commercial banks forms a very important part in world's financial system. Their main roles such as mobilization of deposits, projects funding and global and domestic practices affects a country's economic growth as a whole. (Udom & Eze 2018). In the Palestine, over years. The money regulating authority has been working excessively hard and tirelessly to reform the country financial sector for usability (Award & Al karaka 2019). As a result, the financial sector in Palestine has effectively stabilized a catalyst that has significantly

encouraged economic growth by cutting the number of in – bank loans (Awad et al.2017).

In France, during the 20<sup>th</sup> century, the banking sector witnessed tremendous development, stability and modernization, which rendered France one of the most prosperous financial sectors worldwide. The creation of a common stock bank, which has had a positive effect on the country's economic growth, has taken crucial revolutionary steps in Belgium. On that basis, it is clear that economic overall growth as well as the development of nations in the world largely relies on the steadiness of its bank market.

In Africa, the average income level is considered incredibly poor in developed countries such as Nigeria, meaning that citizens can spend in short term without putting pressure on their long-term requirements to be invested (Udom & Eze, 2018). Financial intermediaries, particularly commercial banks as financial intermediaries' perform a very important practice in increasing saving and investment up to their desired level. In this content, retail banks are playing a critical role in Nigeria, therefore, in particular in terms of capital goods which are highly profitable for economic productivity, increasing their economic resources. But banking services are needed for developing nations only in order for developing nations only in order for sectoral growth, thereby affecting their members ' tendency to save as well as other financial opportunities can be seen in significant ways.

Yahaya et al. (2016) conducted an analysis in Uganda in the East Africa region that analyzed the financial distress as impacting the financial performance among Ugandan retail with data gathered from these banks in addition to Central Bank of Ugandan's released financial statements. The timeline under review was 2011 to 2015. It was found,

according to the research results collected, that these retail banks in Uganda were in the face of experiencing financial volatility. Furthermore, the results exposed the banks as having been exposed to vulnerabilities and hence exhibiting financial unsoundness. More results showed that out of the financial unsoundness of these banks, their financial performance. Accordingly, the analysis recommends that to ensure maintaining stability, Ugandan banks need to reduce financial stability, Ugandan banks need to reduce financial instability to maintain shareholder confidence.

Kenyan's banks have a long- term financial risks which affect their survival in the market. For minimal of these risks, banks should increase their performance by using powerful management risk strategies. This is because the particular purpose of business risk management, including economic and financial models, has dramatically expanded to a more nuanced role for non – risk identification uncertainty.

Many academics have addressed the issue of risk management in Kenya as described by Njue et al. (2019). The annual risk assessment survey of commercial banks was therefore carried out by the CBK. In these studies, risk- based surveillance is fully applied and the sector shall follow best international risk management practices, in compliance with Basel Key Principles of efficient banking surveillance.

### **Credit risk rating**

Credit risk is an approach used by credit unions in selecting and giving loans. It assists management in assessing the quality of credit, select loans not performing; risk

performance monitoring and also in managing levels of risk. These days, an institution cannot ignore credit risk rating this is because statistically it has a very important relationship with how commercial banks perform. Non-performing loans are very costly; this can be saved if the management put in place a good credit risk measures which can bring about company profits. (Nyamongo, 2019).

\_When financially stable company identifies non-performing loans, it will be able to meet both short and long time obligations at the best timing. Muthee (2020) asserts that financial soundness of a firm is its ability to have increased and sustainable growth trend on its revenue stream as a hedge against the breach of the going concern assumption.

The Based Capital Accord, which is also known as Basel asses credit and business risks. It was formed in 2001 with the aim of expanding Basel. Notably, the new accord explicitly lays out three main pillars, which are business discipline, supervisory review and capital criteria (Muthee, 2020). Inclusion of operating risk in the revised deal was to help in measuring and determining minimum capital requirement. Operating cost of a bank is measured as its minimum capital ratio and amount of bank's credit. Basel Committee realised the papers in reaction to 2007-2008 banking sector financial crisis in the environment. (Uddin et al., 2019).

According to Basel findings 2007-2008 financial economic crises and poor capital levels made banking sector struggle with server credit losses and systematic risk.

Its implementation brought up crucial changes such as Basel 111 avert problems brought about by recession. Basel 111's main goal is to strengthen financials reserves, risk assessment and liquidity implementing leverage ratio and additional liquidity ratios, (Basel committee, 2019). These changes, liquidity fields, bank capital and debts have been strengthened.

According to Wachira (2017) credit risk management practices on loan performance of commercial banks in Kenya using Nyeri County as a case study should put in place strong mechanisms to decrease credit risk which minimise their profits.

Muigai and Maina (2018) established that management practices of credit risks should work hand in hand with organisational management of the commercial banks in Kenya under enterprise risk management.

### **Firm Value**

A company's firm value indicates monetary value of all the resources it owns. According to Gichobi (2019) a company's firm value is valued as a viable economic concept. Business value is thus called the amount of all claims from secured as well as non-secured creditors as from preferred and preferred shareholders of companies.

Firm value attracts stakeholders who are of more importance to employees, the customers, the state, suppliers as the society at large

Maximizing firm value and cost minimizations ranks highly as far as the goals of any business entity is concerned. According to Nthama (2010). Firm value is the total worth

of firm's assets gotten through its activities in a stipulated period of time. Today's business environment witness measures a corporation put in place in maximization value through the diversification of products and markets in order to increase its market value sustainable in its foreseeable future.

According to Donaldson (2013) a firm uses various parameters in measuring its value. The most common sources of information that proves paramount in measuring firm value include the financial statements such as the statement of financial position, the statement of financial performance, the statement of changes in equity and the statement of changes in cashflows. These measures are identified as the Tobin's Q as well as ratios such as solvency ratios, Liquidity ratios, profitability ratios, efficiency ratios, yield on equity, market capitalization. Among all these measures, the most used measures of firm value are Tobin's Q Relatively higher valued firms are believed to have wider markets due to the assumed higher production levels and other economies to scale as opposed to the firm with relatively lower values.

### **Credit Risk Rating and Firm value**

Dominated by the banking industry, the financial service sector across the economies globally is currently operating in a turbulence environment which is characterized by the risks that have a greater impact on their profitability. Indeed, most firms are coming up with business continuity programs, crisis management strategies as well contingency funding plan policies as an integral part of the enterprises risk management platform of the financial service firms in order to live their going concern assumption.



Banking systems which is keen in its credit ensure sustainable development through credit assurance and providing enough capital for investment projects. Credit risk involves surveillance and assessment of financial system strength to ensure they reach long term survival.

There has been a notable change in the financial service sector across economics due to advancement in globalization, financial technology, financial inclusion as well demographic changes and increased stakeholder awareness which has put the credit rating of the players in this sector on the spot. Increased regulatory requirements as well as compliance requirements and heightened competition are some of the issues that have become more prevalent in the financial service sector. For commercial banks to have a stable and responsive financial system the ensure they meet all their challenges and take up any opportunity at their disposal.

The explanation why the country's banking sector faces all of these problems is the inefficiency of banks' activities and the inadequate distribution of corporate capital by the management of banks. Over the years, the efficiency of commercial banks in the country has declined, and their recorded profitability can simply be observed. Such ensures that commercial banks in the country's financial health aspect is of considerable significance, as this will promote competitiveness and longevity and therefore continue to offer their services to public representatives (Oketch et al., 2018). In an effort to achieve such, however, banks in the country need to strengthen their activities significantly in order to

create financially viable banks based on the key requirements, measurement, values and sound arbitrage position.

### **Commercial Banks in Kenya**

Grounded on reports from central bank of Kenya, it is report that a whole 42 commercial banks have their operation in the country for the purpose of running lending and saving activities locally; in which case 30 are owned by Kenyans and 14 are international owners. However, only twelve of the thirty Kenyans have public ownership and NSE listings Therefore. Healthy net income is the secret to maintaining the continuity and survival of commercial banks. Commercial banks in the country occupy the majority portion of the market, a reality that allows them to be given more scrutiny in order to make sure they follow stipulated laws and regulations laid down. Critical financial and other regulatory changes have been implemented in their cent past to guide the operation of the country's commercial banks. Since then, these reforms have allowed major improvements, standardizing the functions of these the country's retail banks. General management as well as licensing of retail banks is the responsibility of the law of the Kenyan Banking Act. The Kenyan banking sector is therefore one of the key pillars for achieving Vision 2030 as a result of higher consumer deposits, supporting FDI, holding the economy continuously in balance against external shocks and playing a major role in ensuring that the country becomes the leading financial hub in Eastern Africa.

It is essential to determine overall credit risk rating in order to make sure the banking industry's gains profits and all its practices are a success. This research is carried out to

locate and eliminate any faults that are likely to be detected (Gichobi , 2019). In any given region, the banking sector is a very important sector, since it is responsible for providing an effective forum for economic transaction. Therefore, this suggests that the sector's ineffectiveness would inevitably have a major impact on borrower, depositors and the economy as a whole. It is also extremely necessary to ensure that the banking sector runs successfully, and can clearly be calculated by assessing its overall soundness to ensure that every concern is corrected in a timely manner to shield it from adverse publicity.

In addition, a banking survey undertaken by KPMG Africa's African arm in 2018 explains that new regulation is the main challenge facing the Kenyan banking industry as commercial banks were forced to hold KES 3.5 billion minimum fixed capital by December 2018. However, if this policy is adopted, the most significant consideration for smaller banks in the country is likely to be a factor leading to a lack of competition in the banking sector in the country

## **1.2 Statement of the Problem**

Globally, the banking industry has over the years faced numerous challenges following the 2007-2008 global credit crunch which was the clarion call for the banking industry as well as the entire financial services sector industry to realign itself to the best way of managing their loan book portfolio to reduce the portfolio at risk. Increase in credit risk has been consistently noted among most banking industries worldwide which significantly reduce their overall productivity. This has forced the banks revive their

implicit responsibility for the nature of financial advice and prudent management of customer funds through the "know your customer" (KYC) Requirements (Muthee, 2020).

In Kenya, banking industry face internal challenges in order to attain their sustainability aspirations.

Through innovation and globalization, there has been an increase in the level of customer awareness hence making the banking industry reporting be more complex. Some of the challenges that have characterised the Kenyan banking industry include liquidity and credit, collapsing of banks and some put under receiverships, recapitalization of retail banks, bank bailout programs, in addition to significant administration and management ineffectiveness are the major problems. For example, due to these problems Chase bank that was sold out, imperial banks were put under receivership (Gichobi, 2019). Unfortunately, due to this closure, these banks experienced losses which made depositors and other stakeholders lost a good amount of money and many other types of assets. Primary concern banks were registering unhealthy financial and general position, which denied the institutions from repay their clients. Unexpectedly, lack of credit risk rating led to erosion of capital and collapse of the said banks. These problems in the banking sector in Kenya bring about financial insolvency to banks in the country. This makes it important for all commercial banks in the country to practice credit risk rating to ensure and promote survival and their competitiveness and survival, in their services to clients and members of the general public (Oketch et al., 2018)

Innumerable research works have been carried out in the field by commercial banks. One example, Wachira (2017) who did a study on the effects of credits risk management

practise on loan performance of commercial banks in Kenya using Nyeri County as a case study while Muigai and Maina (2018) in his study on the effect of credit risk management practices on performance of commercial banks in Kenya. This analysis made it clear no study, which has been done on the effect of financial soundness on firm value of listed commercial banks in Kenya. This study therefore aims at bridging this research gap by researching on the effect of credit risk rating on firm value of listed commercial banks in Kenya.

### **1.3 Purpose of the Study**

To determine the effect of credit risk rating on firm value of listed commercial banks in Kenya

### **1.4 Objectives of the Study**

#### **1.4.1 General Objective**

The main objective of this study was to determine the effect of credit risk rating on firm value of listed commercial banks in Kenya

#### **1.4.2 Specific Objectives of the Study**

The study was guided by the following specific objectives;

- i. To determine the effect of bank liquidity on firm value of listed commercial banks in Kenya
- ii. To determine the effect of capital adequacy on firm value of listed commercial banks in Kenya

- iii. To determine the effect of asset quality on firm value of listed commercial banks in Kenya
- iv. To determine the effect of earnings ability on firm value of listed commercial banks in Kenya

### **1.5 Research Hypotheses**

The study sought to test the following research hypotheses

- i. There is no statistically relation between bank liquidity and the firm value of listed commercial banks in Kenya
- ii. There is no statistically significant relationship between capital adequacy and the firm value of listed commercial banks in Kenya
- iii. There is no statistically significant relationship between asset quality and the firm value of listed commercial banks in Kenya
- iv. There is no statistically significant relationship between earnings ability and the firm value of listed commercial banks in Kenya

### **1.6 Justification of the Study**

Through the CBK, the government Given the duty of Kenyan government to guarantee that banks operating within its jurisdiction are financially viable, the findings of the study will be very beneficial because it will help the government assess the value of the financially sustainable banks, since they are key players in achieving substantial economic growth in the country. The results from the study will be useful to the regulator in coming up the relevant measures to aid banks manage their credit risk.

Commercial banks will also be very supportive with findings of this study survey as they would be able to understand the relevance and general significance of being financially sound. For potential researchers who may be interested in performing more analysis on the subject, the findings of this study will also be very important because they will use the study as their basis for comparison, especially in the context of empirical assessments. Moreover, this thesis is very useful to scholars, as it explains credit risk rating concept which has not been examined in Kenya before.

### **1.7 The Scope of the Study**

The ultimate goal of this analysis was to explore credit risk rating and the way it determines valuation of Kenyan retail banks listed at NSE. The analysis used secondary data assembled among the 12 listed Kenyan banks. The analysis was scheduled for taking place for the period spanning from the year 2020 to draw an acceptable conclusion and ultimately include unquestionable recommendations.

### **1.8 Limitations of the Research Study**

The research was based on a study period for 12 years from 2009 to 2020. As this is the last twelve- year's period, it has guaranteed the availability of data that is important to the present economic situation. A longer duration of the study, however, captured times of differing economic importance, such as booms and recessions. This will probably have given the issue a longer time focus and therefore a wider dimension. This finding does not extend to other investment banks such as SACCOs and MFIs, as the case study for the research was focused solely on listed commercial banks in Kenya, while it may

provide valuable lessons to other financial institutions given the discrepancies in the way commercial banks operate and, in the way, other commercial institution operates, such conclusions should be taken with caution. It could be necessary to repeat this research for other financial institutions or to include it in the study for potential reference in order to enhance this.

### **1.9 Operational Definition of Terms**

**Asset quality:** Is measure of the dependability of monetary establishments in contrast to loss of worth in the assets

**Banks liquidity:** It is the ability of monetary establishment to encounter its monetary requirements

**Capital adequacy:** is a crucial indicator of monetary well-being of a monetary establishment. It describes whether the monetary firm has sufficient capital to encounter unforeseen losses

**Commercial Banks:** implies the form of financial institutions that typically provide financial service, in particular taking deposits, delivering Lending, redemption services and selling other simple Investment items that act as a profit-making enterprise.

**Credit risk rating:** is the ability of the commercial banks to determine banking security, wellbeing, and to mitigate the potential risk of bank failure.



**Earnings ability:** Is the ratio of the bank's net profit to equity, which shows the ability of the bank to effectively advance credit

**Firm Value:** is an economic term that denotes the total value of all the Resources owned by a business entity.

**Tobin's Q:** implies ratio between the retail value of the firm's physical Asset and the replacement value.

### **1.1 Basic Assumption**

The information to be used in the study was obtained from published journals, websites, newspapers, textbooks and internet source. The researcher finds this information necessary and relevant to the area of study since it has undergone through several verifications thus recommended to contain original information.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

Basically, the current chapter was developed for offering a comprehensive and exhaustive analysis of the overall analytical examination of different research carried out by other researcher's credit risk rating of lending institutions and other firms as well about firm valuation largely, the review captured informative theories, and empirical research analysis. This was used for necessarily constructing a conceptual framework which was used to explain the variables of interest. In addition, the chapter explains three main hypotheses that were used to direct this study: Liquidity choice theory, pecking order theory and buffer capital adequacy theory.

#### **2.2 Theoretical Review**

Usually, a theory is defined as a reflective generalization of reasoning that connects one aspect to another. Thus, the theories examined in this study provide an in-depth viewpoint on explanations of research goals for the purpose of this review.

#### **Pecking Order Theory**

Principally, the Pecking Order Theory (POR), initially familiarized in 1961 by Donaldson, centered on data asymmetry, the early supporter of this principle argued. In 1984, when they explored the pecking order theory, Myers and Maloof further clarified this element of knowledge asymmetry. The hypothesis notes that the availability of asymmetric data

allows the total cost of funding to climb. Because of this, businesses prefer to receive finance from three primary channels, which are equity investment, loan financing and the use of internal funds. Based on this, the hypothesis suggests that more information is open to people who extend funds to the business than most observers do. That is why an organization prioritizes, followed by debt and eventually equity, before deciding on most feasible means of financing for the most favored internal sources (Serrasquiro & Caetano, 2017). The explanation that internal funding is seen first is because it is unregulated as opposed to debt and equity, because a company saves it before it is exhausted before deciding on its investment strategies (Gichobi,2019).

Inside a corporation, executives are responsible for the ultimate management of their company's share capital when working on behalf of shareholder interests. In this respect, management are not permitted to reveal the precise value of the stock of their company's growth opportunity, this information about precise value of the company stock is usually omitted. In most cases, with those data being withheld, At a larger premium than at their prevailing stock valuation, executives issue shares. This sort of things makes shareholders realize that their corporate shares are overpriced and therefore overvalues in value. In very many cases, since most businesses prefer to use alternative sources of capital, they end up overvaluing their shares to ensure they can quickly repay their external debt to make equivalent income simultaneously (concurrently).

Most business prefers using internal finance since foreign funding is very costly. This is according to (Myers & Majluf, 2019). As per the hypothesis businesses with low profits choose to use internal funding option while companies which acquire more profits use external finance and this makes them get higher earning in exchange.

In an event where company managers realize an inadequate capital, they prefer persuasive method to safeguard its owners and this will minimize company share dilution. This principle is used in this study since it helps companies evaluate funding choices by using internal funds before adopting other finance strategies, the reality is a company will achieve sustainable profit and thus avoid diluting results. Consequently, provided that debts are supposed to improve the existing finances that a corporation already has, support needs to remain within an entity. This idea thus pushes a company to opt for internal funding, followed by debt financing and, eventually equity financing, a reality that helps a company to maintain greater value and flexibility as a result of the use of internal finance. The research variable of capital adequacy is told in this respect by pecking Order Theory.

### **Liquidity Preference Theory**

Liquidity preference dates to 1936 when John Maynard Keynes gave insights into it as simply money demand which is measured through liquidity in his book called *The General Theory of Employment, interest, and money*. According to the theory most people revert to choose keeping liquid assets especially currency, as opposed to other non-liquid assets, for example, securities and shares. The theory tries to explain why individuals and firms need be liquid to remain financially sound. If the banks don't have cash ready for settling claims when they fall due, they face a reputational risk especially when customers take long to get their loan request approved or no fund at all.

There are three motives premised in this theory behind holding money, speculative, precautionary and transaction motives.

However, the theory has received criticism from various fronts, its relevance in the financial service sector still remains dominant. This is the reason behind the fiscal and monitoring policies in an economy that ensures that financial services provide maintain a given level of liquid. The central bank of Kenya regulates liquidity of the commercial banks as well as the CMA requirements on compliance level of liquidity can be ignored. The Kenyan Deposit Insurance Corporation was formed to help financial services firms that face going concern challenges in the quest to manage their liquidity as a way of protecting the customer deposits such as imperial and Chase banks.

### **Modiglian and Miller Capital Structure Relevance Theory**

The theory was developed by Modigliani and Miller during the 1950s as an approach to the cost capital and capital structure. They proposed that the value of a firm doesn't depend on its capital structure. This implies that a lower debt component of a firm has no bearing on its market value. They further argued that operating profits of a company are determined by the firm's value. The theory was later modified to include the tax element as well as financial distress cost in series of propositions which has polarised the researchers into two opposing sides as others hold that firm value is relevant or irrelevant of its capital structure.

One of the variables that the study sought to establish is the effect of capital adequacy in determining the value of commercial banks in Kenya that are listed at the NSE. This makes capital structure theories key concern in this study. The Modigliani and Miller approach shows that the value of a leveraged firm (a firm that has a mix of debts and equity) are similar as the value of an unleveraged fir (a firm that is wholly financed by

equity) if the operating profits and future earnings are the same. By relaxing some of the assumptions made in the original MM theory such as frictionless market with perfect information at no cost and without tax, capital structure has proved to have a significant implication on the firm value.

Graham and Harvey (2018), the initiative that led to MM reforms in 1977 led to the introduction of personal taxes, thus keeping the presumption that the capital system remained an important matter to be taken into accounts. Companies and other corporate organizations have been on the brink of realizing 100 percent debt finance by this method. It is evidently important to assets that various countries have different and different tax laws in place, but it is therefore important to consider and remember that the whole tax shield scheme will totally lose its importance if the country, wishes to change its tax laws and decides to reject the advantages associated with debts interests. In Kenya, for instance, most of the companies formed are subject to the thin capitalization. The case in point that mainly contributes to the company's thin capitalization is the case where the companies are primarily owned by the international states or a case in point where the gross net loans are equivalent to three times higher than the debits.

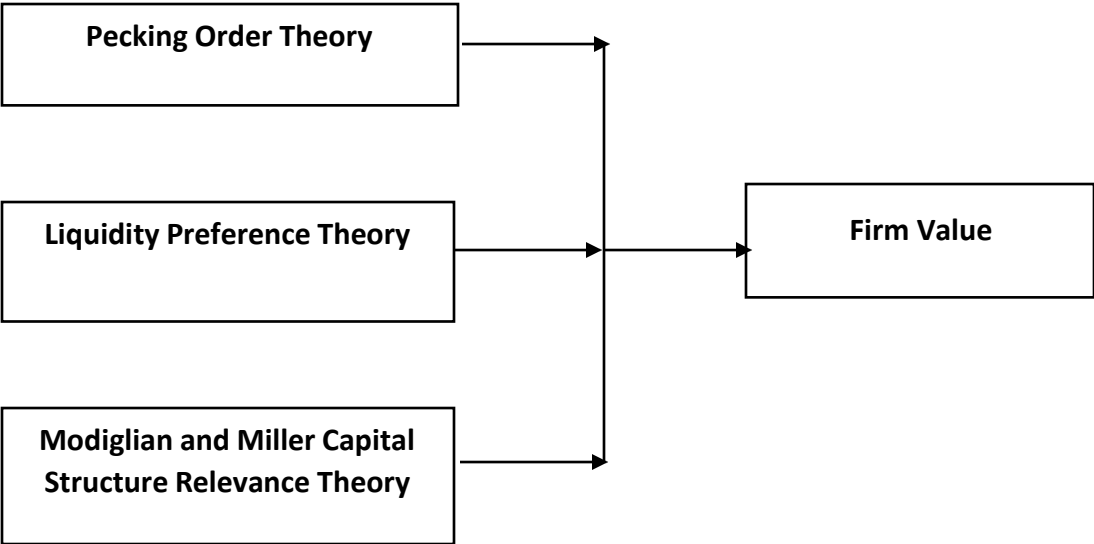
The majority of foreign companies and groups are best positioned in a position to arrange their tax structure in such a manner that there is a definite balance between debt and equity, which is solely meant to evade tax by needless gaps in the laws of international transfer pricing. Such illegality is ultimately regulated by ensuring that, in accordance with financial systems, there are still overall caps on tax advantages. It really has proven that 100% of debt finance is a complete fallacy and that there is no (Miller, 1977).

The principle of MM demonstrates in assumption that showing what counts we also explain what doesn't matter. Essentially, if the capital structure is considered relevant, taxes and default risks are often known as default risk and should be seen as a very good place to look at the reason why it matters. In this regard, commercial banks' performance is typically improved

**2.3 Theoretical Framework**

**Figure 2.1:**

*Theoretical Framework*



Source: Mohammed (2021)

**2.4 Determinants of Credit risk rating**

**Banks Liquidity**

Financial liquidity, as applicable to the banking industry, involves the likelihood of a bank turning its reserves into currency, in this scenario, in the case that there is a need to do so,

liquid assets refer to all assets that can be sold and turned to cash easily. The dollar, central bank reserves, and government debt are the most influential fixed assets in the banking sector. Study result from Boateng (2019) indicate that liquidity has been found to have a significant effect on Ghanaian banks performance. This same study proposes policies that foster revenue diversification, reduce credit risk and allow banks to minimize their liquidity reverses, based on the result therefore in order to remain competitive commercial banks must have ample liquid assets in their custody to satisfy their short-term commitments, in particular deposit from depositors. Bank liquidity was calculated for the purpose of this analysis by rapid reserves to the total deposit ratio.

More so, Onyekwelu et al. (2018) asserts that liquidity control provides high public belief in the banking system of accounting and great public confidence stops the ‘rush ‘of the bank system and do banks liquidity state. Because economic laws and variables from this study and other related studies have shown that there is a link between successful liquidity management and banking efficiency, management may be dependent on the weak liquidity status of Nigerian Banks. Liquidity was thus considered to be negligible and to be adversely correlated to asset returns. This means that, while negligible, holding liquid assets has a cost impact on bank results. Basically, liquidity is used by banks to provide enough funds to meet their commitments, and this may be the reason why it compares adversely with bank success in terms of asset return.

Meanwhile Mananda (2017), posits that commercial bank do not gamble on liquidity control to ensure the performance of financial institution. Commercial banks need financial commitments inorder to retain optimum liquidity ratios. Khan and Ali (2016)



disclosed a strong and relevant association between liquidity and commercial banks profitability in their report.

However, the report warned that the limited sample size meant that the finding for the entire banking sector in Pakistan could not be generalized.

### **Capital Adequacy**

In finance, capital adequacy corresponds to the required core capital reserves maintained by the banks that are supposed to be retained by all retail banks and other financial institutions. Thus, capital adequacy is taken into account in terms of the bank's principal capital for its shares, i.e. borrowing and new contributions. Capital adequacy is thus utilized as the ultimate measure of stability and financial results in Nepal. Bhattaraai (2019) realized that the capital adequacy ratio (CAR) and financial performance are majorly related. The standard provision of the bank for international settlements also demands that reserves for risk- weighted assets be measured in order for all commercial banks to have sufficient capital. For the purposes of this study, capital adequacy was estimated using capital for weighted asset at risk.

Furthermore, Nyabaga and Matanda (2020) showed a substantial positive effect on the ROE and asset returns of capital adequacy (ROA). The same study found that the effect on capital adequacy and the bank sizes had a substantial positive effect. Kaol (2017) suggest that the capital adequacy levels that an entity has, the lower the institution's financial output. The findings also revealed that some of the banks registered an improvement in the capital adequacy ratio, while others, the merger events, reported a decline. Kaol (2017) proposed the banks work to improve their assets yields, ROE and

CAR (capital adequacy ratios). Kaol (2017) recommend increasing the capital adequacy ratio by issuing new shares to current owners by rights issues and replacing riskier or riskier loans with safer ones, such as government securities. A rise in the capital adequacy ratio confirms that, when and when due, a bank will satisfy its liabilities and other commitments and be able to handle more losses in the case of consumer default loans. Banks should propose reducing the share of the earnings in order to improve the capital adequacy ratio by paying out dividends, selling new shares to current owners, such as by a rights issue and eventually replacing riskier loans with the safer ones or government securities,

### **Asset Quality**

Customarily, asset quality element comprises the institution or organization earnings and typically focus on the quality of the corporate or administrative loans. Therefore, the definition of asset quality is defined by ranking the overall risk factor that we are applicable to the assets that are more likely to be faced by the enterprise or the company and then making a comparison with the total capital earnings of the company. Therefore, whether confronted or faced with any real risks, the use and the use of the Asset Quality essentially indicate the company's stability.

In addition, the evaluators are also involved in evaluating how the fair market value of the assets is influenced by the business and organisations as mirrored and correlated with the institution's net book value of the company's investments. The influence of asset quality on banks' operational efficiency in Nigeria was analysed in the study Lawal et al. (2018) revealed the asset quality has a positive significant impact on banks' operational

efficiency ratio, thus conforming the current findings that the quality of bank assets is poor, especially when unimpaired or increasing NPLs levels. With an eagle eye on the cost / expense reduction, it can also spur higher income for the bank, which would boost banking performance and ultimately raise bank fortunes. Finally, the overall quality of assets is measured and expressed by the correctness and efficacy of the investment –related strategies of organizations. Asset quality will be calculated using the proportion of NPLs to overall loans for the purpose of this report.

### **Earning ability**

The income applies to the net benefits of the commercial bank from its total activities. In comparison, profit is deemed to be the amount of income tax paid. Other basic concepts, such as profit before interest and taxes, are used for the study of specific facets of commercial bank activities (EBIT). Earnings will be calculated using the net benefit to equity ratio for the purpose of this report. Although trying to ascertain the impact of earnings potential on the financial performance of Kenya's savings and credit firms. Muthee (2020) reported that, has explained by the regression findings, earnings capacity affected financial performance, which showed that the effect was favorable. In addition, the finding of the association regression showed that earning capacity was correlated with financial success.

### **Firm value**

An organization's credit risk rating is the underlying concern of partners in deciding on venture choices. In order to construct the business reputation, better money – related implementation is focused on, with the objective that the greater the budget presentation,

the greater the company value. For financial professionals and banks, the company importance is important and they are increasingly specific in participating or granting the entity credit. For investors, the assessment of financial results is a fundamental feature of investing since it can describe the company's actual situation. Any business will still hold its strong firm valuation even higher. Sudiyatno, et al. (2020) suggest that the greater the financial outputs proxies by financial ratios, the greater the valuation of the stock. The firm value was calculated for the purpose of this analysis using the Tobin Q ratio.

## **2.5 Empirical Literature**

Primarily, this area discusses previous literature by other researchers on the impact of credit risk rating on firm valuation.

### **International Evidence**

In order to boost the profit efficiency and budgetary execution of the financial sector in Thailand, Yahaya et al. (2016) performed an exam on bank reconstruction. Improving the number of non-performing credits was the goal of this exploration (NPLs). The result of this investigation revealed a decline in NPLs from 42.9 percent in 1998 to 10.5 percent in 2001. These results showed that the nature of bank capital was strengthened by restoring NPLs.

This result is consistent with that of Cosh and Hughes (2018) in a study conducted in the UK for the period 2004-2008 by 217 firms. The study observed that internal equity contributed to the sustainability of the company. In Taiwan, Umoren et al. (2016) released a 2005 – 2007 (precrisis) and 2008 – 2010 study on the impact that the financial variables

had on the bank's earnings (post crisis). The findings showed that the ratios of ROA and CAMEL were related. The study also found that the probability of external threats in assets quality during post – crisis and precrisis time was high.

In Germany, Elsas et al. (2018) published an analysis of companies that made substantial investments in 977 companies between 1989 and 1999. The purpose of the analysis was to examine how the mode of finance, such as internal and external funding, influences the company's financial results in long – term irregular returns on stocks. The researcher accomplished this by defining the principal source of finance for each investment company and by distinguishing the valuations from the investment – based decisions. The analysis showed that the key external sources of finance were long and short – term borrowing and financing in addition to shareholders' financing while internal source of financing was used for development cash flow.

Ronen and Yaari (2016) separated earnings into two categories to boost incomes and opportunistic benefits management and described each as an improvement in income management to build excellent partnership with owners with valuable knowledge, without analyzing such many subtle nuances. It is necessary to ensure the kindness of the owners when characterizing the other form of pioneering profit control is likely to be a direct consequence of the irreconcilable circumstances between consumers and management and in the light of the possibility that those with private data find it possible to exploit it to the detriment of others to the advantage of their holder.

Nazir and Afza (2018) found that where there is a misalignment of persuasive forces among managers and investors, binds in budgetary reports occur. This might push

managers to rehearse the versatility of book keeping assortments to deftly change sales. Benefit accounting combinations are used the sharp clear of management in this study along these points.

A research undertaken by Forsaith and McMahon (2018) in Australia to evaluate how equity was calculated using retained earnings against the gross asset ratio, while published share capital was measured using external equity – reflecting overall capital. By calculating company turnover, the degree of firm growth was determined. The size of the company was regulated and it was reported that there was a relationship between internal equity factors, whilst external equity offered a mixed outcome at 10% significance interval level, suggesting both negative and positive outcomes. The outcome revealed that internal equity improved the growth rate of the company, while external equity did not help the company's growth at all. Fernandes and Ferreira (2017) announced that accumulation-based revenue management have an impact in the exact access of investors to an association's authentic budgetary display. This influence the drawn-out introduction of the reaction of the association. Income management collections put together in this case have a negative interaction with the association's money-related execution.

When calculating real money execution, the administration is robbed of the impact of spearheading management activities benefits which show the association's certified estimate.

### **Local Evidence**

Locally, in Kenya, an empirical analysis was undertaken by Mugenyah (2015) that explored the securitization and liquidation of short-term investments by financial

institutions in Kenya. From the study, the researcher learns that when the rate of interest is higher than international borrowing banks use their own reserves. The report's result revealed that the financial health of the retail banks had disproportionate and had in-house resources used instead of borrowing. Based on this evidence the researcher made a conclusion that for the banks to be able to monitor their balance in whole, they need to keenly look at their profitability and liquidity.

In addition, a study was conducted in Kenya by Cheluget (2018) to determine whether liquidity among insurance firms is a major determinant of financial distress. Using a stratified random sampling methodology, the study collected data from the target population of 45 insurance companies registered under the IRA through open-ended questionnaires. The findings from the study revealed that liquidity of the insurer and its financial distress are substantially linked. However, in comparison to the banking sector, research was carried out in the insurance industry and hence did not explicitly explain the degree to which the liquidity of businesses is an essential determinant of the financial distress that effects the financial performance of commercial banks glob

In his study, Kibuchi (2019) explored liquidity risk of Kenyans retail banks and the manner that it affects their financial for span between 2010- 2014, with this analysis using 4 years' financial reports and results. The research findings showed that the viability of the bank was determined by the chance of liquidity. If consumers are not presented with the details pertaining to their funds on time, they lose faith and this may affect the credibility of the banks, which may ultimately affect the profitability of the business.

Gudmundsson et al. (2018) also carried out a survey in Kenya, evaluating the position of capital adequacy for thirty – six commercial banks in Kenya for the period of 2001-2011 in their competition and stability assessments. The study used the T- statistics of Lerner index, Panzer and Rosse to measure the current competition between the selected banks. A linear regression model was used to analyse the collected data on the effects of capital adequacy on banks operating in Kenya as a determinant of competition and stability. It was also shown that, as core capital increased, it resulted in less rivalry to a certain point from which competitiveness developed. However, the finding of ROE has shown that correlation between capital adequacy and competitiveness is favourable, indicating that capital adequacy positively boosts overall banks' performance thus financial stability.

In their study, Yahaya et al (2016) show that capital adequacy is a key indicator that allows banks to determine their risk reduction strategies that corporations should follow to boost their performance in a given economy. The study showed that, while they are closely related, capital adequacy dictates the output of business in every region. One on either side, in their research study, Olalekan and Adeyinka (2018) have argued that capital sufficiency is a major part of financial institutions and can be measured in the primary capital ratio. Of the financial institution to its assets by demonstrating the company's credit risk rating.

Gichobi (2019) investigated the effect of profit efficiency on cash- related execution among Kenyan business banks. The analysis includes all 42 approved business banks in Kenya that were involved in the ten – year period between 2004 and 2016 from which optional information was obtained. Expressionistic observable techniques were used in the analysis of knowledge. The person relationship showed that lone liquidity and capital



amplitude were seen as factually net worthy in Kenya's business banks on budgetary execution. The analysis assumed that the efficiency of the profit was entirely important in estimating the budgetary implementation of monetary foundations.

In Kenya, Kithinji (2018) conducted an analysis to determine how resource efficiency affect the viability of business banks. The evidence reveals that advantage efficiency was basically defined in a positive way with competitiveness of commercial banks in Kenya, as the percentage of non- performing net capital was considered poor. Non – performing credit results in a backhanded cost of the bank. In this way, the bank would not collect premiums on the advances and run since a long time ago; it affects the bank' advantage.

### **Liquidity and firm Value**

Onyango and Oland (2020) established that liquidity ratio has a negative association with NPs at a 95 percent confidence level which was law and significant, although the Ndungu (2019) study found that liquidity has favourable and significant effect on financial distress. This suggest that the bank's liquidity steps would improve. The result differs from Gudmundsson et al. (2017), who established that liquidity displayed a negative and important impact on financial distress. These discrepancies may have been noticed that the on slaughter of financial distress seems to have been the recent banks defaults, which created a liquidity incident that led some banks to suffer more financial distress.

Boateng (2019) tests the performance of Ghanaian banks using a typical multiple regression to examine the impact on the performance of banks in Ghana of the different components of CAMELS model. The result of the study revealed that Ghanaian banks' output was greatly influenced by liquidity. Effective and efficient liquidity management

boosts public confidence in the banking system and thus the financial service sector of a country.

The findings of the Charmler et al. (2018) analysis indicate that liquidity is having positively significant impact on the return on assets using all bank liquidity indicators, whereas the ratios of liquid assets to total assets are weakly positive. An insignificant negative association to overall interest – bearing liabilities was found between an equity (ROE) and net assets. The study reported a positive correlation between net interest margin, bank size, capital adequacy ratio, foreign ownership and bank profitability about the control variables. The study also that banks need a pre- determined optimum amount of liquid assets to increase profitability. Thus, the amount of liquidity below which profitability would be decreased should be decided by the banks.

The research by Onyekwelu et al. (2018) evaluated in the impact of liquidity on Nigeria's deposit money banks' financial results. Multiple regression analysis was used to analyse the results. The result demonstrate that liquidity positively and significantly influence banks' profitability ratios and the return on capital employees. Because economic laws and variable from this study and other related studies have shown that there is a link between successful liquidity management and banking efficiency, management may be dependent on the weak liquidity status of Nigerian banks. However, the study established adverse effects on assets returns. Basically, liquidity is used by banks to provide enough funds to meet their commitments, and this may be the reason why it compares adversely with bank success in terms of asset return.

Kamande et al. (2016) research has examined liquidity impacts on financial outcomes of commercial banks in Kenya. The study found a weak positive relationship between ROA commercial bank and liquidity. The positive and significant link between liquidity and profitability in their reports was discovered by Khan & Ali (2016). The study, however, warned that the small sample size suggested that results could not be generalized for the whole banking industry in Pakistan.

Khan and Ali (2016). did a study on the impact of liquidity on the return of business banks in Jordan? The results of the study indicate that liquidity has dramatically affected the profitability of the listed commercial banks in Jordan. However, in comparison to the bank's liquidity tests used in literature, the analysis used rapid ratios as a means of bank liquidity.

Research by Muhamad and Hashim (2015), which evaluated the performance of commercial banks in Malaysia using the CAMEL system, showed that liquidity had a major performance effect. There was a negative balance between loans guarantees for total loans and a positive relationship for total loans and total assets.

In Kenya, the liquidity impact of the listed financial institutions Nairobi were analysed by Nyabate (2015). There is also need to devise policies that will strengthen the efficient management of liquidity in Nigerian's banking sector and the public use of currency.

Musyoka (2017) study showed that Kenya's financial results indicate a positive, negligible relationship between liquidity and business banks. Based on the findings of this study, the inference is that Kenya's' commercial banks have no significant financial performance and liquid ties.

In Mananda's review (2017), liquidity was insignificantly and adversely related to the return on investments. The findings of the analysis suggest that liquidity is one of the factors impacting the financial accomplishments of listed companies in Nairobi. ROA's (Return on Assets) correlation with liquidity in the study is negative, which means that the financial performance of NSE – listing financial companies will decrease as a result of a decline in liquidity.

Commercial banks do not gamble on liquidity control to ensure the performance of financial commitments; they are required to retain optimum liquidity ratios.

Khan and Ali (2016) disclosed a strong and relevant association between liquidity and commercial bank profitability in their report. However, the report warned that the limited sample size meant that the findings for the entire banking sector in Pakistan could not be generalized. The significant effect of liquidity cannot be ignored but rather adequate and relevant policies should be put in place to ensure that liquidity is maintained at a level aimed at getting the optimal firm value.

### **Capital Adequacy and firm Value**

Nyabaga and Matanda (2020) analysed the impact of company characteristic on financial result by essentially using descriptive coupled with inferential (correlation and regression) analysis to concentrate on listed banks on the Nairobi stock exchange. The outcomes showed a substantial positive effect on the ROE and asset returns of capital adequacy (ROA). The same study found that the effects on capital adequacy and bank sizes had substantial positive effect.

Bhattara's (2019) study investigate the effect of credit risk on financial performance of commercial banks in Nepal. The regression results suggest that the capital adequacy ratio (CAR) is closely correlated with the financial performance of commercial banks in Nepal measured as ROA. The performance of Ghanian banks using the CAMELS rating model was evaluated by Boateng (2019). The adequacy of capital was proven to affect the output of Ghanian banks significantly.

Udom and Eze (2018). Using the ordinary least squares (OLS) regression process, the influence of capital adequacy criteria on the performance of commercial banks in Nigeria was analysed. The findings suggest that the appropriateness of capital has positive effect on the financial performance of the banking institutions. This ensures that the adequacy of capital strongly and efficiently encourages, reinforces and increases the financial productivity of commercial banks and leads to a higher standard of profitability by capital adequacy and adequate management. The Mananda (2017) study used the analysis of the data table in relation to the effect of internal variables on the financial results of banks listed on Kenya panel data regression model of the Nairobi securities Exchange. The empirical findings reinforce the negligibility of capital sufficiency and the detrimental impact of shareholders returns. Capital appropriateness is a factor that decides bank efficiency, according to Mananda (2017). This means that a capital raise decreases bank's profitability, albeit at an insignificant amount. Therefore, in situations of unfortunate incidents, capital is part of a fall-back position, but it is not based on banks results in terms of profitability.

Musyoka (2017) studied the economic results of commercial banking in Kenya by adopting a descriptive analysis style. The study findings demonstrated that the capital

adequacy and financial success of Kenya commercial banks was adversely and substantially linked. Based on this observation, this study concludes that capital adequacy in Kenya's financial output has an opposite and important association with commercial banks. However, because there are types of financial institutions such as microfinance, insurance undertakings, savings and loan cooperative societies, mutual funds and others, the context of the study was commercial banks in Kenya.

The study by Kaol (2017) was based on a descriptive research design to analyse the information by means of descriptive statistical methods, correlation and analysis of regression. The financial stability results show a clear negative correlation the financial stability effect. This suggests that the higher the capital adequacy level that an entity has, the lower the institution's financial output. The finding also revealed that some of the banks registered an improvement in the capital adequacy ratio, while others, after the merger events, reported decline. Regression outcomes found that after the merger or takeover, capital adequacy ratio explained just 3.2 percent of the production variation. A rise in the capital adequacy ratio simply indicates that a firm can meet her obligation as and when they fall due thus reduced default risk loans.

A Research conducted in Kenya on the effect of bank relevant factors on the financial performance of retail banks was carried out. (Kamande, et al., 2016). A unit increase in capital adequacy from regression model obtained when keeping the other variables steady would contribute to an increase in bank's ROA. The appropriates of capital is based on the capital adequacy ratio, according to the report (CAR). The capital adequacy reflects the bank inner ability to absorb setbacks through the recession. The capital adequacy ratio is directly proportional to the bank's stability in circumstance of crisis. It also has

significant influence on bank's profitability by evaluating their growth into risky yet lucrative businesses or regions.

### **Asset Quality and firm value**

The research by Nyabaga and Matanda (2020) analysed banks' asset quality functions. The authors found that the consistency of the asset had a major adverse ROE effect but a negative impact on ROA. The findings showed that the ROE was strongly positive and the ROA was slightly positive. There were mixed findings on the effect of assets quality and productivity leveraging.

The study by Omete et al. (2019) sought to examine the effect of financial management efficiency on financial performance of commercial banks in Kenya. This study which adopted the descriptive research design found that there is a positive and significant relationship between financial management efficiency and financial performance of commercial banks in Kenya.

Boateng (2019) measured Ghanaian banks' success using the CAMELS model (capital adequacy, standard of reserves, efficacy of management and, earing. In the analysis, a typical multiple regression was used to evaluate the impact on banks' success in Ghana of the different components. It was observed that the standard of assets greatly influenced the output of Ghanaian banks.

Sile et al (2019) analysed and assessed the efficiency of assets and financial performance of banks in Kenya using secondary data derived from the published financial performance of banks in Kenya using secondary data derived from the published financial statements

of 11 Nairobi securities exchange banks for a period of six years from 2012 to 2017. The research followed the use of ratios as a metric of bank financial output and asset quality. The results showed that an increasing assets size is also connected to the banks' age. The key commodity of lenders from which the produce revenue is loans. The efficiency of the loan portfolio is determined by the banks' profitability. Loses derived from unpaid loans are the greatest risk facing a bank thus, the safest proxies for asset quality are non-performing loan levels. Holding the volume of non-performing loans at a low level is the main priority of all commercial banks, the findings of Mananda (2017) study indicate, however, that the assets standard was Marginal and negative with ROA. Asset quality is used mainly for the calculation of the overall risk of bank credit and this may be an explanation of for negligibility of bank production.

The finding of Musyoka's (2017) research suggests hoe negative and negligible are the relationship between asset quality in commercial bank and ROA, while the liquidity-ROA is positive and insignificant. This very same research has shown that the norm for reserves and financial results of commercial banks in Kenya are a poor and marginal relation. The finding of this study indicates that Kenya does not have substantive relationship between commercial banks in terms of financial success and active quality.

Musyoka (2017) findings on the effects of asset management on the financial performance of combined commercial banks in Kenya indicate that performance at 28.7 percent is clarified by return assets. The finding of the correlation found that there was a strong substantial association between shareholder return and the success of entities that had either consolidated or purchased. A poor return on investment means that a corporation is not making sufficient profit or is over investing in non-profitable assets through



downsizing services and relocating to cheaper premises, management will focus on reducing the operating expense of the bank. Fix assets that are not being used will also be sold off.

Lucky and Andrew (2015) explored the impact between reserve efficiency and commercial bank. Profitability using multiple regressions in Nigeria. The finding suggests a strong ROI relationship for unsuccessful loans to total loans and the ratio of non-performance loans to Total Customer Deposit, while a negative ROI relationship occurs between the percentage of loan loss liability and total loan loss provision. The same research found that the correlation between reserve quality and retail banks' financial output is significant. It advises that before and after credit, the bank lending climate should be well investigated and that regulatory authorities should maintain a stable bank lending environment in order to deter the occurrence of non-performing loans to increase the profitability of retail bank in Nigeria.

### **Earning Ability and firm value**

That results of review of the measured ratios from the financial statements of the selected banks in the report by Boateng (2019) showed that earnings stood out as the extremely important factor affecting the success of banks in Ghana. A percentage improvement in earning would result in a whopping ROE- measured 82.5 percent rise in bank results.

The research by Ndungu (2019) showed that financial insecurity was influenced favourably in substantially by earnings (measured by ROA). This means that while the banks' revenue and liquidity calculations. Analysis results on the substantial and optimistic impact of earnings on financial distress. This high quality of earnings can serve

as a credible predictor of an organization's potential status and organizational efficiency. It should also mirror the actual operational efficiency of the organization. The results, however, vary from those of the Masdupi et al (2018) research that revealed earnings as having a negative and substantial effect on financial distress.

The results of analysis by Mananda (2017) show that earning potential is positively linked, but negligible. In-terms of resource provision and control, sufficient consideration should be paid to capital adequacy, income capability that is favourably associated with the success retail banks. It was discovered that earnings quotation was negligible and positively link to bank results. Banks improve their efficiency by managing overheads. In total, banks have three available streams of funding, in the form of retained profits, debt instruments and equity. The standard of financing from the sources listed should be carefully analysed and the return on assets should have a direct impact.

The study by Kamande et al (2016), which used a person- style correction, found a weak positive relationship between the commercial banks' ROA and earnings potential. According to Mwangi (2014) on how to decide how the risk management impact on Kenya's business banks' financial results. Descriptive architecture for science was used in the study. The findings of the study indicate that the financial success of the commercial bank in Kenya is strongly correlated favorably with risk management. The research also reported that the vulnerability of interest rates and the financial performance of commercial banks was determined correlation. The study indicates that commercial banks can treat the risks effectively, as risk control has been shown to have a beneficial influence on the financial performance of commercial banks.

## **2.4 Conceptual Framework**

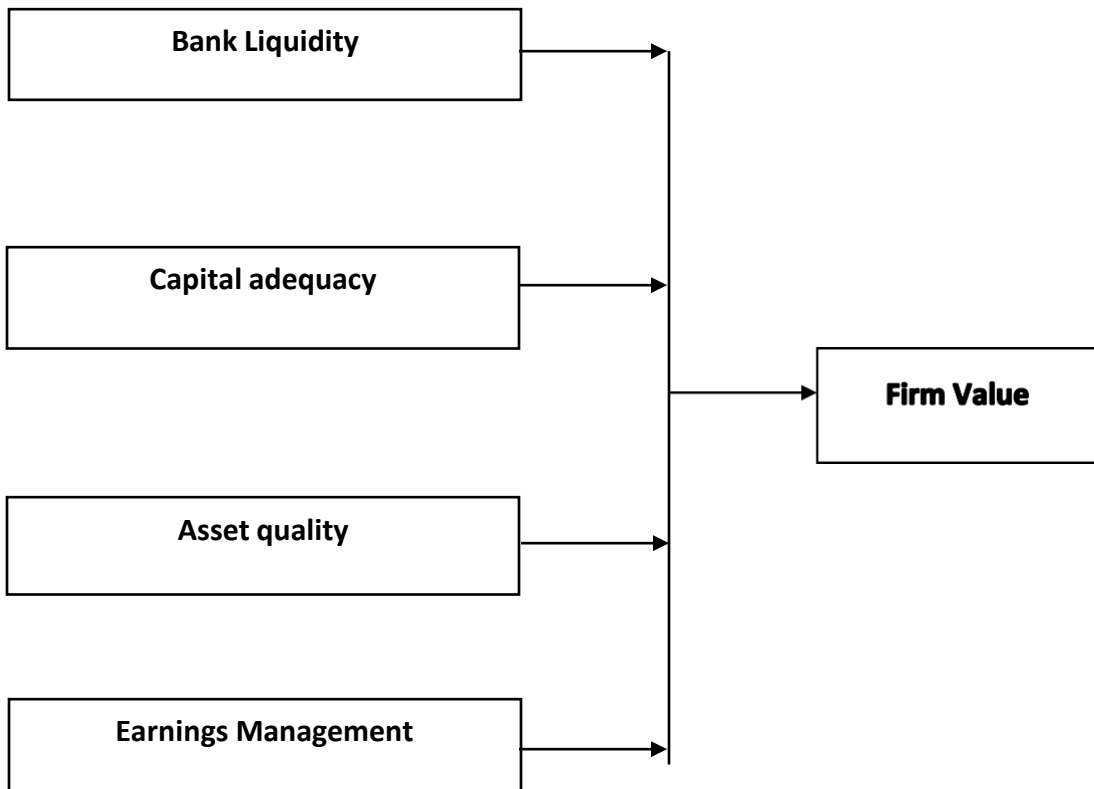
Conceptual framework demonstrates the proposed relationship between the variables in the study. Mugenda and Mugenda (2003) cited in Jegadeesh et al (2016). The dependent variables are provided by the valuation of the company for the purpose of this analysis, while independent variables are liquidity, earnings, asset quality and capital adequacy.

**Figure 2.2:**

*Conceptual framework*

**Independent variable**

**Dependent variable**



**Source:** Researcher (2021)

**Bank liquidity-** the ability of the firm in meeting its short term obligation and when they fall due. The need to put in place mechanisms of ensuring effective and efficient management of liquidity has been a subject of concern by most scholars such as Onyango and Orlando (2020) as well as Ndungu (2019) who all agree that liquidity has a negative relationship with NPLs in the financial services sector especially the banking industry.

Liquidity displayed a negative and important impact on financial distress which gain poses going concern assumptions. Effective and efficient liquidity management boosts public confidence in the banking system and thus the whole financial service sector of a country.

As noted by Odunga et al (2017) liquidity has appositively significant impact on the return on asset using all bank liquidity indicator., whereas the ration of liquid asset to total asset are weakly positive. Some studies opine that there exists a positive correlation between net interest margin, bank size, capital adequacy ratio, foreign ownership and bank profitability of the banking industry.

**Capital adequacy-** the maximum amount of the capital a bank is supposed to as guided by the consideration in determining firm value as this will greatly dictate the scale of operation and thus the sales revenue eventually. Most studies done agree that capital adequacy alongside asset returns have positive influence on firm performance measured using return on asset.

While a study by Bhattarai (2019) established that capital adequacy is a major consideration in the credit risk rating that has a significant impact on firm performance in the banking industry which agrees with Boateng (2019) who used the whole aspect of the CAMELS model that indeed adequacy of capital effects the output of Ghanaian banks significantly, in order for the banks to reap from the economies of scale operation, there is need to have adequate and relevant capital by class composition with a study by Musyoka (2017) on the economic result of commercial banking in Kenya. The study

findings demonstrated that the capital adequacy and financial success of Kenyan commercial banks was adversely and substantially linked.

Asset quality- An attribute of assets that a firm holds within its portfolio of assets that covers wide range of aspects such as efficacy and effectiveness. Asset quality element comprise the aspect of assets that an organization is able to get optimal returns from the use of such asset in generation of revenue.

Indeed, the definition of asset quality is defined by ranking the overall risk factors that are applicable to the asset that are more likely to be faced by the enterprise or the company and then making a comparison with the total capital earnings of the company. The influence of assets quality is positively linked with banks' operational efficacy. Care should be taken to ensure that too much cash is not tied in the assets which are not optimally used especially those that are occasionally used in which case the organization decides to use leasing as an alternative.

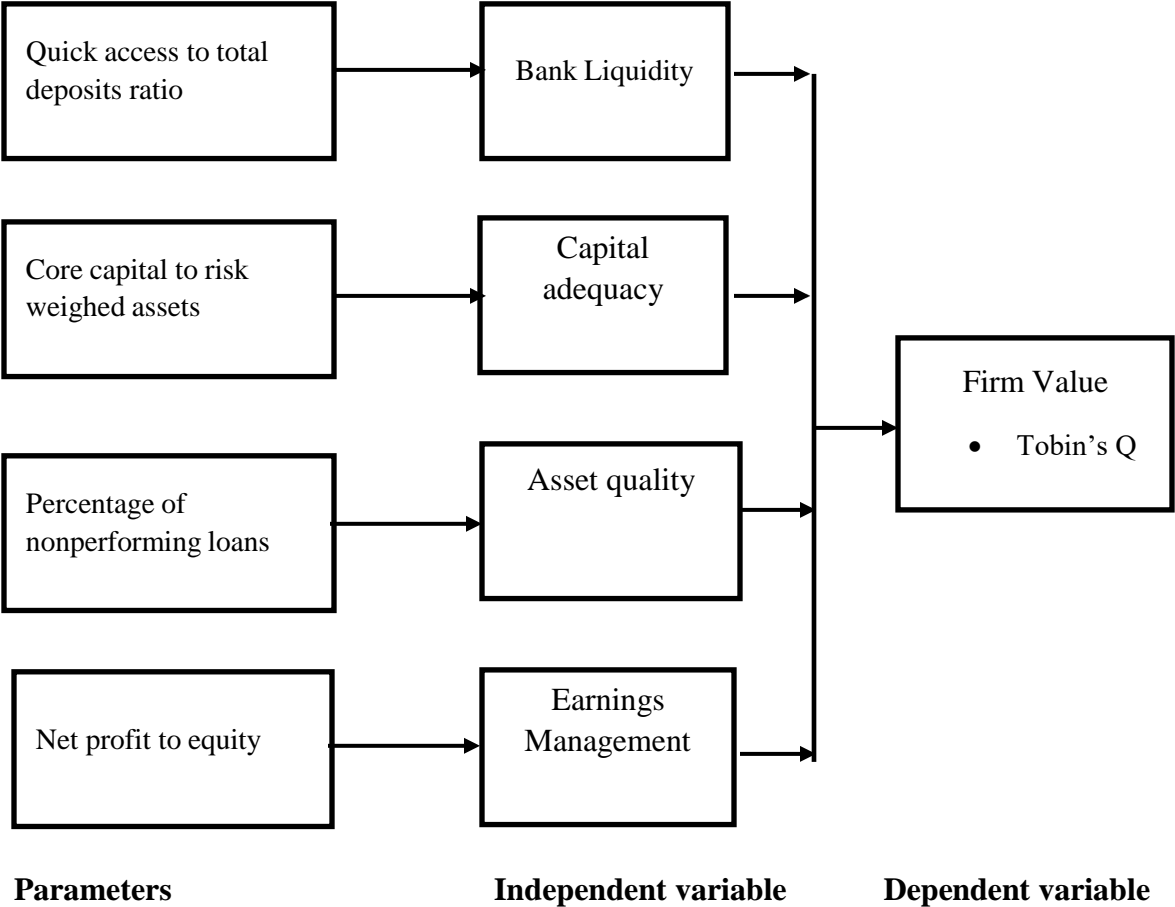
Earnings Management – The approaches a firm uses to manage the earnings earned. The manner and frequency as well as timing of cash flows should be given much attention by the management of banking industry. Careful analysis is done on the various source of income for the banks which come from various diversified source. Other basic concepts such as profit before interest and taxes, are used for the study of specific facets of commercial bank activities (EBIT). Earnings will be calculated using the net benefit to equity ratio for the purpose of this report. A study by Muthee (2020) established that earnings ability is a paramount factor that affects financial performance of firms operating in the financial sector.

**2.5 Operationalization Framework**

Figure 2.3 summarize the variables that have been used in the study and their operationalization.

**Figure 2.3:**

*Operational framework*



**Source:** Researcher (2021)

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

Profoundly, this chapter presented a thorough overview of the methods of the research with respect to the study goals. The method of the study used during the execution of this research is critically discussed. Therefore, the segment starts by offering overview of the research studies. Other section address by the chapter includes difficulties found with the study strategy, the community and the kind of knowledge to be obtained, edge analysis, method of testing and examination. Information assortment instrument, information assortment strategy, legitimacy and unwavering quality of instrument, the information and the information investigation and introduction are talked about.

#### **3.2 Research design**

As related to analysis, Saunders et al. (2016) suggest that the research design is the structural plan that is used to provide an effective solution to both the research issue and the regulation of multiple analysis variables. A successful research design has a well specified objective, according to Gupta and Rangi, (2014) and the consistency of empirical problem the proposed method of research. Correlational research design was adopted covering the period 2009 to 2020 in deciding the goal of the project. It assumed that there was a cause affect relationship between dependent and independent variables. According to Creswell (2007) descriptive research design is very helpful in conduction of analysis, as it gives detailed evaluation of all variable study.



### **3.3 Target population**

With respect to research data gathering, a target population is defined as a wider group of all the people from which a survey (Pernecky, 2016). The research unit is the individual participant or the body of which the calculation is carried out, as defined by Cooper and Schindler (2013) for this study, NSE-listed commercial banks were therefore the target group. This report was of concern to the all NSE-listed commercial Banks, annex 1 include the list of banks used for this research. Since the target population was small (11) and readily accessible the study used census, where the entire target population as its sample size.

### **3.4 Research instruments**

The data was collected from audited and published financial statement and other corporate handbook of commercial bank listed in Kenya, central bank and commercial bank of Kenya websites. The study further depended on monetary policies information from monetary policy statement and important report from central bank of Kenya. The Document review guide/checklist was used to collect secondary data so as to ensure all the important dimension of interest are captured.

#### **Validity of the research instrument**

Validity is an important research instrument since it evaluates or assesses what it has been made to assess to ensuring document review guide design the collect scale of data it meant to collect; in this research the researcher used expert opinion method where the input of resourceful sources and particularly the supervisors' comments was considered very

important. The content dimension and scope of document review guide was improved until the supervisors are satisfied on the research validity status.

This thesis evaluated the instrument, which was a very important idea for analysis, for reliability and validity. Validity checks are done for testing research instrument for specificity and importance and also to evaluate the degree at which the conclusion to be obtained after examination truly describe the phenomena being tested.

The current research used the widely used measure of validity test, the test of material validity. The material used in the study for validity checks to determine the extent at which data gathered using the study tool might actually show particular domain of credit risk rating indicators/ content on the firm valuation of Kenyan's listed retails bank. Two technical consultants were interested in the determination of material validity; a financial specialist and a testing supervisor. The research supervisor tried to decide the principle that the toll was seeking to calculate while financial specialist decided if the set of items in the instrument correctly calculated the credit risk rating of the firm evaluation of the listed commercial bank in Kenya. The expert then makes reasonable comment on the suitability of questions in the instrument as well as the representativeness of the details. The expert's recommendations on the instrument allowed the researcher to boost the validity of the data collection method for administration.

### **Reliability of the research instrument**

According to Jensen and Johnson (2016), reliability essentially is concerned with the extent research instrument are administered more than one would yield similar results. As Jensen and Johnson (2016), further present, the reason behind the reliability is that any

significant results must be more a one-time instance finding and must be inherently repeatable. It concerns the data reflecting the honest representation of the situation. To ensure reliability of the data collected. The study-collected data from authoritative and official sources such as audited and published financial statements and other corporate handbooks of commercial bank in Kenya, central bank of Kenya and commercial bank of Kenya websites, monetary policy statements and relative reports from central bank of Kenya.

Reliability checks, which calculate the degree at which the tool is error-free and can essentially lead to reliable performance, are most frequently tested using the formula of Using Cronbach's Alpha internal accuracy methodology, the current thesis tested the testing method for reliability. A Cronbach alpha ( $\alpha$ ) reliability coefficient with an absolute value of between 0 and 1 represent the interests the internal precision of the instrument artefacts (indicators) in the Cronbach alpha technique that measure the same feature. Cronbach alpha ( $\alpha$ ). Thus, Cronbach alpha ( $\alpha$ ) indicate the degree to which the different measurements of the same variable produce accurate results. The Cronbach Alpha process generates a reliability coefficient known as Cronbach alpha ( $\alpha$ ), with absolute value of 0-1. Kothari (2012) suggest that this implies better accuracy for a given scale if Cronbach alpha value is 0.7, and the total will be approved otherwise the total will be checked by editing and deleting objects in it. The thesis would then do a reliability check on the study variables using the Cronbach Alpha process.

### **3.5 Methods of data collection**

Data collection refer to information obtained from selected objects in which an investigation is being done. The researcher utilized secondary data for the purpose of this study, for all Kenya's publicly traded commercial banks. Kiecolt and Nathan (2019) argue that the use of information that can easily be obtained by others, research done that can be accessed from multiple publication or pages are secondary evidence. Use of knowledge in this study made it easier to conduct and lower research expenses. The information was from another scholars and this helped in accomplishing the present objectives. For 12 years from 2009 to 2020, data was collected from annual audited statements from bank web pages and the internet. The explanation for selecting the timeframe from 2009 to 2020 was that most bank suffered financial recession between 2007-2008, so it was fair to analyze the value of the banks during the ten-year period after the financial crisis.

### **3.6 Data analysis and presentation**

In addition, to ensure that the specifics are sufficient and that both time series and cross-sectional measurements, hence a minimum bias in parameter estimators, were re-use this analytical panel results, data were collected for twelve (12) NSE banks from a period of 12 years. To analyze obtained statistic data Panel data regression was used this allowed the researcher to obtain a better understanding of the relationship between multiple IVs and DVs (Garson, 2014).

The outcomes from the Panel data regression were produced using SPSS version 23, which provided more comprehensive results. To acquire summarized survey results was

the key goal of regression analysis, this enabled the relation between the variable being analyzed to be quickly identified. Result are provided in the form of frequency tables and figures after regression so that they be evaluated.

$$Y_{it} = \beta_0 + \beta_1 X_{it} + \beta_2 X_{it} + \epsilon_{it} \dots \dots \dots \text{equation i}$$

The aspect of the time series cannot be ignored since the data was collected over time, The following equation was useful.

$$Y_{it} = \beta_0 + \beta_1 CA_{it} + \beta_2 BL_{it} + \beta_3 AQ_{3it} + \beta_4 E_{it} + \epsilon_{it} \dots \dots \dots \text{equation ii}$$

Whereby the variable is identified as follow:

Dependent variable **Y** = Firm value measure through Tobin’s **Q**

While the independent variable **CA**=Capital Adequacy, **BL**=Bank liquidity, **AQ**=Asset quality and **E**=Earning management

t=time in year from 2009 to 2020

Heteroscedasticity, multicollinearity and autocorrelation, diagnostic tests were done to test for normality. Kolmogorov-Smirnov test was used in the research normality test statistics while multicollinearity problem involves dropping strongly correlated variables and checking for the assumption of autocorrelation would detect using Durbin waston test [serial correlation].

Null hypotheses [HO] was evaluated using 5 percent significance level, probability value [p-value] =0.05, where there is approved when the p-value approaches 0.05, and denial of the H alpha [the alternate hypothesis]. Nevertheless, if the P-value don’t surpass 0.05,

then the alternative explanation is allowed and the null hypothesis is dismissed. Software version 21.0 computational package for social sciences [SPSS] was used to help with data processing.

### **3.7 Ethical ethics**

Research ethics are ethical guidelines which are expected to be followed in research by the researches. All research is guided by certain profession standard and ethical principles. Observing the norms ethically in research is very important as it enhances the goal of research study. The research was guided by ethical rules and standards applicable to Kenya Methodist and Kenya at large.

NASCOSTI research permit was used by the researcher to approach relevant institutions for data collection. The researcher got the permit from the national commission for science technology and innovation. When reporting the result of study, the researcher ensured that the research report exactly what was represented by the data collected in order to avoid misinterpretation of the study findings.

## **CHAPTER FOUR**

### **RESULTS AND DISCUSSIONS**

#### **4.1 Introduction**

Ordinarily, analysis of gathered data and interpretation the result emanating from the analysis of the data assembled from the banks listed in Nairobi security exchange [NSE] Which have been consisted from 2009 to 2020. The researcher ensured that only published financial statement from website of the listed commercial banks at the NSE were used in the study as a way of increasing the level of reliability since all these banks publish their periodic financial statement which are subjected to audit. The chapter analyses the variables involved in the study and estimate the conceptual model describe in chapter two. Data collected was quantitatively analyzed through descriptive statistics [mean, standard deviation, maximum and minimum value] and inferential statistics [analysis of variance [ANOVA], moderated regression and Pearson correlation]. The model estimation and the analysis of the result are then discussed. Finally concluding remarks are made. Data description involve a discussion on the source of data and definitions of the dependent and the independent variable.

#### **4.2 Descriptive statistics**

Primarily, the segment of the analysis gives results produced from the quantitative analysis the thesis data to produce descriptive statistics of study's independence and dependent variables. Descriptive statistics presents the mean [M] maximum [MAX] and minimum [MIN] values of variables used in this study together with their standard

deviations [SD]. The results show that the analysis was based on data from 11 listed banks in Kenya.

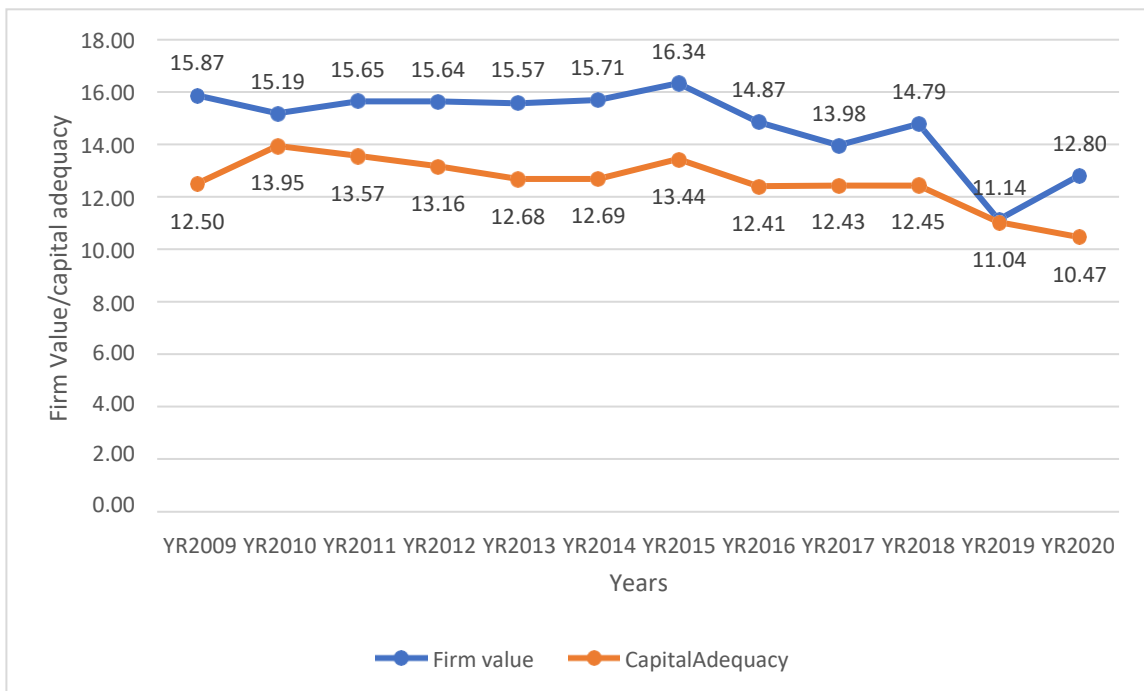
To ensure that quality data was collected for the research exercise, the collected data was reviewed thoroughly, edited and coded before finally feeding into the SPSS software for analysis. Validity and reliability tests were conducted too.

#### 4.2.1 Capital Adequacy and Bank Firm Value

Table 4.1 present the findings on the descriptive statistics for capital adequacy for the years 2009-2020.

**Figure 4.1:**

*Capital adequacy and firm value*





The figure 4.1 results between 2009 and 2008 firm value decreased while adequate financial resources increased from 12.50 to 13.95 between the year 2009 and 2008.

Between 2010 and 2011 there was an increase in firm value to 15.65 while adequate financial resources decreased to 13.57, adequate financial resources decreased from 13.57 to 12.68 in the year 2011 and 2014. During the same period, adequate financial resources decreased from 13.57 to 12.68 while firm value decreased from 15.65 to 15.57.

This observation was made in the year 2014 and 2019, capital adequacy decreased while firm value increased.

During this time; there was an increase of firm value from 15.71 to 16.34 and started decreasing from 14.87 going down to 13.98 then it increased to 14.79 reducing back to 11.14 and then increased to 12.80 in the year 2020. Throughout all this time there was an increase of capital adequacy from 12.68 to 12.69 then to 13.44. the same started decreasing to 12.41 and increased again to 12.43 went up to 12.45 then reduced to 11.04 then 10.47

Nyabaga and Matanda (2020) confirms the findings of this research which found that adequacy of capital an important indicator and it helps bank evaluate their strategies so that they are able to reduce risks thus improve efficiency in their economy.

Further, the study shows that performance of a bank is determined but its capital adequacy since they connected.

Boateng (2019) in his research reviewed that capital adequacy is a useful element in calculating primary capital ratio of financial institutions. More so, Lawalet al., (2018) found that a small decline in interpersonal abilities can result in high decrease in incentive and that improved prompts resource implementation to be increased, leaving another component steady. Locally, Gichobi (2019) in his study on liquidity and expansion of resources critically had relationship with budgetary execution of Kenya's business banks, while resource productivity had an insignificant connection. Financial performance was deeply identified with money related bank execution. In any infinite flow of liquidity and capital adequacy as control variables in relationship between asset quality and monetary execution, liquidity and capital amplitude were found to be the primary factor that were seen as factually noteworthy in budgetary execution in Kenyan Business Banks. The study concluded that the benefit efficiency was imported entirely. In addition, Cheruiyot(2016) evidence show that the competitiveness of commercial banks in Kenya was ultimately positively characterized as profit performance, as the percentage of non- performing net capital was considered low. Non-performing credits trigger wastage of time, capital and properties. This result in a backhanded loss to the bank because of the low productivity of money. This is because bank don't earn premium on the advances thathave been operating for a long time; on the contrary, it hurt the benefit of the bank.

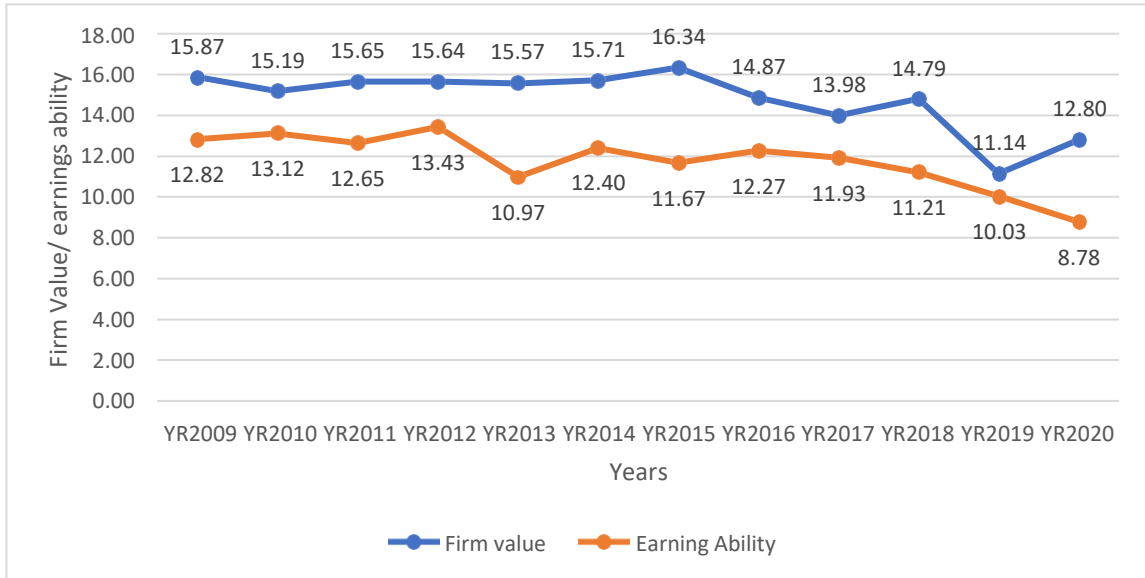
#### **4.2.2 Earning Ability and Banks Firm Value**

Concerning earnings before interest and tax, the Figure 4.2 presents study findings for the years 2009 – 2020.



**Figure 4.2:**

***Earnings ability and firm value***



**Source: research data (2020)**

The above data analysis result indicates in firm value decreased from 15.87 in 2009 to 15.19 in 2010 due to post-election skirmishes in Kenya which happened between 2007 and 2008. The effect of the skirmished whose effect affected firm value in this industry as earnings management continued to increase but at a reduced rate from 12.82 to 13.12 in the same period. The analysis also show that firm value increased from 15.19 to 16.34 between 2010 to 2015. This was because political environment stabilized in the country and this brought about a promising environment for growth. Due to a stable political environment and the completion of most of the infrastructure there were more fluctuations in earnings ability from 2017 to 2020 for the big 4 agenda. This changed to 14.79, then to 11.14 then went up to 12.80 in 2020. This emanated from restated investor confidence which in most cases is the key in development of economy.

In some cases, firm value trend was dissimilar with earning ability of the institutions.

In 2010 there was an increase in earnings ability from 12.82 to 13.12 the same reduced to 12.65 .This was due to the difficult times during the campaign period. This affected most revenue resources for the banking industry. The earnings increased later from 13.43 decreasing later to 12.37 in 2016.This trend ushered in the riskiest time of the year due to the heated political environment in 2017. This decreased the earnings ability to 8.78 in 2020. The COVID-19 pandemic worsened it all.

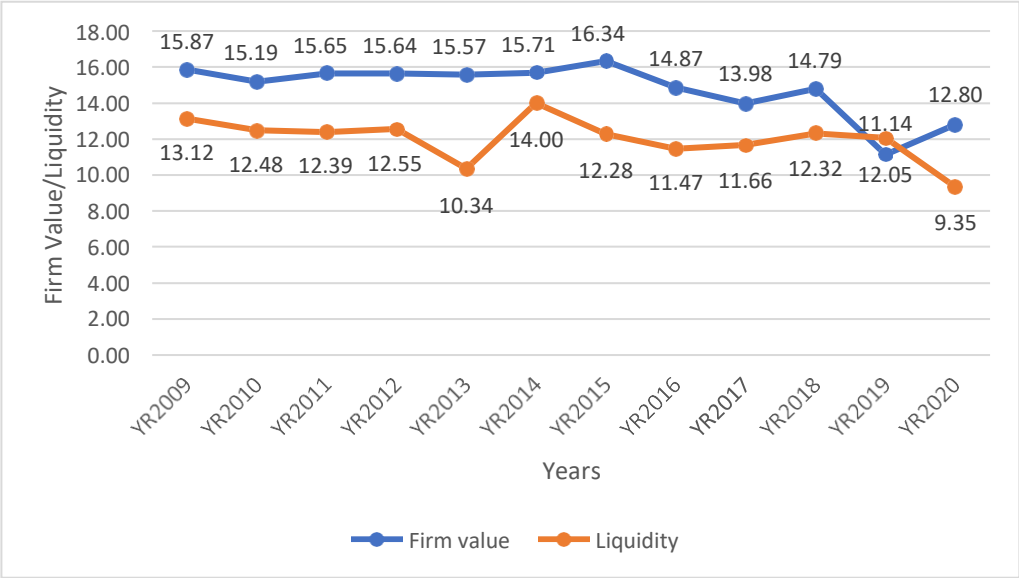
Sile et al. (2019) analysis followed the use of ratios as bank metric of financial output and asset quality as a verifiable way of operations of companies. The results showed that the standard of reserves had a statistically important relationship and had an effect on the credit risk rating of banks an increasing of asset size is connected to the bank's age. More often than not, a bank's loan produces the big share of bank revenue. The key commodity of lenders from which they produce revenue is loans. The efficiency of the loan portfolio is determined by the banks' profitability. Losses derived from unpaid loans are the greatest risk facing a bank. Thus, the safest proxies for asset quality are nonperforming loan levels. Holding the volume of nonperformance is impaired by high non-performing credit. The study suggests banks should embrace use of policies that facilitate income diversification, minimize credit risk and allow them minimize their liquidity holdings, based on the results.

The findings of the study agree that financial instability was impacted favorably and dramatically by earning (measured by ROA). This implies this when measuring the income and liquidity of the bank. Results of the study on the important and positive influence of earnings on financial hardship. This high earning quality will act as a reliable indicator of the future status and operational performance of an organization. It should also mirror the organization's current organization performance.

**4.2.3 Liquidity and Bank firm value**

The finding pertaining to liquidity management in table 4.3 presents for the years 2009-2020 reveal a steady increase generally from 2009-2020.

**Figure 4.3:**  
*Liquidity and firm value*



From 2009 to 2012, liquidity value reduced, this was before decreasing to 10.34 in 2013 from 13.12 in 2009 and 12.55 in 2010. This was a representation of a relatively unstable economic environment that show borrowing platforms had not played a big role as seen in the later years of 2014 to 2019 (liquidity value from 12.48 to 12.05) during which period mobile application platforms had increased and this helped credit availability among borrowers.

During this period credit rating agency become more vocal, default risk reduced and most people were able to borrow from banks. This changed in 2020 when COVID19 pandemic was announced in our country. There was a credit risk increase which reduced the liquidity ratio. As per analysis results between 2011 and 2015 due to a stable political climate, firm value increased from 15.19 to 16.34 between 2016 to 2017 then reduced to 13.98. This was due to a promising stable government. Between 2017 and 2020, due to handshake between president Uhuru and Raila more fluctuation was exhibited this boosted the economic environment in the country.

According to Kibuchi (2019) research findings viability of the bank was determined by the chance of liquidity. If consumers are not presented with the detail pertaining to their funds on time, they lose faith and this may affect the credibility of the banks, which may ultimately affect the profitability of the business.

Onyekwelu et al. (2018), demonstrates that liquidity influences banks' profitability ratios in a positive and significant manner. Liquidity often has a positive and significant effect on the return on capital employees this is in line with this research finding. Efficiency in

liquidity control creates a deep public trust in a country's financial system, and great public faith stops the bank system's 'panic' improving banks' liquidity status. Since economic laws and variables from this study and other similar studies have shown that there is a correlation between good management of liquidity and banking effectiveness, management can rely on the banks' poor liquidity status. Liquidity was deemed legible and negatively associated with asset returns. Onyekwelu et al. (2018) in his study asserts that the above means that liquid asset maintenance, although marginal, has a cost-effective effect on bank earnings. Basically, for banks to satisfy their obligation, they use liquidity to have adequate capital this is why it contrasts poorly with bank performance in terms of asset return.

Boateng (2019) in his study affirmed that Ghanaian banks' output was greatly influenced by liquidity. Charmler et al. (2018) indicate that liquidity have positive significant impact on the return on assets using all bank liquidity indicators. The study reported a positive correlation between net interest margin, bank size, capital adequate ratio, foreign ownership and bank profitability with regard to the control variables. This same thesis suggests that banks need a pre-determined optimum amount of liquid assets to increase credit risk rating of the bank. More so, indicates that liquidity has dramatically affected the profitability of the listed commercial banks in Jordan however, in comparison to bank liquidity tests used in literature, the analysis used rapid ratios as a means of bank liquidity



However, Mananda (2017) show that liquidity was invisibly and negatively related to the return on investment. The finding of the analysis suggest that liquidity is among the factors that impact the financial accomplishments of listed companies in Nairobi. ROA's correlation with liquidity in the study is negative, which means that the credit risk rating of NSE-listing financial companies will decrease as a result of a decline in liquidity. Commercial banks do not gamble on liquidity control to ensure the performance of financial institutions. For the banks to satisfy their financial commitments, they are supposed to retain optimum liquidity ratios. Onyango and Olando (2020) in their study revealed liquidity ratio has a negative association with NPL Ndungu (2019) found that financial distress is brought by liquidity. These results are different from Masdupi et al. (2018), who discovered that liquidity displayed a negative and useful impact on financial hardship. These discrepancies may have been noticed that the onslaught of financial distress seems to have been the recent bank defaults, which in itself created a liquidity incident that led some banks to suffer more financial distress.

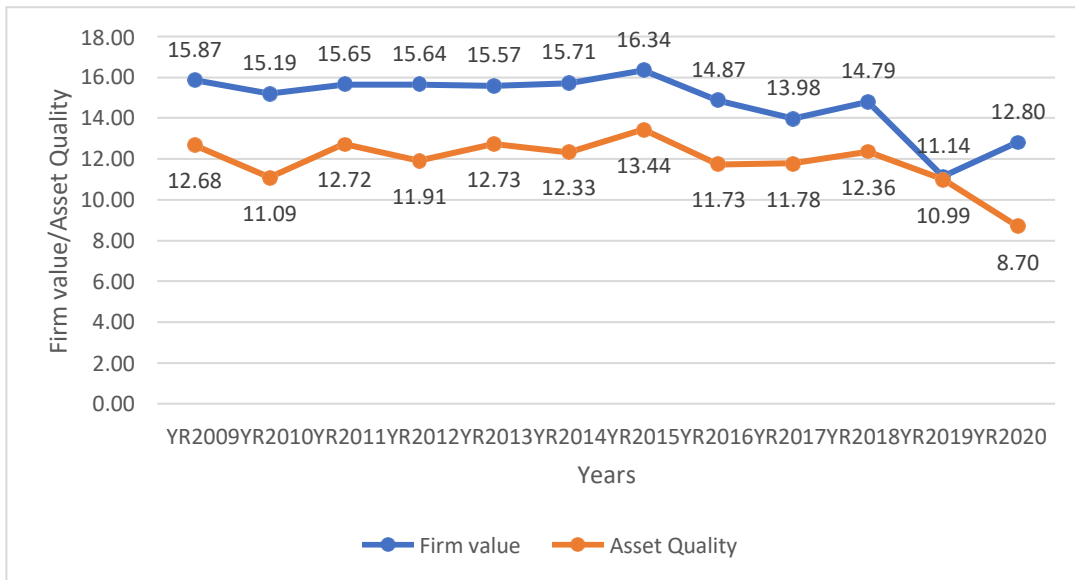
In his research study, Mugenyah (2015) showed that banks use reserves of their own when the rate of interest is higher rather than international borrowing banks use their own reserves. The report's results revealed that the financial health of the retail banks that had disproportionate and had in-house resources used instead of borrowing. Based on this evidence, the investigator concluded that banks need to look at their profitability and liquidity to check their overall performance.

#### **4.2.4 Asset Quality and Banks Firm Value**

Figure 4.4 shows asset quality for the years 2009-2020 show increase mean values from the years 2009 to 2020.

**Figure 4.4:**

*Asset Quality and Firm Value*



For the years 2009 to 2010 there was a decrease in capital adequacy from a mean value of 13.95 to 13.57 in 2009 and 2010 respectively for capital adequacy for the said period firm value dropped from 15.87 to 15.87 respectively. This was due to devastating effects of global financial crisis of 2007 – 2008 which negatively affected availability of capital available for lending. The post-election violence during the elections in Kenya resulted to a devastating effect on the Kenyan economy and in this case the banking industry. In 2014 and 2015 capital adequacy level increased slightly owing to the recovering of the economy due to president Uhuru Kenyatta big 4 agenda and youth empowerment programmes introduced, they increased credit accessibility. During 2017 election preparation this level dropped from 13.44 to 12.41 due to shrunk investments.

Firm value also dropped from 16.34 to 14.87. In 2016 to 2018 there was a slight improvement in the firm value and capital adequacy this was because of stable political environment, following the announcement of COVID 19 cases in Kenya capital adequacy continued to show a downward trend. Between 2017 and 2018 there was an increase in firm value from 13.98 to 14.79 it then reduced to 11.14 and then an increment to 12.80 in the year 2020. During this period there was an increase in, capital adequacy from 12.43 going up to 12.45 then went down to 11.04 then to 10.47 in the year same year 2020. The findings agree to Kaol (2017) research results on asset management effect on the financial performance of Kenya's consolidated commercial banks say that return on assets clarifies performance at 28.7 percent. Notwithstanding this, the bank under review had mixed result after the acquisition or takeover, some registering an increase and some recording a drop-in return on investment. The correlation result showed there was a significant relationship between the success of companies and the return of shareholders whether merged or acquired. A less investment return suggest that a company don't make adequate profits or overinvest in non-profitable properties. By downsizing offerings and relocating to cheaper premises, management will concentrate on reducing the bank's operational costs. That will also sell off fixed assets that are not been used.

Furthermore, Fernandes and Ferreira (2017) revealed that revenue accumulation management have an impact on the exact access of investors to an association's authentic budgetary display. This influence the drawn-out introduction of the reaction of the association to stuns. In such a case, income management collection placed together are

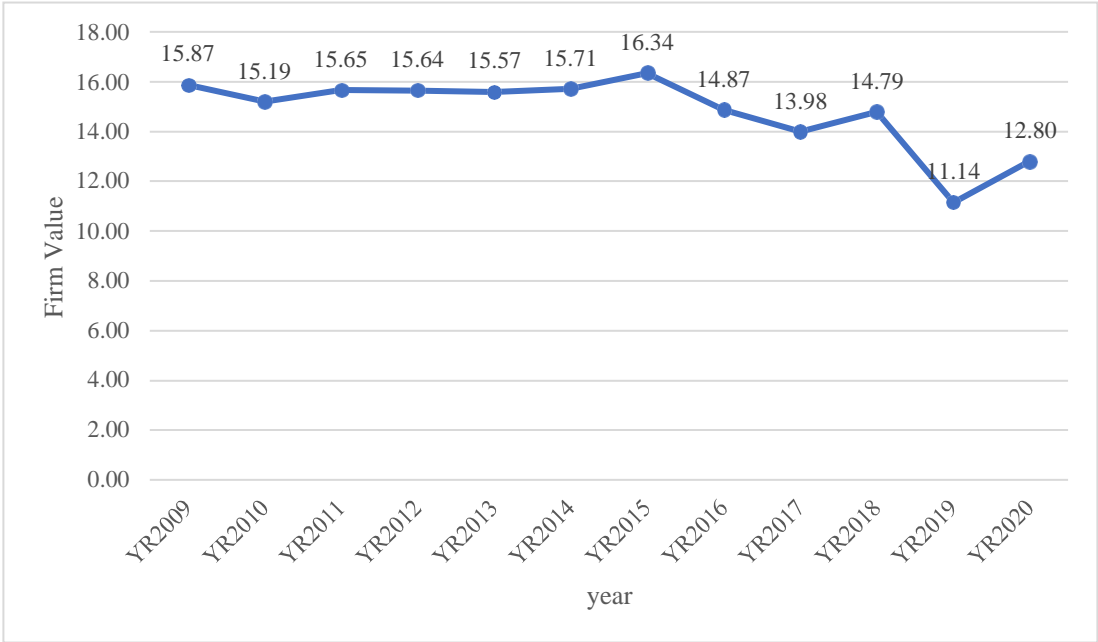
based on having a negative interaction with the association’s money related execution. For the calculation of real money execution, the administration is denied of the opportunity of spearheading benefit management activities, which are based on showing the association’s certified estimate.

**4.2.5 Firm Value over Time**

Over time findings for the firm value for 11 listed banks in Kenya for the years 2009 to 2020 are as tabulated below.

**Figure 4.5:**

*Firm Value*



Compared to the IVs, between 2009 and 2010 firm value registered various fluctuations despite these being minimal from 15.87 to 15.19 and then an increase to 15.65 in the year 2011. These result reveal an increase in firm value in 2016 and 2017 from 16.34 to 14.87 then reduced to 13.98. There was more fluctuation between 2017 and 2020 charging to 14.79, then to 11.14 and up to 12.80.

### **4.3 Hypothesis Testing**

The following test were applied in hypothesis testing: normality test, multicollinearity, heteroscedasticity and autocorrelation. The research evaluated the result to fulfil the basic assumption of CLRM in order to preserve the credibility and usefulness of the regression model. (Brooks, 2008). Then, on fulfilling assumptions, all the knowledge available is assumed to be increased in model. Violation of certain assumptions, however, ensure that some material is left out of the model, the analysis tested for normality, multicollinearity, heteroscedasticity and autocorrelation in this segment to ensure the consistency of the report.

**Result from table 4.13** indicate that all the independent variables in this study have a statistically significant relationship with firm value as they have values of less than 0.05. It is statistically concluded that there is a relationship between credit risk rating and firm value of the commercial banks in Kenya over the 12 years from 2009 to 2020.

Capital adequacy, earning ability, liquidity and assets quality have significant values of 0.22, 0.29, 0.00 and 0.08 respectively.

### 4.3.1 Normality

This research tests the data for normality before using it for inferential analysis to obtain the results in table 4.1.

**Table 4.1:**

#### *Normality analysis*

Year	Kolomogorov- smirmov <sup>a</sup>			Shapiro- Wilk		
	statistic	df	Sig.	statistic	df	Sig.
2009 firm value	237	11	0.086	0.929	11	0.4
Capital adequacy	164	11	.200*	0.918	11	0.3
Earning ability	137	11	.200*	0.925	11	0.36
Liquidity	132	11	.200*	0.953	11	0.68
Asset quality	152	11	.200*	0.928	11	0.4
2010 firm value	0.126	11	.200*	0.973	11	0.92
Capital adequacy	0.18	11	.200*	0.895	11	0.16
Earning ability	0.158	11	.200*	0.971	11	0.89
Liquidity	0.207	11	.200*	0.844	11	0.04
Asset quality	0.168	11	.200*	0.925	11	0.36
2011 firm value	0.214	11	0.171	0.916	11	0.29
Capital adequacy	0.239	11	0.079	0.927	11	0.39
Earning ability	0.167	11	.200*	0.936	11	0.48
Liquidity	0.242	11	0.071	0.846	11	0.04
Asset quality	0.187	11	.200*	0.947	11	0.6
2012 firm value	0.188	11	.200*	0.937	11	0.49
Capital adequacy	0.272	11	0.022	0.877	11	0.1
Earning ability	0.217	11	0.156	0.911	11	0.25
Liquidity	0.163	11	.200*	0.899	11	0.18
Asset quality	0.171	11	.200*	0.939	11	0.5
2013 firm value	0.284	11	0.013	0.88	11	0.11
Capital adequacy	0.184	11	.200*	0.895	11	0.16
Earning ability	0.122	11	.200*	0.948	11	0.62

	Liquidity	0.196	11	.200*	0.941	11	0.53
	Asset quality	0.359	11	0	0.754	11	0
2014	firm value	0.115	11	.200*	0.936	11	0.47
	Capital adequacy	0.186	11	.200*	0.935	11	0.46
	Earning ability	0.164	11	.200*	0.979	11	0.96
	Liquidity	0.118	11	.200*	0.975	11	0.93
	Asset quality	0.172	11	.200*	0.942	11	0.55
2015	firm value	0.239	11	0.078	0.866	11	0.07
	Capital adequacy	0.178	11	.200*	0.961	11	0.79
	Earning ability	0.2	11	.200*	0.929	11	0.4
	Liquidity	0.194	11	.200*	0.94	11	0.52
	Asset quality	0.189	11	.200*	0.913	11	0.26
2016	firm value	0.142	11	.200*	.956.	11	0.72
	Capital adequacy	0.195	11	.200*	0.917	11	0.3
	Earning ability	0.152	11	.200*	0.925	11	0.46
	Liquidity	0.19	11	.200*	0.926	11	0.38
	Asset quality	0.207	11	.200*	0.939	11	0.39
2017	firm value	0.137	11	.200*	0.961	11	0.78
	Capital adequacy	0.137	11	.200*	0.943	11	0.55
	Earning ability	0.155	11	.200*	0.956	11	0.72
	Liquidity	0.221	11	0.14	0.925	11	0.36
	Asset quality	0.21	11	0.19	0.917	11	0.3
2018	firm value	0.163	11	.200*	0.907	11	0.22
	Capital adequacy	0.203	11	.200*	0.957	11	0.74
	Earning ability	0.28	11	0.016	0.9	11	0.19
	Liquidity	0.187	11	.200*	0.916	11	0.29
	Asset quality	0.158	11	.200*	0.979	11	0.96
2019	firm value	0.123	11	.200*	0.949	11	0.63
	Capital adequacy	0.191	11	.200*	0.899	11	0.18
	Earning ability	0.156	11	.200*	0.905	11	0.22
	Liquidity	0.171	11	.200*	0.907	11	0.22
	Asset quality	0.12	11	.200*	0.944	11	0.57
2020	firm value	0.237	11	0.086	0.904	11	0.21
	Capital adequacy	0.109	11	.200*	0.985	11	0.99
	Earning ability	0.106	11	.200*	0.954	11	0.69
	Liquidity	0.148	11	.200*	0.957	11	0.74
	Asset quality	0.151	11	.200*	0.971	11	0.9

\*. This is a lower bound of the true significance  
a. Lilliefors Significance Correction



The data seems to be normally distributed except for liquidity in the years 2010 and 2011 as well as asset quality in 2013, all the other variables had a Shapiro Wilk values of less than 0.05.

Indeed, all the other variables have a Shapiro Wilk of, more than 0.05 all the years under study hence confirming that the data is normally distributed thus need to use regression.

### 4.3.2 Multicollinearity

When IVs are strongly correlated with each other that they share the same knowledge, multicollinearity occur. Thus, the issue of multicollinearity decreases the predictive capacity of the individual IVs. In this case, once the IVs are used, none of the predictor variables will contribute uniquely and substantially to forecast model multicollinearity complete. Multicollinearity happens where the influential factor of variance (GIF) is greater than 10 and resistance is less than 0.1 or 10%. If two IVs are not colinear, the VIF will be 1. If variance of an estimator rises collinearity rises too. A general rule id that multicollinearity is relatively high if VIF is > than 10 (Gujarati 2014).

**Table 4.2:**

***Results for Multicollinearity***

Variable	Tolerance	VIF
Capital adequacy	0.963	1.038
Earnings ability	0.957	1.045
Bank liquidity	0.931	1.075
Asset quality	0.935	1.07

In table 4.2 above the VIF is 1.330 for capital adequacy, 1/042 for Earning ability, 1.292 for Bank liquidity and 1.185 for asset quality indicating a relatively low level of multicollinearity which is insignificant.

### 4.3.2 Heteroscedasticity

In this analysis, panel data was employed and a probability ratio-test for heteroscedasticity was verified. No heteroscedasticity of data in that null hypothesis if the likelihood was greater than 5 percent. When the variance of each error team is unique, heteroscedasticity exists. The study measured heteroscedasticity at a 5 percent significance threshold and heteroscedasticity would have occurred when the p-value was 0.05. This test indicates that the data has heteroscedasticity problem if the P-value is useful at a 95 percent confidence interval, while if the P-value is insignificant (greater than 0.05), the data has no heteroscedasticity problem.

**Table 4.3:**

#### *Result of Heteroscedasticity*

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant)	457	0.458	0.998	0.320	
Capital adequacy	-0.037	0.033	-0.111	-1.104	0.272
Earning ability	-0.023	0.021	-0.094	-1.057	0.292
Liquidity	0.037	0.023	0.157	1.579	0.117
Asset quality	-0.017	0.028	-0.057	-0.599	0.550

In the table 4.3 the p-value for capital adequacy was 0.272, earning ability was 0.292, liquidity management was 0.117 and asset quality was 0.550 which is greater than the significance level ( $p > .05$ ) thus absence of heteroscedasticity.

The research has tested the conclusion of auto-correlation that have no error covariance over time to obtain value of 2.247. The value 2.247 was between 1.5 and 2.5 which implies than an observation error is not associated with another observation error. The research utilized the best -known serial correlation identification test. Durbin Watson to obtain Table 4.4.

**Table 4.4:**

*Durbin Watson auto-correlation*

<b>Model Summary<sup>b</sup></b>				
R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.622 <sup>a</sup>	.387	.368	3.80141	2.247

*a. Predictors: (constant), asset quality, earning ability, liquidity, capital adequacy*

*b. Dependent variables: firm value*

**4.4 Correlation and Regression**

The purpose of this section is to determine whether there is enough statistical evidence in favor of a firm value based on capital adequacy, bank liquidity, asset quality and earnings management.

#### **4.4.1 Correlation**

Pearson's correlation method was used to check the data in the panel results. the data association between the approximate equation residual and adjustable variable was missing when the likelihood value was higher than 5%.

**Table 4.5:***Correlation Test*

<b>Correlations</b>		Firm Value	Capital Adequacy	Earning Ability	Liquidity	Asset Quality
Firm Value	Pearson Correlation	1	.455**	.267**	.489**	.417**
	Sig. (2-tailed)		.000	.002	.000	0.000
	N	132	132	132	132	132
Capital Adequacy	Pearson Correlation	.455**	1	.136	.448**	.334**
	Sig. (2-tailed)	.000		.120	.000	0.000
	N	132	132	132	132	132
Earning Ability	Pearson Correlation	.267**	.136	1	.104	.182*
	Sig. (2-tailed)	.000	.000	.237	.001	
	N	132	132	132	132	132
Liquidity	Pearson Correlation					
	Sig. (2-Tailed)					
	N					
Asset Quality	Pearson Correlation	.417**	.334**	.182**	.298**	1
	Sig. (2-tailed)	.000	.000	.037	.001	
	N	132	132	132	132	132

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

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

Table 4.5, shows that there was significant positive relationship between each of variables capital adequacy( $p < .01$ ), earning ability ( $p < .01$ ), asset quality ( $p < .01$ ) and liquidity ( $p < .01$ ;  $r = 0.489$  had the highest relationship which was a positively high and it was followed by capital adequacy ( $p < .01$ ;  $r = 0.455$ ) which has a moderate positive relationship and then asset quality ( $p < .01$ ;  $r = 0.267$ ) which had low relationship with firm value.

#### 4.4.2 Regression Analysis

Results for the model summary of multiple regression analysis (MRA) that was gotten when firm value regressed against asset quality, earning ability, capital adequacy and liquidity are shown in Table 4.6.

**Table 4.6:**

##### *Regression Model Summary*

##### **Model Summary<sup>b</sup>**

R			
R	Square	Adjusted R Square	Std. Error of the Estimate
.622 <sup>a</sup>	.3870	.3677	3.80141

*a. Predictors: (constant), Asset quality, Earning Ability, Liquidity, Capital Adequacy*

*b. Dependent Variable: Firm value*

Table 4.6 presents the summary model for the MRA. From the study the model explained 36.77% of the variance in firm value of listed commercial banks in Kenya as shown by the  $R^2$ . 0.3677 coefficient of determination implies that against earning ability, capital adequacy, asset quality and liquidity explain 36.77 percent of the variance in firm value of commercial banks in Kenya.

The model goodness of fit using ANOVA had its results in Table 4.7.

**Table 4.7:**

***ANOVA Outcomes***

**ANOVA<sup>a</sup>**

	Sum of Squares	df	Mean Square	F	Sig.
Regression	1158.822	4	289.705	20.048	.000 <sup>b</sup>
Residual	1835.238	127	14.451		
Total	2994.060	131			

a. Dependent variable: Firm value

b. Predictors: (Constant), Asset Quality, Earning Ability, Liquidity, Capital Adequacy

The analysis of variance in the table 4.7 above, the F test of 20.048 shows that the regression explanatory power on the overall significance was strong. This was as a result of ( $F_{4,105} = 20.048$ ,  $p < .001$ ) is greater than ( $F\text{-critical}_{4,127} = 2.445$ ). The significance value of  $p < 0.01$  got shows that the regression model was influential in predicting the relationship between financial soundness on firm value of commercial banks in Kenya and the predictor variable as it was smaller than  $\alpha = 0.05$ . The meaning of significance level is that chances are almost zero the results of the regression model were as a result of random exogenous events instead of the true relationship existing in the model.

The MRA results are captured in the Table 4.8

**Table 4.8:*****Regression Coefficients Results*****Parameter Estimate**

Dependent Variable: Firm value

Parameter	B	Std. Error	T	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Intercept	1.905	1.867	1.02	0.31	-1.793	5.603
[Year=2009]	-0.907	1.727	-0.525	0.601	-4.327	2.514
[Year=2010]	-1.361	1.726	-0.789	0.432	-4.778	2.057
[Year=2011]	-1.141	1.731	-0.659	0.511	-4.569	2.287
[Year=2012]	-0.995	1.725	-0.576	0.565	-4.412	2.422
[Year=2013]	0.127	1.706	0.074	0.941	-3.252	3.506
[Year=2014]	-1.273	1.726	-0.738	0.462	-4.691	2.145
[Year=2015]	-0.414	1.734	-0.239	0.812	-3.848	3.02
[Year=2016]	-0.864	1.695	-0.51	0.611	-4.22	2.493
[Year=2017]	-1.788	1.692	-1.057	0.293	-5.14	1.564
[Year=2018]	-1.266	1.698	-0.746	0.457	-4.63	2.097
[Year=2019]	-3.765	1.669	-2.256	0.026	-7.07	-0.459
[Year=2020]	0 <sup>a</sup>	.	.	.	.	.
Capital Adequacy	0.302	0.13	2.324	0.022	0.045	0.559
Earning Ability	0.186	0.084	2.21	0.029	0.019	0.353
Liquidity	0.377	0.091	4.136	0	0.196	0.558
Asset Quality	0.297	0.111	2.682	0.008	0.078	0.516

a. This parameter is set to zero because it is redundant.

2020 being the base year, there is significant improvement in firm value over the years.

This is as a result of the fact that these firms considered in the study had beta values of less than 0.05. The MRA result indicates that each of the capital adequacy ( $p < 0.007$ ), earning ability ( $p = 0.022$ ) liquidity ( $p < 0.01$ ) and asset quality ( $p = 0.04$ ), and are significant estimators of firm value. The coefficients from MRA model in the Table 4.8 indicates that when each of; earning ability, asset quality, capital adequacy and liquidity is zero, the value of firm value listed commercial banks in Kenya will be 0.605. An increase unit in capital adequacy lead to 0.340 units' increase in firm value, when a unit increases in



earning ability it will lead to 0.186 increase in firm value, when a unit increase in liquidity, it will lead to a 0.339 decrease in firm value and a unit increase in an asset quality lead to 0.308 increase in firm value. On the other hand, a unit decrease in capital adequacy lead to 0.340 units' decrease in firm value, unit decrease in earning ability lead to 0.186 decrease in firm value, a unit decrease in liquidity will lead to a 0.339 increase in firm value and a unit decrease in asset quality will lead to 0.038 decrease in firm value.

Accordingly, the prediction model below was constructed;

$$Y=0.605+0.340X_1 - 0.186X_2+0.339X_3+0.308X_4$$

This indicates that

listed banks firm value of =0.605+0.340 capital adequacy – 0.186 Bank liquidity + 0.339 asset quality + 0.308 Earning ability.

## **4.5 Discussions**

Guided by the analysis results, discussion on assessment were driven by the research objectives; evaluate the influence of banking liquidity on the corporate value; determine the effects of capital appropriation on the corporate; effects of asset quality on the corporate value of listed Kenyan retail banks and earning ability effect on firm value of listed commercial banks in Kenya.

### **4.5.1 Discussion on capital adequacy and firm value**

Findings obtained in this analysis implies that adequacy of capital positively impact on the firm valuation of Kenyan commercial banks. Manada (2017) believes mainly that

capital adequacy is a deciding factor in banks' success while the growth in capital decreases bank performance, albeit on a small scale. In the event of adverse incidents, however, capital forms part of the decline, but it does not rely highly on bank success in terms of earning. Musyoka (2017) actually concludes that financial success with Kenya's commercial banks is inverse and important. However, considering the fact that there are types of financial institutions such as microfinance, insurance undertakings, saving and loan cooperative societies, mutual funds and others, the context of the study was commercial banks in Kenya. The results are confined to the background of the analysis, which is that of commercial banks in Kenya.

In his research, Kaol (2017) indicates that when an entity has higher capital adequacy, its financial performance is low. The findings also revealed that some of the banks registered an improvement in the capital adequacy ratio, while others, after the merger event, reported a decline. Regression findings showed that after merger or sale, the capital adequacy ratio explained only 3.2 percent of the production discrepancies. The study recommended increasing the capital adequacy ratio by issuing new shares to current owners by rights issues and replacing riskier or more risky loans with safer ones, such as government securities. A rise in the capital adequacy ratio confirms that, when and when due, a bank will satisfy its liabilities and other commitments and be able to handle more losses in the case of consumer default loans. Banks should propose reducing the share of their earnings in order to improve the capital adequacy ratio by paying out dividends, selling new shares to current owners, such as by a rights issue, and eventually replacing riskier or riskier loans with safer ones or government securities.

Nyabaga and Matanda (2020) research suggests major positive effects on equity and asset returns of capital adequacy (ROA). The study concluded that the effect on capital adequacy and the size of banks had a substantial positive effect. Moreover, the analysis by Bhattarai (2019) finds that the CAR has a significant correlation with commercial banks financial performance in terms of ROA in Nepal. Capital adequacy has been found to influence the efficiency of Ghanaian banks substantially, according to Boateng (2019).

Udom, and Eze, in the analysis of (2018). The adequacy of capital firmly and effectively encourages, improves and grows the financial output of commercial banks and may result in better performance through ample capital and adequate management. As shown by the 0.733 correlation coefficient, the strong positive association between commercial banks' equity and ROA was found by (Kamande et al., 2016). Arise in unit capital adequacy of the regression model achieved by stabilizing the other variables will help to increase the ROA of banks. The sustainability of capital is measured by the capital adequacy ratio in the study (CAR). The capital adequacy ratio represents the internal potential of the Bank to handle recessionary setbacks. In crisis situations, the ration of capital adequacy correlates directly to stabilization of the Bank. It also has a significant influence on banks' profitability by evaluating their growth into risky yet lucrative businesses or regions.

#### **4.5.2 Discussion on earning ability and firm value**

According to Ndungu (2019) earning (measured by ROA) positively and significantly affect financial distress. This means that when the earning and liquidity measures of the bank increase. The study findings on the significant and positive influence of earnings on financial distress. That high-earning quality is a reliable indicator of future going concern

status and operating performance of an organization, this should also mirror the organization's operating performance. In this study, it was found out that earning ability have statistically insignificant effect on firm value among Kenya commercial bank. This observation, is different from those of Masdupi et al. (2018), which shows that the sales capacity affects financial distress adversely and significantly. Analysis by Mwangi (2014) revealed that the negative correlation between interest-rate vulnerability and financial performance of commercial banks. This report act as an advisor to commercial banks so that they treat their risks effectively, as risk control have a beneficial influence on the financial performance of the commercial banks. This same study notes that commercial banks management must monitor their banks' regularly and susceptibility to interest rate exposure.

In addition, the result of the review of the estimated ratios from the financial statement of the selected banks in the report by Boateng (2019) showed that earning stood out as the highly relevant factor affecting the success of banks in Ghana. A percentage improvement in earning would result in a whopping ROE-measured 82.5 percent rise in bank results. Results from Mananda (2017) show that earning potential is positively linked, but negligible, in terms of resource provision and control, sufficient consideration should be paid to capital adequacy, income capability that is favorably associated with the success of commercial banks. The research shows that earning potential was negligible and positively linked to bank results. It also shows that if the banks manage well their overheads, they improve their efficiency. Banks have three available streams in total of funding, in the form of retained profits, debts instrument and equity. The consistency of the financing from the listed source must be closely examined and the return on

investment must be explicitly influenced. The study of Kamande et al. (2016) revealed a weak positive correlation between the ROA in commercial banks and earning potential.

Forsyth and McMahon (2018) revealed that internal equity was calculated using retained earnings against the gross asset ratio, while published share capital was measured using external equity-reflecting overall capital. By calculating company turnover, the degree of firm growth was determined. The size of the company was regulated and it was reported that there was a relationship between internal equity factors, whilst external equity offered a mixed outcome at 10% significance internal level, suggesting both negative and positive outcomes. The outcomes revealed that internal equity improved the growth rate of the company, while external equity did not help the company's growth at all.

#### **4.5.3 Discussion on liquidity management and firm value**

The findings reveal that there was a negative impact of liquidity management on firm value among Kenyan Commercial Bank was negligible. In the analysis by Musyoka (2017), these agree the findings that the relationship between ROA and liquidity is optimistic and negligible. The test finding revealed that there is negative. The finding in this study support those in Mananda (2017) revealed that liquidity was insignificantly and negatively link to asset return. Liquidity was thus considered to be negligible and to be adversely correlated to asset returns. This means that, while negligible, holding liquid asset has a cost impact on bank results. Basically, liquidity is used by banks to provide enough funds to meet their commitments, this is why it compares adversely with bank success in terms of asset return. Based on the result of Musyoka (2017) report, there is no

substantial financial success and liquidity relationship between commercial banks in Kenya.

However, the Onyango and Olando (2020) research show there is negative low significant association in liquidity ratio with non-performing loans at a 5 percent significance level, whereas Ndungu (2019) in his study asserts that liquidity has a favorable and significant impact on financial distress. This suggests that the bank's liquidity steps would improve. Masdupi et al. (2018) discovered that liquidity affects financial distress adversely and substantially. These discrepancies may have been noticed that the onslaught of financial distress seems to have been the recent bank defaults, which in itself created a liquidity incident that led some banks to suffer more financial distress. The results of Boateng (2019) review showed that liquidity had a major effect on Ghanaian bank's performance.

The findings in the analysis by Charmler et al. (2018) suggest that liquidity is strongly correlated with the return on assets using all bank liquidity metrics, while the ratios of liquid assets to total assets are weakly positive. An insignificant negative relationship to overall interest-bearing liabilities was found between return on equity (ROE) and net assets. The study revealed a positive correlation between bank size, net interest margin, capital adequacy ratio, foreign ownership and bank profitability with regard to the control variable. The study suggests that banks need a pre-determined optimum amount of liquid assets to increase profitability would be decreased should be decided by the banks.

The report of Onyekwelu et al. (2018) found that liquidity had a positive and important impact upon the return on capital employees and also had a positive and meaningful effect on the profitability ratios of banks. Efficient liquidity management creates strong public

faith in a country's financial system and good public trust avoids a 'run' on the banking system and thus the banks liquidity condition. Because economic laws and variables from this study and other related studies have shown that there is a link between successful liquidity management and banking efficiency, management may be dependent on the weak liquidity status of Nigerian banks. There is also a need to devise policies that will strengthen the efficient management of liquidity in Nigeria banking sector and the public use of currency. Khan and Ali (2016) disclosed an optimistic and useful association between liquidity and commercial bank profitability in their report. However, the report cautioned that the limited sample size indicated that the finding for the whole banking sector in Pakistan could not be generalized.

In the review by Kamande et al. (2016) a weak positive correlation between ROA and liquidity of commercial banks was examined the liquidity effect on the profitability of commercial banks showed that liquidity had a large influence on performance. There was a negative balance between loan loss guarantees for total loans and a positive relationship for total loans and total assets. Nyabate (2015) research suggest liquidity as one of the variables affecting the financial performance of companies listed on the Nairobi stock exchange. ROA and liquidity relationship in the analysis is negative, meaning that a reduction in liquidity would result in a decline in the financial output of NSE-listed financial firms. Commercial banks do not gamble on liquidity control to ensure the performance of financial institutions. Banks are required to retain optimum liquidity ratios so that they satisfy their financial commitments.

#### **4.5.4 Discussion on asset quality and firm value**

Asset quality has an inconsiderable positive impact on firm value among Kenyan commercial bank. According to the study it was shown to have an association with firm value ( $p = .008$ ) it had an inconsiderable impact on the firm value. This is per Nyabaga and Matanda study (2020) which indicated inconsiderable positive impact on ROA. A study by Boateng (2019) asset quality was found to be significantly affecting the performance of Ghanaian banks. The analysis by Sile et al. (2019) showed that the standard of reserves had a statistically relevant relationship and impact on the financial performance of banks. These observations also endorse Musyoka (2017's) study of the negative and marginal relationship between asset quality of trade banks and ROA. The results of this analysis have shown that there is no substantial relationship between commercial banks in Kenya in terms of financial performance and asset quality. Kenya's efficiency of the properties was related to retirement banks' financial reports. Also indicates that the success of 28.7% is clarified in terms of asset return (2017) in relation to the influence of Asset management on the financial outcomes of the combined commercial banks in Kenya. Nevertheless, the banks under review saw inconsistent results after the merger or take-over, which some seeing and improvement and some seeing a decrease in the return on investment. The result of the correlation showed that the shareholder return and the results of the companies that had merged or acquired were closely related. A low return on investment means a business does not make enough profit or overinvest in non-profitable properties. Through downsizing services and relocating to cheaper premises, management will focus on reducing the operating expense of the bank. Fixed assets that are not being used will also be sold off. The analysis by Lucky and



Andrew (2015) concludes that the quality of reserves and the profitability of commercial banks are substantially related. It advises that before and after credit, the bank lending climate should be well investigated and that regulatory authorities should maintain a stable bank lending environment in order to deter the occurrence of non-performing loans to increase the profitability of retail banks in Nigeria.

## CHAPTER FIVE

### SUMMARY, CONCLUSION, RECOMMENDATIONS

#### 5.1 Introduction

This chapter summarizes and present the research finding on the effect of credit risk rating on firm value of commercial banks in Kenya. For clarity purpose, the discussions are based on the research objectives of the study. Each objective is discussed separately such that there is a summary, discussion of findings and its conclusions. The study provides policy recommendations limitation and recommendation for further research.

#### 5.2 Summary of finding

##### **Bank liquidity of firm value**

The study found that the bank liquidity has negative and insignificant effect on bank firm value ( $\beta= 0.307$ ,  $p<0.01$ ). This means that an overwhelming probability for a bank to turn its reserves into cash will lead to a strong willingness to convert to cash in the event that a need to do so occurs, thereby adversely impacting the valuation of the business. This means liquidity risk affects the financial efficiency of commercial banks in Kenya. The study finding showed that the probability of the bank was determined by the chance of liquidity. So, successful liquidity decision is statistically relevant and can thus be used to describe how listed banks financially.

### **Capital adequacy on firm value**

The study found that capital adequacy has a positive and significant effect on bank firm value ( $\beta = 0.220$ ,  $p = 0.007$ ). This advocates that the minimum statutory reserves of capital which all commercial banks as well as other financial institutions are required to have for higher firm value. The finding shows that there was a favorable relationship between the adequacy of capital and competitiveness, suggesting that there was a positive change in the appropriateness of capital against the aggregate efficiency of banks and the related financial stability. So, capital adequacy is shown as being among the most integral factors that would always allow banks to determine their risk reduction strategies that corporations should follow to boost their performance in each economy. The study showed that capital adequacy dictates the success of banks and they are strongly linked.

### **Asset quality on firm value**

The study found that asset quality relates positively to banks firm value ( $\beta = 0.22$ ,  $p = 0.004$ ). The strength of a company when faced with risks is improved by institutional loan's quality. Hence improving banks firm.

According to the findings, a slight reduction of operational efficiency brings about profit reduction and also increase in income diversification brings about increase in financial performance.

Hence, the quality of the firm asset is related to the profit acquired by commercial banks in Kenya in a positive way. This is because non-performing asset ratio was lower than the net assets.

### **Earning firm value**

The study finally found that earning positively and significantly affect banks firm value ( $\beta= 0.165, p<0.22$ ). This suggest that high levels of commercial bank net benefit from its overall operation improves bank's firm value. The finding of the study show that high quality of earnings can serve as a credible predictor of a bank financial efficiency. It should also mirror the actual operational efficiency of the listed banks.

### **5.2 Conclusion**

From the study, it was concluded that, when the significance level is 5%, firm value of listed commercial banks in Kenya has negative liquidity which has a moderate and importance effect to the commercial banks.

The study predicted that at a 5% significance level, significant effect on a firm value listed in commercial banks in Kenya has a strong capital adequacy.

In conclusion also 5% significance level on assets quality has a stronger positive significant effect on firm value on commercial banks in Kenya as it contributes 0.222 to the value of firm value of listed commercial banks in Kenya. Also significance level of 5% on earning ability is stronger than moderate effect on firm value of commercial banks listed in Kenya. The study also concludes that significant value of % has a stronger and moderate earning ability.

The study further concludes that at 5% significance level, earning ability has a strong moderate significant effect on firm value I Kenya for all the listed commercial banks since it contributes 0.1654 to the value of commercial banks listed in Kenya.

### **5.3 Recommendation**

The following recommendations are given from the outcome of this research. This include policy levels and the firms.

The study recommends that managers should enfold equity generated internally. This is because it is a cheaper and a readily available capital. Resource that promote credit risk rating of the firms.

There should be minimal external finance usage since it created financial distress for the firms.

The government should use conducive policies for a better economic environment to ensure firms remain productive. Through this, firms will build more internal capital, thus retain earnings, and create reserve that will foster levels of their credit risk rating.

The government should ensure there is low inflation levels, reduce foreign exchange rate this will bring about stable market interest rate.

Secondly, capital markets (CMA regulators) should maintain strong measures so that only the most deserving cases in listed banks are issue with external equity.

All this will be possible, if the threshold compliance level is raised and conducted in a good manner and a strict analysis of corporate financial performance done prior to giving approval for equity issuance.

### **Recommendation for further research**

In the research study, credit risk rating impact on the firm valuation of commercial banks in Kenya was analyzed using the variables selected. In future scholars involved in authenticating accuracy outcome of this research and present additional findings for this study may also give variables such as ownership within the banks, macro-economic, corporate governance.

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## **APPENDIX I: List of Commercial Bank in Kenya**

1. Barclays Bank Limited
2. Stanbic Holdings
3. I&M Holdings Limited
4. Diamond Trust Bank Kenya Limited
5. HF Group limited
6. KCB Group Limited
7. National Bank of Kenya Limited
8. NIC Group PLC
9. Standard Chartered Bank Limited
10. Equity Group Holdings
11. The Co-operative Bank of Kenya Limited

**APPENDIX II: Data collection Sheet 1**

	Bank liquidity		Capital Adequacy		Asset quality		Earnings		Firm value	Bank Code
	Quick assets	Total deposits	Institutional Capital	Risk Weighted assets	Debt	Total assets	Net profit	Equity	Tobin Q ratio	
2009										
2010										
2011										
2012										
2013										
2014										
2015										
2016										
2017										
2018										

**APPENDIX 111: Data collection sheet 2**

<b>NBK</b>						
<b>CA</b>	<b>EBIT</b>	<b>LM</b>	<b>BC</b>	<b>TQ</b>	<b>Y</b>	<b>AQ</b>
33.1	0.184	<b>.35</b>	<b>0</b>	0.986	2009	.0889
36.92	0.204	<b>0.41</b>	<b>0</b>	1.100	2010	.0902
29.18	0.148	<b>0.34</b>	<b>0</b>	0.542	2011	.0952
0.2842	0.148	<b>0.3</b>	<b>0</b>	7.041	2012	0.0971
0.2414	0.094	<b>0.42</b>	<b>0</b>	7.093	2013	0.0977
0.1393	0.071	<b>0.315</b>	<b>0</b>	7.19	2014	0.0989
0.1399	-0.104	<b>0.307</b>	<b>0</b>	7.23	2015	0.0994
<b>STANCH/ RT</b>						
.07	0.057	<b>1.57</b>	<b>0</b>	7.241	2017	0.1001
.16	0.001	<b>1.61</b>	<b>0</b>	7.271	2018	0.1125
<b>CA</b>	<b>EBIT</b>	<b>LM</b>	<b>BC</b>	<b>TQ</b>	<b>Y</b>	<b>AQ</b>
.141	0.173	.49	2222	0.92	2009	0.1151
.1432	0.264	0.55	2222	3.643	2010	0.1153
.1403	0.284	0.34	2222	2.233	2011	0.1150
0.1803	0.262	0.39	2222	6.276	2012	0.1155
0.208	0.256	0.38	2222	6.286	2013	0.1157
0.1981	0.257	0.46	2222	6.361	2014	0.1169
0.2115	0.154	0.5374	2222	6.442	2015	0.1182
0.2091	0.203	0.5693	2222	6.574	2016	0.1204

.16	0.151	1.01	2222	6.661	2017	0.1231
.19	0.174	1.07	2222	6.709	2018	0.1273
<b>NIC</b>						
<b>CA</b>	<b>EBIT</b>	<b>LM</b>	<b>BC</b>	<b>TQ</b>	<b>Y</b>	<b>AQ</b>
.1499	0.160	.291	<b>3333</b>	1.365	2009	0.1302
.1551	0.2223	0.3	<b>3333</b>	1.977	2010	0.1307
.1589	0.257	0.27	<b>3333</b>	0.957	2011	0.1310
0.3204	0.177	0.3538	<b>3333</b>	6.298	2012	0.1313
0.1562	0.188	0.2854	<b>3333</b>	6.393	2013	0.1331
0.2086	0.18	0.3308	<b>3333</b>	6.534	2014	0.1358
0.2047	0.173	0.298	<b>3333</b>	6.627	2015	0.1375
0.2162	0.145	0.3852	<b>3333</b>	6.754	2016	0.1398
0.17	0.121	.77	<b>3333</b>	6.780	2017	0.1401
0.184	0.119	.601	<b>3333</b>	6.785	2018	0.1422
<b>KCB</b>						
CA	EBIT	LM	BC	TQ	Y	AQ
0.2007	0.181	0.30	4444	0.93	09	0.0891
0.2161	0.183	0.31	4444	2.773	10	0.0894
0.1928	0.248	0.31	4444	1.255	11	0.0889
0.2272	0.204	0.355	4444	6.475	12	0.0899
0.2245	0.196	0.333	4444	6.524	13	0.0906
0.2101	0.22	0.313	4444	6.574	14	0.0912
0.1536	0.204	0.3	4444	6.623	15	0.0918



0.1988	0.204	0.303	4444	6.672	16	0.0925
0.88	5.378	.682	4444		17	0.0931
0.91	0.229	.702	4444		18	0.0939
<b>I &amp; M</b>						
CA	EBIT	LM	BC	TQ	Y	AQ
.1988	0.241	0.41	5555	0.100	09	0.0844
.1992	0.182	0.44	5555	0.120	10	0.0846
.2062	0.229	0.38	5555	0.188	11	0.0853
0.1734	0.248	0.3546	5555	6.150	12	0.0859
0.1902	2.088	0.3402	5555	6.314	13	0.0879
0.1885	0.251	0.31	5555	6.379	14	0.088777
0.192	0.23	0.335	5555	6.434	15	0.08947
0.1815	0.21	0.3726	5555	6.526	16	0.0906
.19	0.153	.55	5555	6.531	17	0.0899
.196	0.161	0.58	5555	6.539	18	0.0912
<b>HFB</b>						
CA	EBIT	LM	BC	TQ	Y	AQ
.4721	0.057	0.54	6666	1.496	09	0.079
.4873	0.089	0.55	6666	0.668	10	0.086
.3403	0.132	0.34	6666	0.598	11	0.080
0.2952	0.162	0.368	6666	5.823	12	0.082
0.2158	0.17	0.3312	6666	5.962	13	0.079
0.151	0.149	0.3076	6666	6.130	14	0.084

0.1812	0.113	0.2804	6666	6.177	15	0.0857
0.1768	0.119	0.2105	6666	6.308	16	0.086
.17	0.028	.46	6666	6.310	17	0.088
.1777	0.12	.49	6666	6.316	18	0.091
<b>EQUITY</b>						
CA	EBIT	LM	BC	TQ	Y	AQ
.2691	0.185	0.38	7777	2.319	09	0.107
.2788	0.262	0.4	7777	3.641	10	0.110
.2167	0.301	0.37	7777	1.733	11	0.097
0.3009	0.281	0.46	7777	6.299	12	0.112
0.2356	0.258	0.34	7777	6.390	13	0.114
0.1733	0.269	0.304	7777	6.409	14	0.114
0.9952	0.24	0.291	7777	6.483	15	0.115
0.9386	0.203	0.477	7777	6.566	16	0.117
1.8	0.088	.02	7777	6.571	17	0.117
1.813	0.112	.448	7777	6.583	18	0.119
<b>DIAMOND</b>						
CA	EBIT	LM	BC	TQ	Y	AQ
.1799	0.179	.32	8888	2.425	09	0.0543
.1843	0.278	0.36	8888	1.937	10	0.0541
.1679	0.258	0.36	8888	2.083	11	0.0538
0.1983	0.246	0.38	8888	4.831	12	0.0549
0.2052	0.25	0.326	8888	4.879	13	0.0554

0.1894	0.197	0.356	8888	4.929	14	0.0558
0.1768	0.172	0.39	8888	4.978	15	0.0563
0.185	0.129	0.502	8888	5.027	16	0.0568
.13	0.168	.44	8888	5.041	17	0.0572
.149	0.132	.53	8888	5.049	18	0.0579
<b>CO-OP</b>						
CA	EBIT	LM	BC	TQ	Y	AQ
.1441	0.183	.38	9999	1.929	09	0.092
.1451	0.224	0.39	9999	3.222	10	0.098
.1454	0.257	0.27	9999	2.007	11	0.101
0.2379	0.264	0.358	9999	5.255	12	0.105
0.2105	0.26	0.326	9999	5.244	13	0.060
0.2164	0.192	0.338	9999	5.346	14	0.061
0.2125	0.233	0.361	9999	5.387	15	0.061
0.2276	0.207	0.332	9999	5.418	16	0.061
.18	0.165	4.06	9999	5.421	17	.063
.191	0.183	4.071	9999	5.433	18	.063
<b>CFC</b>						
CA	EBIT	LM	BC	TQ	Y	AQ
.177	0.001	0.35	1010	1.151	09	.062
.162	0.072	0.37	1010	2.059	10	.062
.1904	0.095	0.38	1010	0.850	11	.061

0.255	0.11	0.389	1010	5.710	12	0.063
0.2053	0.158	0.679	1010	5.848	13	0.064
0.2108	0.154	0.414	1010	6.016	14	0.066
0.187	0.12	0.737	1010	6.063	15	0.066
0.1812	0.111	0.546	1010	6.180	16	0.085
.17	0.1	.58	1010	6.213	17	0.091
.191	0.141	.585	1010	6.225	18	0.099
<b>BARCLAYS</b>						
CA	EBIT	LM	BC	TQ	Y	AQ
31.26	0.175	0.51	1111	0.87	09	0.0672
31.15	0.337	0.54	1111	2.633	10	0.0679
27.81	0.276	0.42	1111	2.425	11	0.0680
0.2576	0.48	0.468	1111	6.725	12	0.0682
0.1589	0.403	0.42	1111	6.832	13	0.0691
0.1595	0.219	0.442	1111	6.918	14	0.0699
0.184	0.212	0.341	1111	6.991	15	0.1359
0.1786	0.175	0.283	1111	7.116	16	0.1381
.16	0.18	.39	1111	7.224	17	0.1392
.19	0.018	.41	1111	7.309	18	0.1397
<b>BANK CODE</b>				<b>BANK</b>		
0				NATIONAL BANK		
2222				STANCHART		
3333				NIC		

4444	KCB
5555	I&M
6666	HFB
7777	EQUITY
8888	DIAMOND
9999	CO-OP
1010	CFC
1111	BARCLAYS

## APPENDIX 1V: KEMU AUTHORIZATION LETTER



### KENYA METHODIST UNIVERSITY

P. O. Box 267 Meru - 60200, Kenya  
Tel: 254 064 30301/31229/30367/31171

Fax: 254 64 30162  
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Our ref: NAC/ MBA/1/2020/11

12<sup>th</sup> JUNE 2020

Commission Secretary,  
National Commission for Science, Technology and Innovations,  
P.O. Box 30623-00100,  
NAIROBI.

Dear Sir/ Madam,

**RE: MOHAMED MAALIM ISSACKOW ( BUS-3-9590-3/2018)**

This is to confirm that the above named is a bona fide student of Kenya Methodist University, undertaking masters in Business Administration. He is conducting a research titled: EFFECT OF FINANCIAL SOUNDNESS ON FIRM VALUE OF LISTED COMMERCIAL BANKS IN KENYA

We confirm that this thesis proposal has been defended and approved by the university.

In this regard, we are requesting your office to issue a permit to enable him collect data for his masters dissertation.

Any assistance accorded to him will be appreciated.

Yours faithfully,


  
**PROF. Evangeline Gichunge, PhD,**  
**ASS DIRECTOR POSTGRADUATE STUDIES**



Encl.

# APPENDIX V: NACOSTI RESEARCH PERMIT

  
**REPUBLIC OF KENYA**

  
**NATIONAL COMMISSION FOR  
SCIENCE, TECHNOLOGY & INNOVATION**

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**This is to Certify that Mr.. MOHAMED maalim issackow of Kenya Methodist University, has been licensed to conduct research in Nairobi on the topic: effect of financial soundness on firm value of listed commercial banks in kenya. for the period ending : 20/June/2021.**

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