

**EFFECT OF FOREIGN CURRENCY EXCHANGE RATES ON FINANCIAL
PERFORMANCE OF THE BANKING SECTOR IN KENYA**

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DECLARATION

This research project is my original work and has not been presented for examination or award in any other University.

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

Supervisor's Signature.....

Date.....

Mr. Jay Gichana

DEDICATION

To my love and closest friend, my life partner in pursuit of greatness. Darling Queen Diana.

To my loving parents Elly, Evans, Catherine and Mary. You've always and continue to inspire me to seek and realize the merits of knowledge. May this be your heritage into your destiny of distinction.

To you all who know that wisdom is not a product of schooling but of lifelong attempt to acquire it.

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ABBREVIATIONS

CBK	:	Central Bank of Kenya
GDP	:	Gross Domestic Product
USD	:	United States Dollar

ABSTRACT

Kenya has experienced great change in conditions surrounding the banking industry. For the banks to remain competitive and thrive, they are necessitated to evaluate their external factors, which include foreign exchange market variability. However, the available literature has not been able to construct sophisticated measures of fluctuation in foreign exchange rates and definitively establish causal relationship that exists. The objective of this study was to determine the effect of foreign exchange currency rates on the financial performance of the Banking Sector in Kenya. This study employed the descriptive research design in collecting information. The study's target population constituted all the 43 commercial banks in Kenya. The study used purely secondary data which entailed data on the macro-economic environment facing the commercial banks and their financial performance records. The study used quantitative analysis techniques to obtain information on the study variables. Frequency distributions, trend analysis figures and percentages were used to present the study results. In order to establish the relationship that exists between the study's variables, multiple regression analysis was employed. The study found out that exchange rates have a significant positive effect on the financial performance of the banking industry in Kenya. The study also found out that size, and interest rates also have a positive effect on the commercial banks' financial performance whereas inflation has a negative effect. The study thus concludes that the performance of the banking industry is highly influenced by the current currency exchange rates in the country. The study recommends that government through its policy makers should come up with measures and policies that will help control and stabilize foreign exchange rate fluctuation thus creating investor confidence in the securities market. To the managements at the banks, the study further recommends that the issues related to foreign exchange trading should always be taken into account in efforts to improve banks' foreign exchange transactions and financial performance.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The dynamics in the market environments in which organizations operate in has drastically changed in the past decade as characterized by globalization and advancements in technology (Kipchirchir 2011). This has necessitated the leadership of organizations to constantly evaluate and determine the factors that regulate how the firms perform. Particularly, macro-economic variables such as fluctuations in exchange rates have not only influenced not only the business returns but also the sustainability in the business operations. This has made the foreign exchange market become one of the largest financial markets brought about by its importance in a country's economic development (Bakare, 2011)

As international competitiveness increases, the demand and supply for foreign exchange also increases and this upsurges the volume of foreign exchange transactions. This result in constant changes in the exchange rates which are highly unpredictable leading to many economic loses. Despite the theoretical framework like Purchasing Power Parity Theory explaining how the performance of organizations is impacted by foreign exchange volatility, the studies conducted have been inconclusive with both positive and negative relationships being obtained depending on the particular variables investigated (Nyandema & Langat, 2016).

Notably, fluctuations in exchange rates affect firms undertaking international transactions such as commercial banks that transact in foreign currencies (Ahmed, 2015). Exchange

rates mostly affect those commercial banks that operate mainly with foreign currency and also do transactions beyond the borders (Frank, 2015). Since 2010, the Kenyan banking sector has grown tremendously with the size of banks' assets standing at over Ksh. 4.2 trillion, as at 31st December 2016 (Majok, 2015). This trend is expected to continue even further with the recent entry of more foreign banks into the market. However, the highly volatile nature of the exchange rates makes it difficult for the banks to predict the future rate with precision (Farah, 2014).

For the past one year, the exchange rate against the United States Dollar (USD) has depreciated from Ksh. 83 to a low of Ksh 106. The frequent depreciation in currency implies that fluctuation in foreign currency exchange currency still prevails (Mutua, 2013). This is in spite of various measures being formulated by the CBK such as the fiscal policies. This poses a great threat to the commercial banks as they greatly rely in foreign currency exchange in undertaking operations. As such, it is not easy for the banks to forecast future rate with precision and how the financial performance is affected by the exchange rate which is quite volatile.

1.1.1 Foreign Exchange Rates

Exchange rate is termed as the particular value of a certain currency when compared with another. It is obtained when one currency is exchanged or converted to another, thus its value may either increase or reduce (O'Sullivan & Sheffrin, 2003). This often results in foreign exchange risk whereby the company's performance is highly likely to be affected by changes in the foreign exchange market (Ahmed, 2015). The foreign exchange rate constitutes an integral part in any international business transactions both in the developed and developing countries.

The exchange rates in Kenya have been under constant fluctuations since the past ten years. Based on the World Bank Statistics Survey, the country entered 2013 showing an improvement with low inflations but stable interest rates. The inflations were noted to further depreciate to less than 5% from a high of 20% while the shilling stabilized against the dollar and other major trading currencies. The peaceful elections conducted in March 2013 and political stability experienced further boosted the macro-economic variables resulting in a higher growth rate compared to that of 4.3% in 2012 (Frank, 2015).

For the past five years (2012-2015), the Kenya Shilling has been depreciating against the United States Dollar from KShs. 83 in 2012 to a low of KShs 105 in September 2015 (CBK, 2017). The changes in the exchange rates may be brought about by a number of factors namely the trade terms and debt of the public (Otuori, 2013). The lack of stability in the exchange rates could also be due to their being no fixed demand and supply of foreign currency in the foreign exchange market. Owing to the fact that most multinational and financial companies rely mostly in the foreign exchange market, it raises concern on the influence that the fluctuations have on the performance (Farah, 2014).

1.1.2 Financial Performance

Financial performance is termed as the measure of a bank's achievement of its financial goals guided by its financial objectives and benchmarks. It determines how well the business is doing in wealth creation and acquiring of resources (Komppula, 2004). Financial performance could also be termed as the ability of an organization to meet its set objectives effectively. The various financial measures such as the liquidity and

profitability act as important tools to both stakeholders and managers in determining the current financial position of the company (Erasmus, 2008).

Financial performance can be measured by varied approaches which have been adopted by various researchers including return on assets, liquidity, return on investments and cash flows (Wijewardena *et al*, 2004). Return on investment accesses the earnings acquired from both the short term and long term investment. The Return on Assets measures the organizations' profits obtained in relations to the assets that are used. Liquidity on the other hand refers to the firm's ability to be able to cater for its financial obligations without affecting its financial capability. While net on profits is the total amount of gains obtained in a company less the expenses made to obtain that level of profit (Farah, 2014).

Apart from the financial aspects, there are other ways to measure the performance of an organization. This includes the efficiency in operations, reliability and flexibility. This aim at accessing how well an organization is able to conduct its day to day activities and in maximization of the resources available (Wagana, 2014). Thus so as to comprehensively determine the performance of the organization, both the financial and non-financial aspects ought to be taken into consideration. This will enable to improve the various aspects of the organization that are not performing as well as expected.

1.1.3 Foreign Exchange Rates Fluctuation and Financial Performance

Business transactions undertaken where different currencies are involved require the conversion of foreign currency to the local currency for reporting and running operations of the organizations. This is made possible by the exchange rates forex market (Corgel, *et al*, 2013). Over the last decade, scholars and policy makers in both developed and

developing countries have recognized that foreign exchange rates are critical for the establishment and survival of multinational companies (Biller, 2007). The exact role of foreign exchange rates on performance is what the scholars have tried to determine.

Theoretically, the exchange rates have been established to have a significant relationship with the performance of organizations. Purchasing Power Parity theory and the Flow Oriented Model holds that the exchange rates changes affect real income and output in a country. But the theories do not put forward a definite framework to establish the exact relationship that exist (Kipchirchir 2011). Empirically, studies have also confirmed the significant influence foreign exchange rates have on the financial performance (Addae, Nyarko-Baasi & Tetteh 2014; Majok 2015; Irene 2013). However, not all studies have been able to construct sophisticated measures of fluctuation in foreign exchange rates and definitively establish causal relationship (Irungu, 2014). As a result, it is difficult to determine the exact influence brought about by fluctuation in foreign exchange.

1.1.4 Banking Sector in Kenya

The increased innovations and competitions have increased significantly the competition experienced in the Banking sector over the last decade. The sector has grown to record over 20 percent growth in total assets in December 2015 with new players being introduced in the market. This is despite the various challenges posed to the industry such as new regulations and turbulences in the macro-economic environment. This has seen the banking sector to experience developments which aim at ensuring the sector meets the Vision 2030 aspirations (Irungu, 2014).

The Banking Act and the Companies Act in Kenya governs and regulates how the commercial banks conduct their operations through providing various guidelines. As at

December 2017, there were there were 44 banking institutions (43 Commercial banks and 1 mortgage finance company). Out of the 44 banking institutions, 30 were locally owned banks comprised 3 with public shareholding and 27 privately owned while 14 were foreign owned. Of the 14 foreign owned banking institutions, 10 are locally incorporated subsidiaries of foreign banks and 4 are branches of foreign incorporated banks. Further, 10 of the 44 banking institutions are listed in the Nairobi Securities Exchange (CBK, 2017).

Due to the commercial banks providing a wide range of products and services, they constitute an important aspect in the Kenyan financial landscape. They ensure safe keeping and easy access to funds to both individuals and organizations in addition to the loans and counseling services given. With the recent advancements in technology, the banking services have been to be more accessible to the customers through the internet and mobile banking utilities (Farah, 2014). However, due to the banks relying heavily on foreign currencies and transactions, any slight variations in the foreign exchange rates is likely to influence how the banks perform.

1.2 Research Problem

Organizations exist in a dynamic environment whereby they are constantly faced with uncertainties that pose a threat to the success of the firms (Wagana, 2014). Particularly, the macro-environment constitutes a huge determinant of how organizations not only operate but also perform. As such, failure for the organizations to manage their foreign exposures well may have adverse effects on the organizations returns. However, due to the foreign exchange rates constantly changing, it makes it more difficult for the

managements in the organizations to be fully prepared for how to counter it (Todani & Munyama, 2005). The financial performance in the organizations are thus prone to change based on the current exchange rates at that particular time.

The Banking sector is one of the most essential service industries which impact the lives of people. The services given are unique both in social and economic points of view of a nation. Kenya has experienced great change in conditions surrounding the banking industry. For the banks to remain competitive and thrive, they are necessitated to evaluate their external factors, which include foreign exchange market variability (Frank, 2015). This is attributed mainly due to the banks operating on foreign currency hence any slight changes in the exchange rates may have significant impacts on the performance.

This has raised the interest of both scholars and academicians and this has seen several studies been done on the effects of exchange rate fluctuations on financial performance both locally and internationally. Ahmed, (2015) conducted a study on the effect of foreign exchange exposure on commercial bank performance and established foreign exchange exposure has negative effect on the performance. Manyo et al (2016) conducted a study on the effect of foreign exchange transaction on the profitability of Nigerian banks for the period of 2010 to 2014. The result revealed that foreign exchange income has a negative and insignificant effect on the profitability of Nigerian banks for the period. This relates to Runo (2013) who also obtained a negative impact. Farah, (2014) on the other hand conducted a study on oil marketing companies established that there exists no significant relationship between the two variables. This concurs with Njenga (2014) examined the real exchange rate volatility and economic growth in Kenya.

Empirical literature thus confirms contradiction in the findings on the relationship between exchange rate volatility and financial performance as both negative to minimal relationships have been obtained. For the banking industry which face the challenge of currency fluctuations attributable to the fact that there have been periods of rapid depreciation of the Kenyan currency, it would be important to explore how the fluctuations have affect their financial performance. This study aimed at addressing this research gap while answering the research question; how does foreign exchange currency rate fluctuations affect financial performance of the Banking Sector in Kenya?

1.3 Research objective

The objective of this study was to determine the effect of foreign exchange currency rates on the financial performance of the Banking Sector in Kenya.

1.4 Value of the study

To the managers of the various banks, the findings of this study will provide information to guide their management decisions following the changes in the exchange rate in Kenya so as to enable a strong banking industry. It will equip them with the necessary knowledge for taking the necessary action to protect the performance of their organizations.

For the Government of Kenya, the findings of this study will inform the formulation of policies and regulations for a strong and resilient banking industry. The findings of this study will inform the fragile foreign currency reserves making it difficult for the banking industry to transact freely.

For future researchers, the study will be important in providing material for their reference through adding knowledge on the effects of fluctuations in exchange rates and will thus form a basis through which further studies will be conducted.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents literature reviewed in order to provide a basis for the study and the concepts. In addition, the chapter highlights theories guiding the study, determinants of financial performance, empirical studies thereby illustrating the research gap after which it presents the summary of empirical literature.

2.2 Theoretical Framework

The theoretical framework constitutes the philosophical basis upon which the research is conducted. This forms a link between the theoretical aspects and practical aspects of the variables under study. This study adopted two main theories in explaining the relationship that exists between foreign exchange fluctuations and the financial performance. This includes; Purchasing Power Parity Theory and the International Fisher Effect.

2.2.1 Purchasing Power Parity Theory

Purchasing Power Parity theory was proposed by Gustav Cassel in 1918. The theory states that homogeneous goods in different countries cost the same in the very same countries when measured in terms of the same currency (Majok, 2015). The theory makes an assumption that importers and exporters actions are motivated by the differences in prices and induce the spot exchange rates. The theory makes the assumption that there are

no transactional costs or any barriers to the trade with the commodities traded being homogeneous in nature.

However, the main limitation of this belief is in measuring Purchasing Power Parity constructed from price indexes given that different countries use different goods to determine their price level (Reid, 2005). The theory's proposition to the study is that the exchange rate values are affected largely by transactions undertaken in the foreign exchange market. This shows that equilibrium will only be attained when the purchasing powers are in equilibrium. The theory makes the suggestion that the use of price indexes in determining the exact price of a similar product between countries.

2.2.2 The International Fisher Effect

The International Fisher Effect of macro-economic variables was introduced and developed by Irving Fisher in the 1930s who was an economist. According to Fisher, countries have different inflation rates and this causes a similar variation in economic development as well returns (Ross, 2008). The theory holds that relative high interest rates in foreign currencies tend to depreciate in value due to the expected inflation brought about by the high nominal interest rates (Madura, 2012). Despite the theory having limitations in predicting the short run variations in exchange rates, it helps in understanding the exact interrelation between inflation, and both the real and nominal interest rates.

The theory helps in understanding why exactly inflation may not have a significant impact on the real interest in the long term (Nyandema & Langat, 2016). The proposition is that the changes in exchange rates experienced in countries will also tend to rule out any differences that may be obtained as a result of having varying interest rates (Demirag

& Goddard, 1994). This theory is relevant for this study as it explains the purchasing power of each currency which captures the inflation across countries to ensure that at equilibrium exchange rates, the basket of goods and services purchased by one unit of a country's currency equals to those purchased in the second country.

2.3 Determinants of Banks Financial Performance

The financial performance in commercial banks is an integral tool in evaluating their profitability, sustainability and dominance in the market. Different banks have been established to have varying returns despite them providing similar products and services for the same market segment. This raises concern on the exact factors, both internally and externally that determine the returns in a particular bank.

2.3.1 Exchange Rate

The value of a local currency against a unit of the foreign currency is termed as the exchange rate. The exchange rate is not fixed as it tends to vary based on the particular currencies and also the particular time or period. Certain currencies will have a higher value than others, but when the value decreases it is termed as to depreciate. There are many factors that result in changes in the exchange rates and this includes mainly the balance between demand and supply in the foreign market. These changes occur spontaneously and always seem almost difficult to predict. The changes result in the organizations performance to be changed as well. This is however limited largely to those organization undertaking mainly in international transactions or currencies as the locally based ones will be impacted minimally (Nyandema & Langat, 2016). As such high exchange rates will make most foreign investors shun from making any transactions at that particular time. The banks will be affected in the similar way as depreciation in the

local currency will mean reduced transactions such as savings and borrowing resulting in reduced returns.

2.3.2 Inflation

Inflation is referred to a condition whereby the value of currency of a particular currency reduces significantly (Biller, 2007). It could also be seen as the increase in prices of commodities in a country. When inflation occurs it affects almost all the sectors in the economy ranging from international business to the common citizens. The high prices make its unfavorable to undertake in numerous transactions as before. Inflation is seen as an economic crisis and therefore each government ensures that the inflation levels are kept relatively low. However, inflation may also result in positive effects whereby an organization invests heavily before inflation has occurred and later benefit during the inflation period. Yet, inflations are not easily predicted and will therefore in most cases lead to negative effects. The banks thus ought to have mechanisms of predicting or managing inflation levels so as to be consistent in their performance.

2.3.3 The size of the Bank

The size of the bank also plays a role on how the banks will not only perform but also in attaining dominance in the banking industry. (Ahmed, Ahmed & Ahmed, 2010). Large banks may exploit economies of scale and this enables them acquire more client and undertaking in more transactions which translate to more returns. Additionally, the large banks tend to be more trusted by the customers and this implies more clients will opt to invest in them as opposed to the smaller ones. Also, in case a risk occurs, the larger banks are in a position to mitigate it and be affected minimally whereas the smaller banks will

be highly prone to dissolution and insolvency. This has seen most small banks to endeavor to expand their business and market values.

2.3.4 Interest rates

The interest rates comprise the amount charged by the banks during lending. This varies with the type of bank and the amount being borrowed (Manyo et al, 2016). High interest rates tend to discourage people from borrowing and opting to invest more while low interest rates tend to encourage more loans being acquired. This may be exploited by the regulatory bodies when they want to either increase or decrease cash inflow by the banks. In a similar way, the interest rates may also determine the currency values. The interest rates are directly proportional to the demand in that increase in demand will tend to increase the value of the currency. However, the CBK in Kenya ensures that the banks in Kenya do not over exploit their consumers through various measures such as interest control and interest capping (CBK, 2016).

2.4 Empirical Literature

Owing to the importance that exchange rates have to a particular economy, a number of studies have been conducted both locally and internationally trying to establish its impact on organizations. Adetayo (2013) examined how the commercial banks manage the risks that are posed by the foreign exchanges in selected commercial banks in Nigeria. The study sought to determine how the risk involved in foreign exchange can be effectively managed. The study exploited both the primary and secondary sources of information. The study determined that spot transaction technique was effective in minimizing foreign exchange risk. The study however was not able to determine the relationship that existed between the variables.

Addae, Nyarko-Baas and Tetteh (2014) examined the effect of exchange rate fluctuations on Ghanaian banks. The study investigated the sensitivity to exchange rates in the commercial banks found in the Ghana Stock Exchange a five year period. The findings showed that the banks had various risk management strategies. This thus shows that risk management was an integral part in these organizations. The study was however concentrated mainly in Ghana and thus may not be applicable locally in Kenya.

Manyo et al (2016) conducted a study on foreign exchange transaction in selected commercial banks in Nigeria. The study employed data generated from the yearly reports published by the commercial banks. To test for the properties of panel data, Breitung (2000), test of was deployed. Based on the popularity of the result we concluded that the variables had integration values. The result of Kao panel co-integration test indicates that there exists a long run relationship between the variables under study. The study was however inconclusive on the exact relationship type that existed.

Irene (2011) conducted a study on the impact exchange rates have on the Airlines performance. The study employed a casual case study approach to determine the relationship that existed between the variables. The population was the employees in the airline sampled by simple random sampling. The study found out that their existed a negative relationship between foreign exchange risk and performance of the Airlines of Kenya Airways. The study was however on Airlines which have different modes of operations as compared to the commercial banks.

Gachua (2011) conducted a study on the listed companies at the NSE. The study conducted proportional sampling to obtain a sample of 32 firms mostly in the finance sector. The data was collected through questionnaires which were issued to the

companies. Descriptive statics and inferential analysis adopted by the study. The study found that the companies paid close attention to the changes in the foreign exchange as they were being recorded in the accounts books. The study did not however determine the relationship that existed among the variables.

Ahmed, (2015) investigated the impact that foreign exchange risk exposure has on commercial banks performance. Both primary and secondary data was used by the study with a census approach being used so as to include all the commercial banks. The study established changes in the rates had minimal to no risk at all to the banks, as they had placed mechanisms to counter the foreign exchange risks. The study only focused on the interest rates and inflation without considering other macroeconomic variables. Additionally, the study was not able to clearly establish the relationship that existed between the variables.

Majok (2015) investigated exchange rate fluctuations in commercial banks in Kenya. The study used a descriptive research survey. The target population comprised all 43 commercial banks operating in Kenya as at December 2014. The secondary data was collected from the banks' consolidated financial statements as well as Central Bank of Kenya offices. The study found that there was a positive relationship between foreign exchange rate fluctuations and the financial performance of banks as measured by the returns on assets ratio. The study did not consider other macro-economic variables such as interest rates.

2.5 Conceptual Framework

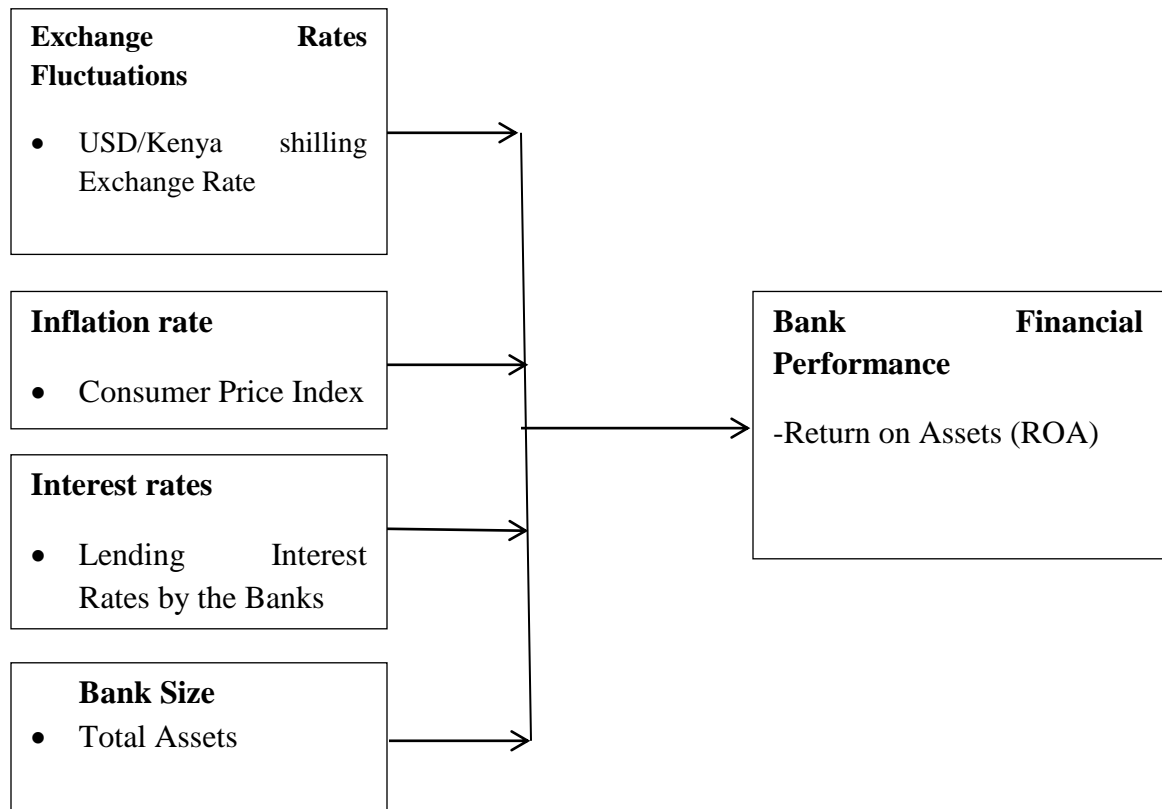
The relationship between the study variables is presented in conceptual framework presented in Figure 2.1. Exchange rate fluctuations will be the independent variable while

dependent variable will be the commercial banks' performance. The control variables will be inflation rate, interest rate spread and the bank sizes.

Figure 2. 1 Conceptual Framework

Independent Variable

Dependent Variable



Source; Researcher 2017

2.6 Summary of Literature Review and Research gap

The correlation between foreign exchange and the banking sector profitability is current issue in literature and has remain of interest among researchers, economists and policy makers alike. This chapter has reviewed literature relevant for the study. It specifically reviewed the theories guiding the study including: the purchasing power parity and the

international Fischer effect which all tend to provide a theoretical approach in understanding how exactly organizations may get affected by foreign exchange rates.

The study further reviewed empirical studies conducted both from international and local perspectives trying to determine the relationship that existed between the variables. The results obtained from the study have shown that changes in the foreign exchange rates in a particular country may impact both positively and negatively on the organizations. Though quite a number of studies have been carried out over the subject matter, there is still no consensus on the effects that exchange rates have on the financial performance of organizations. The studies conducted focus more on other aspects of foreign exchange rate fluctuations such as economic impact and not the performance of organizations.

Similarly, other studies conducted have established that no significant influence exists and relates the performance of organizations to other factors other than the exchange rates. There is therefore a research gap as far as the impact that foreign currency exchange rate has on the financial performance by banks is concerned. It is from the above backdrop that this study sought to examine the effect of foreign exchange currency rate on the performance of the Banking Sector in Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter comprises of the research approach that was used in the study. The chapter covers the research method, target population, sampling technique, data collection process and the analysis aspect of the study.

3.2 Research design

The research design refers to the procedure that was used by the researcher in addressing the research objectives. This study employed the descriptive research design in collecting information. Descriptive research design as described by Mugenda and Mugenda, (2008) entails an organized and empirical enquiry that enables determination of the existence of a particular phenomenon which has either already occurred or cannot be manipulated. Additionally, the design ensures minimal interference by the researcher thus prevents biasness hence the most appropriate. The design enabled building a profile on the effects of exchange rate fluctuations on financial performance of the Banking Sector in Kenya.

3.3 Population

The population of the study entails the specific individuals or elements about which information is desired (Kothari, 2004). The study's target population constituted all the 43 commercial banks in Kenya. According to the CBK banking supervision annual report 2016, there are 43 commercial banks licensed by the CBK as per appendix I. Due to the population being small, a census sampling approach was employed so as to comprise all

the 43 commercial banks in Kenya. A census study entails a complete enumeration of all items in a population (Kothari, 2004).

3.4 Data Collection

The study used purely secondary data. Secondary data obtained entailed data on the macro-economic environment facing the commercial banks and their financial performance records. Macro-economic variables namely; interest rates spread, inflation and exchange rates statistics will be obtained from Kenya National Bureau of statistics on monthly basis for the period of 10 years from 2007 to 2016. While data on the financial performance and bank size was obtained from the published annual reports and company sources as well as CBK's banking supervision reports for years 2007 to 2016. The data was collected through secondary data collection sheets.

3.5 Data Analysis

The study used quantitative analysis techniques to obtain information on the study variables. Frequency distributions, trend analysis figures and percentages were used to present the study results. SPSS version 24 will be used to analyze data quantitatively. SPSS tool is chosen because of its clarity, preciseness, ease of understanding and interpretation.

3.6.1 Analytical Model

In order to the establish the relationship that exists between the study's variables, the following multiple regression model was employed;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + X_4 + \epsilon$$

Where:

Y = Financial Performance of banks measured by Return on Assets

β_0 = Regression constant (y-intercept)

X_1 = Foreign exchange Rate (Kenya Shillings changes against the United States Dollar)

X_2 = Inflation (Consumer Price Index)

X_3 = Interest Rates (Banks' Lending Interest Rates)

X_4 = Size of the Bank (Natural log of Total Assets)

ε = Error term

3.6.2 Test of Significance

The significance of the study was tested through conducting an Analysis of Variance (ANOVA). ANOVA was used as it compares group means by analysing comparisons of variance estimates; that is, whether or not the means of several groups are all equal. This enabled determining whether the model is sufficient enough in measuring the relationship that exists between foreign exchange rate and financial performance of the commercial banks. The F significance value obtained was tested at both the 5% significant level and 95% confidence level.

3.7 Diagnostic Tests

Diagnostic tests on the assumptions of regression analysis were done to ensure that the quality of quantitative assessment is valid. This includes multicollinearity and the normality test. Normality was tested using degree of skewness and kurtosis. While

multicollinearity tests was conducted on the regression model so that incorrect conclusions about the relationship between dependent variable and predictor variables are to be avoided. Variance Inflation Factor (VIF) and tolerance degree were used to indicate presence of multicollinearity test. The Variance inflation factor (VIF) was checked in all the analysis and it should be below a VIF 10 as greater than causes is a cause of concern.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND DISCUSSION

4.1 Introduction

This chapter represents the data analysis, findings, interpretation and the discussion regarding the study which aimed at establishing the effect of foreign exchange currency rates on the financial performance of the Banking Sector in Kenya. The study utilized the secondary data which was obtained from Kenya National Bureau of statistics, the bank's published annual reports as well as CBK's banking supervision reports. The data has been interpreted using inferential and descriptive statistics.

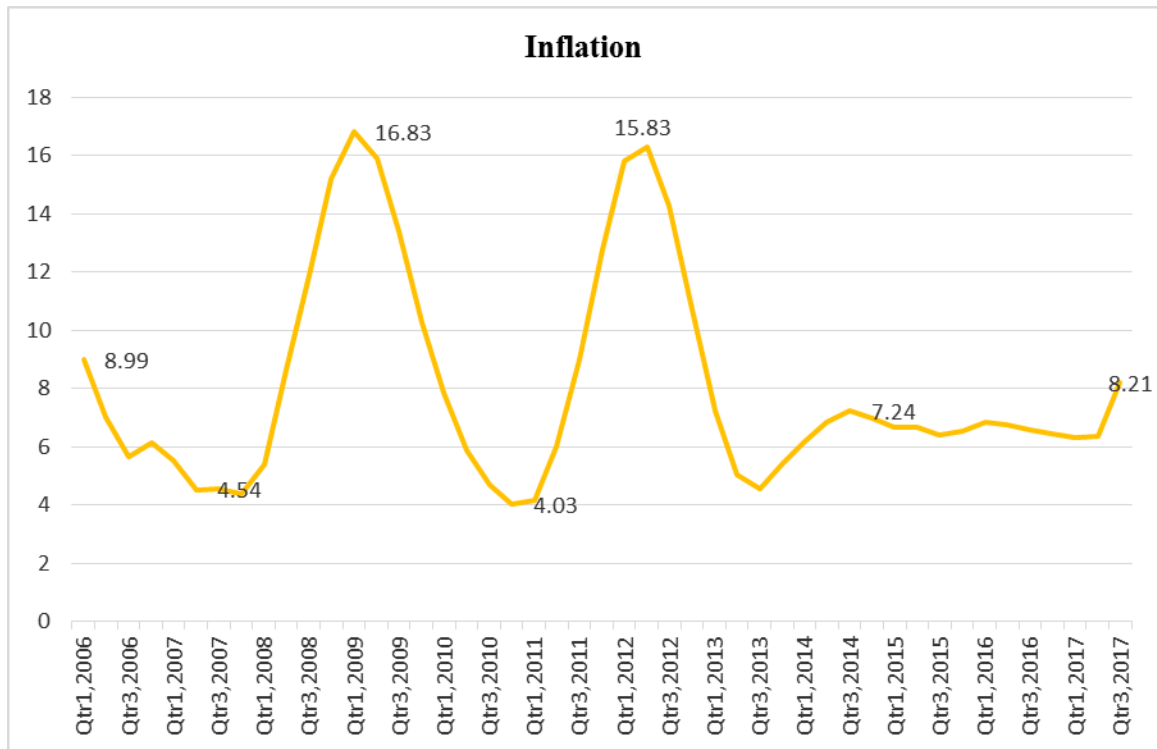
4.2 Description of study variables

This section sought at determining how the study variables have been changing over the study period. The study variables included inflation, interest rates, exchange rate and the sizes of the banks.

4.2.1 Inflation

The study sought to determine the inflation trend over the study period. The findings are as per Figure 4.1.

Figure 4. 1 Inflation



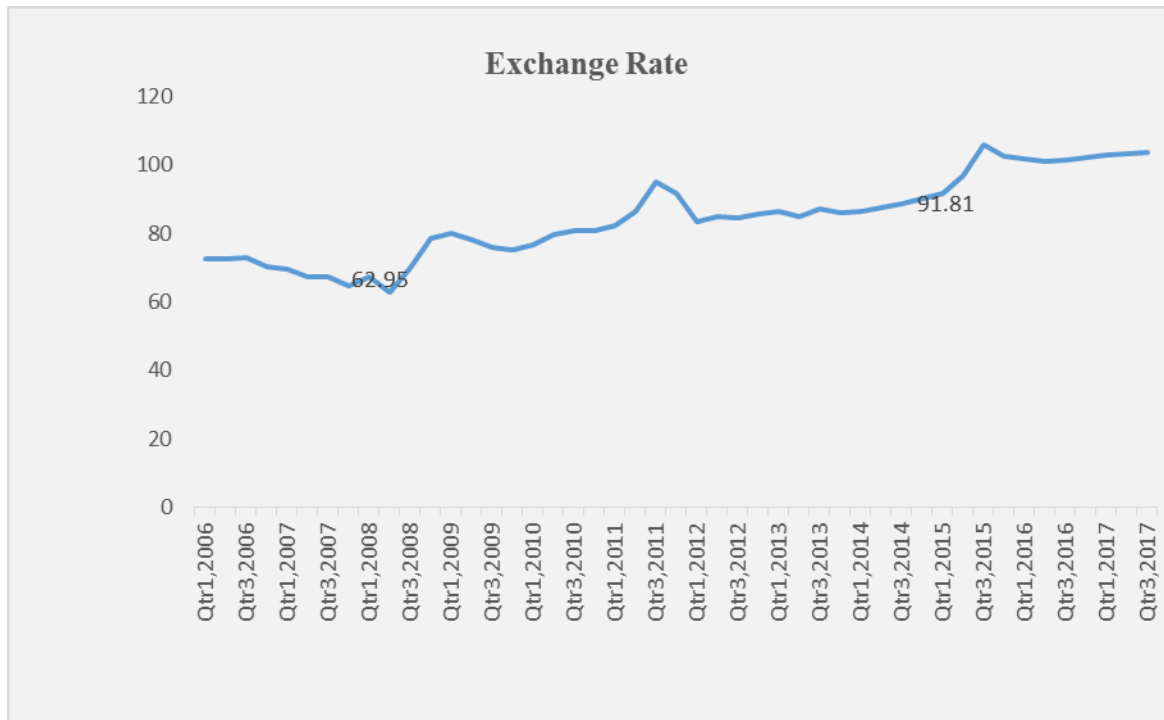
Source: Research Data, 2017

As shown, the Inflation rates in the country have not been stable in the country as evidenced by the constant fluctuation between the high and low periods. Particularly, the inflation rates rose from a low of 4.54 in the 1st quarter of 2008 to a high of 16.83 the following year. The rates later dropped to 4.03 in the 1st quarter of 2011 but later rose to 15.88 in the 2nd quarter of 2012. However, the inflation has been on a declining trend since 2014 to close at 8.21 in the 2nd quarter of 2017. The decline may be due to the regulatory bodies such as CBK putting stern measures to low and stabilize inflations such as revising the cash reserve policies.

4.2.2 Exchange Rate

The study sought to determine the exchange rate trend over the study period. The findings are as per Figure 4.2.

Figure 4. 2 Exchange Rate



Source: Research Data, 2017

As shown, the exchange rates in Kenya have maintained a fairly constant upward trend over the study period. The stability was attained mainly after the CBK tightened the liquidity in the market in 2012. The rates however, have been slowly increasing with the lowest Kenya shilling USD exchange rate of 62.95 being recorded in 2008. Since then, the shilling has continued to depreciate steadily to an exchange rate of 91.81 in 2015. It further depreciated to close at 103.45 in the 2nd quarter of 2017. The weakening of the Kenyan Shilling against the US Dollar may be due to the recent economic woes in the

country such as imbalance between imports and exports. If not well addressed, the KSh could depreciate to as high as attaining the 107 mark (CBK, 2017).

4.2.3 Interest Rates

The study sought to determine the interest rate trend over the study period. The findings are as per Figure 4.3.

Figure 4. 3 Exchange Rate Fluctuations



Source: Research Data, 2017

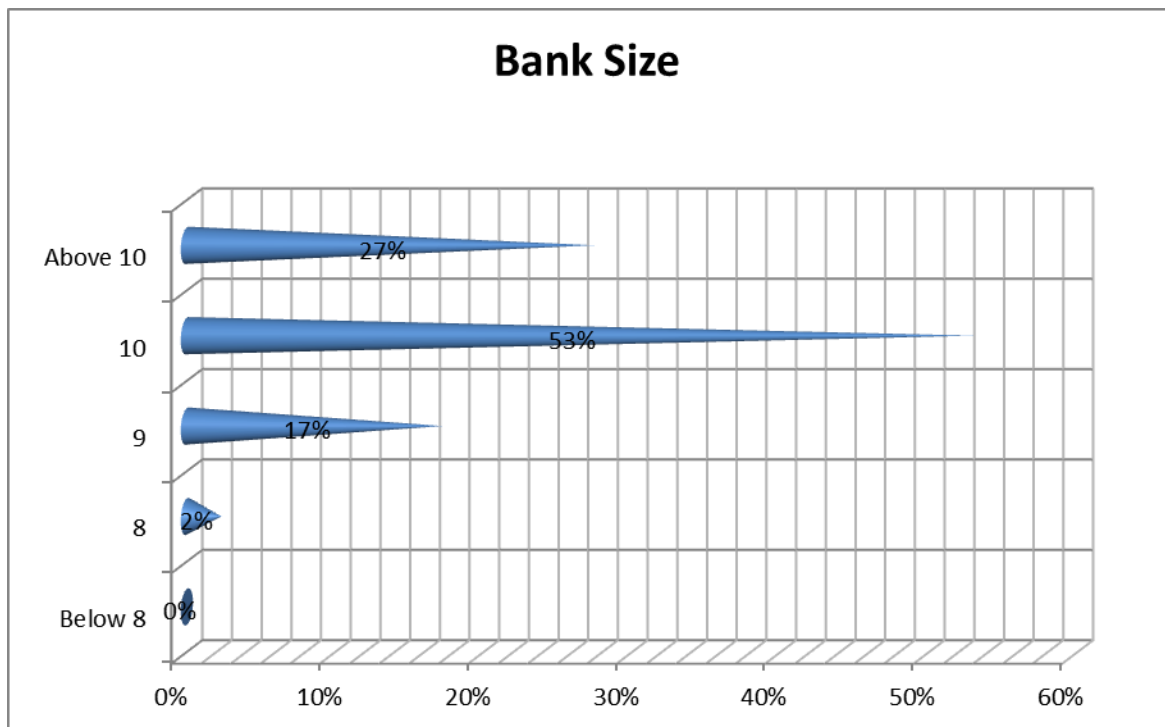
As shown by Figure 4.3, apart few ups and downs, the lending interest have been stable over the study period covered. The lowest interest rates documented was in 2009 at 14.77%, which later rose to the highest recorded of 18.32% in 2013. This was followed by a decline in the rates, and later a rise to 18.15% in 2016. However, since then the interest rates have been significantly low to close at 13.04% in 2017. The low lending

interest rates maintained are attributed largely to the Banking (Amendment) Act 2015 which was introduced in the 3rd quarter of 2016. This includes a cap on lending rates at 4.0% above the Central Bank Rate and a floor on the rate of deposits at 70% of the CBR (Cyttonn, 2017).

4.2.4 Bank Size

The study sought to establish the size of the commercial banks. This was obtained as the log of the assets and the findings obtained are as shown by Figure 4.4.

Figure 4. 4 Bank Size



Source: Research Data, 2017

As shown by Figure 4.4, the banks had varying sizes with 53% having a size of 10, 27% with above 10, 17% with 9, 2% with 8 and no company having below 8. This implies that

majority of the companies were relatively large in terms of the assets owned (over 70%). Though this increases the revenue earned from the sector, it tends to intensify the competition in the industry.

4.3 Descriptive Analysis

The descriptive analysis obtained from the study variables over the study period are shown by Table 4.1. Exchange Rate had a minimum of 84.77%, maximum of 105.27%, standard deviation of 7.61, and a mean of 61.466. Inflation had a minimum of 8.22% ,maximum of 16.83%, standard deviation of 3.82 and a mean of 4.03. Interest Rates had a minimum of 15.6%, maximum of 20.21%, standard deviation of 2.02 and a mean of 13.07. Size had a minimum of 10.4476%, maximum of 11.8932%, standard deviation of 1.825 and a mean of 8.9035.

Table 4. 1 Descriptive Statistics

Variable	N	Mean	Max.	Min	STD Dev.
Exchange Rate	43	61.466	105.27	84.77	7.61
Inflation	43	4.03	16.83	8.22	3.82
Interest Rates	43	13.07	20.21	15.6	2.02
Size	43	8.9035	11.8932	10.4476	1.825
Valid N (list wise)	43				

Source: Research Data, 2017

4.4 Diagnostic Tests

Diagnostic tests on the assumptions of regression analysis were done to ensure that the quality of quantitative assessment is valid. These include the normality test and multicollinearity test.

4.4.1 Test for Normality

The test for normality was undertaken so as to ensure that the study variables are normally distributed. This was through accessing the skewness and kurtosis of the variables whereby; Skewness is the extent to which a distribution of values deviates from symmetry around the mean and Kurtosis which is a measure of the "peakedness" or "flatness" of a distribution. The results obtained are shown by Table 4.2.

Table 4. 2 Test for Normality

	N	Skewness	Kurtosis
Exchange Rate	43	0.882	0.822
Inflation	43	0.646	1.389
Interest Rates	43	0.235	0.984
Size	43	0.69	-1.002
Valid N (listwise)	43		

Source: Research Data, 2017

The findings as shown by Table 4.2 reveal that Exchange Rate had a Skewness of 0.882 and a Kurtosis of 0.822, Inflation had a Skewness of 0.646 and a Kurtosis of 1.389, Interest Rates had a Skewness of 0.235 and a Kurtosis of 0.984 while Size had a Skewness of 0.69 and a Kurtosis of -1.002. Hence all the dependent and predictor

variables were well distributed as their Skewness values were falling between +/-1 to +/-1 and their kurtosis values were around to 0, +2 or -2.

4.4.2 Test for Multicollinearity

Multicollinearity tests were conducted so as to avoid including any conclusions which were incorrect about how the dependent variables and the predictor variables are related. Multicollinearity occurs where the independent variables are strongly correlated and hence results of regression analysis are as a result of the correlation on independent variables. The presence was indicated by the use of Variance Inflation Factor (VIF) and tolerance degree and the findings obtained are presented by Table 4.3.

Table 4. 3 Test for Multicollinearity

Variable	N	Tolerance	VIF
Exchange Rate	43	0.779	1.154
Inflation	43	0.602	1.404
Interest Rates	43	0.411	1.515
Size	43	0.396	1.222
Valid N (listwise)	43		

Source: Research Data, 2017

The findings as shown by Table 4.3 show that, Exchange Rate had a Tolerance value of 0.779 and a VIF value of 1.154, Inflation had a Tolerance value of 0.602 and a VIF value of 1.404, Interest Rates had a Tolerance value of 0.411 and a VIF value of 1.515 while Size had a Tolerance value of 0.396 and a VIF value of 1.222. This shows that there was

no multicollinearity problem as all the study variables had tolerance of greater than 0.1 and VIF less than 10.

4.5 Inferential analysis

The study sought to establish the underlying relationships between variables and the extent to which the independent variables influenced the dependent variables. The dependent variables included Exchange Rates, Inflation, Interest Rates and Size while the independent variable was the banks' financial performance. Correlation analysis and multiple regression analysis were used to accomplish this purpose.

4.5.1 Correlation Analysis

Correlation analysis is used to find the relationship between two or more sets of variables. It also tells the direction as well as how much relationship exist between these variables. In this study, Karl Pearson's coefficient of correlation was employed in establishing the relationship that existed between the study variables. The results of the correlation analysis are presented by Table 4.4.

Table 4. 4 Correlation Analysis

		ROA	Exchange Rate	Inflatio n	Interest Rates	Size
Exchange Rate	Pearson Correlation	.840**	1			
	Sig. (2-tailed)	0	0.001			
Inflation	Pearson Correlation	-0.655**	-0.454	1		
	Sig. (2-tailed)	0	0			

Interest Rates	Pearson					
	Correlation	.750**	0.156	.635**		1
	Sig. (2-tailed)	0.045	0.323	0	0.016	
Size	Pearson					
	Correlation	0.6119	0.3588	0.2817	0.1177	1
	Sig. (2-tailed)	2.1144	6.2574	2.7657	0.085	0
	N	43	43	43	43	43

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

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

Source: Research Data, 2017

As presented by Table 4.2, Exchange Rate had a Pearson Correlation of 0.840 and p-value of 0, Inflation had a Pearson Correlation of -0.655 and p-value of 0, Interest Rates had a Pearson Correlation of 0.750 and p-value of 0.045 and Size had a Pearson Correlation of 0.6119 and p-value of 2.1144. This implies that exchange rate, size, and interest rates all have a positive effect on the commercial banks' financial performance inflation has a negative effect. Therefore, an increase in exchange rate, size, and interest rates will result in increased commercial banks' financial performance whereas an increase in inflation will cause reduced performance.

This however contradicts Manyo et al (2016) who conducted a study on the effect of foreign exchange transaction on the profitability of Nigerian banks for the period of 2010 to 2014. The result revealed that foreign exchange income has a negative and insignificant effect on the profitability of Nigerian banks for the period. While, Farah, (2014) conducted a study on oil marketing companies established that there exists no significant relationship between the two variables. All the variables except size had significant at the 5% confidence level due to their p-values being less than 0.05. This

means that size cannot be solely used in predicting the returns in the banks at a particular time.

4.5.2 Regression Analysis

So as to determine the relationship between foreign exchange currency rates on the financial performance of the Banking Sector in Kenya, regression analysis was employed. This entails what proportion of variance between variables is due to the dependent variable, and what proportion is due to the independent variables. The results of the model as shown by Table 4.5 show that there existed a coefficient of correlation of 0.746 and coefficient of determination of 0.61. This indicates that 61% of the variations in the performance of the commercial banks may be explained by the dependent variables of the study namely Exchange Rates, Inflation, Interest Rates and Size ($R^2=0.61$). Hence implying a strong relationship among the study variables as only 39% of the variations in the performance is accounted for by factors other than the ones present in the model.

Table 4. 5 Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.746a	0.61	0.58	1.17015

a. Predictors: (Constant), Exchange Rates , Inflation, Interest Rates, Size

Source: Research Data, 2017

The analysis of variance was conducted to determine the reliability of the model in describing the relationship that exists. As shown in the Table 4.6, the Model $F_{(4, 37)} = 109.135$, $P < .001$ developed is significant at 95% and 99% confidence level since the p-

value of 0.000 is less than 0.5 and 0.1. This means that the effect of independent variables on the model has significant effect on the dependent variables.

Table 4. 6 Model Analysis of Variance

	Sum of Squares	Df	Mean Square	F	Sig.
					.000
Regression	1.408	4	0.322	109.135	a
Residual	0.058	37	0.002		
Total	1.466	42			

a. Predictors: (Constant), Exchange Rates, Inflation, Interest Rates, Size

b. Dependent Variable: Return on Assets

The model coefficients obtained by the study are shown in Table 4.7. Exchange Rates had a coefficient of 0.489, Inflation had a coefficient of -0.124, Interest Rates had a coefficient of 0.023 and Size had a coefficient of 1.9573. This implies that Exchange Rates, Interest Rates, and Size have a positive effect on the banks' financial performance whereas inflation had a negative effect. All the models except size had a pvalue less 0.5 showing that they were significant in accounting for the changes in the performance at the 95% confidence level. The predictive model thus adopted by the study entail; $Y=1.143+ 0.489X_1-0.124X_2+ 0.023X_3 + 1.9573X_4$ Where; Yis Financial Performance of banks measured by Return on Assets, X_1 is Foreign exchange Rate (Kenya Shillings changes against the United States Dollar), X_2 is Inflation (Consumer Price Index), X_3 is Interest Rates (Banks' Lending Interest Rates) and X_4 is Size of the Bank (Natural log of Total Assets).

Table 4. 7 Model Coefficients

	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	T	
(Constant)	1.143	1.593		0.449	0.607
Exchange Rates	0.489	0.068	0.721	8.231	0
Inflation	-0.124	0.112	-0.997	-1.035	0.321
Interest Rates	0.023	0.016	0.143	2.335	0.036
Size	1.9573	0.1858	0.078	10.6636	3.6494

a. Dependent Variable: ROA

Source: Research Data, 2017

4.6 Discussion of findings

The aim of study was to determine what effect do exchange rates have on the financial performance of the banking industry in Kenya. To accomplish this, Pearson correlation was used. The results obtained showed that Exchange Rate had a Pearson Correlation of 0.840 and p-value of 0. This means that the Exchange Rates do not only have a positive effect on the performance, it is also significant at the 95% confidence level. This positive relationship was further confirmed by the model coefficient obtained of 0.489. The positive relationship that exchange rates have is supported by the available theories.

Purchasing Power Parity theory and the Flow Oriented Model holds that the exchange rates changes affect real income and output in a country (Ahmed, 2015). Thus results in

increased in cash inflow to the banks and overall improved performance. Empirically, studies have also confirmed the significant influence foreign exchange rates have on the financial performance. Majok (2015) investigated exchange rate fluctuations in commercial banks in Kenya. The study found that there was a positive relationship between foreign exchange rate fluctuations and the financial performance of banks as measured by the returns on assets ratio. This concurs with Otuori, (2013) who conducted a study on the determinant factors of exchange rates and their effects on the performance of commercial banks in Kenya.

The study also sought to establish the effect that other macro-economic variables have on the financial performance of the banks. Specifically, the study investigated the effects of inflation and interest rates on performance. Based on the correlation analysis, Inflation had a Pearson Correlation of -0.655 and p-value of 0. This implies that it has a negative but significant effect on the financial performance of the commercial banks. The negative impact is explained in that, when inflation occurs it affects almost all the sectors in the economy ranging from international business to the common citizens. The high prices make its unfavourable to undertake in numerous transactions as before. Hence, the savings and deposits made to the bank will significantly reduce (Ani et al., 2013).

Interest Rates on the other hand had a Pearson Correlation of 0.750 and p-value of 0.045. This shows it had a positive and significant effect on the banks' returns. This is largely because the interest high rates ensure the banks remain profitable. They vary their lending rates and deposits from time to time but retain an interest rate that earns profit. The interest rates are directly proportional to the demand in that increase in demand will tend to increase the value of the currency. The commercial banks set interest rates to ensure a

margin to cover their costs, remain competitive, profitable and ensure fair return on assets employed (Otuori, 2013). Therefore, high interest rates would mean high returns for the commercial banks.

The study also sought to ascertain whether the size of the banks played a role on how they performed. The results of the correlation analysis showed that Size had a Pearson Correlation of 0.6119 and p-value of 2.1144. This shows that it has a positive impact whereby an increase in size will cause increased returns. The effect was however not significant at the 95% confidence level showing it cannot be solely used in predicting the performance. This is in line with Ahmed, Ahmed & Ahmed, (2010) who state that large banks may exploit economies of scale and this enables them acquire more client and undertaking in more transactions which translate to more returns. Additionally, the large banks tend to be more trusted by the customers and this implies more clients will opt to invest in them as opposed to the smaller ones.

On the combined effect of the independent variables on the dependent variables, a significant positive relationship was obtained. The results of the model established that there existed a coefficient of correlation of 0.746 and coefficient of determination of 0.61. This indicates that 61% of the variations in the performance of the commercial banks may be explained by the dependent variables of the study namely Exchange Rates, Inflation, Interest Rates and Size. The model was significant at 95% and 99% confidence level since the p-value of 0.000 is less than 0.5 and 0.1 thus confirming the relationship that exists.

On the model coefficients, Exchange Rates had a coefficient of 0.489, Inflation had a coefficient of -0.124, Interest Rates had a coefficient of 0.023 and Size had a coefficient

of 1.9573. This implies that Exchange Rates, Interest Rates, and Size have a positive effect on the banks' financial performance whereas inflation had a negative effect. This compares to studies conducted such as Bakare, (2011) who investigated the consequences of foreign exchange rate reforms on the performances of private domestic investment in Nigeria, and established a positive influence. Similarly, Joseph, (2002) conducted a study on modelling the impacts of interest rate and exchange rate changes on UK stock returns. The study found out a significant positive relationship between interest rates, exchange rates and stock market returns. However, Ahmed, (2015) conducted a study on the effect of foreign exchange exposure on commercial bank performance and established foreign exchange exposure has negative effect on the performance.

The predictive model thus adopted by the study entail; $Y=1.143+ 0.489X_1-0.124X_2+ 0.023X_3 + 1.9573X_4$ Where; Y is Financial Performance of banks measured by Return on Assets, X_1 is Foreign exchange Rate (Kenya Shillings changes against the United States Dollar), X_2 is Inflation (Consumer Price Index), X_3 is Interest Rates (Banks' Lending Interest Rates) and X_4 is Size of the Bank (Natural log of Total Assets).

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary discussion on the effect of foreign exchange currency rates on the financial performance of the Banking Sector in Kenya. A conclusion discussing the general findings of the research is highlighted followed by recommendation based on the findings of the study. The limitations of the study and suggestions on areas of further research are discussed at the end of the chapter.

5.2 Summary of findings

The study sought to determine the effect of foreign exchange currency rates on the financial performance of the Banking Sector in Kenya. The study employed the descriptive research design in collecting information with the target population being all the 43 commercial banks in Kenya. Secondary data which entailed data on the macroeconomic environment facing the commercial banks and their financial performance records was obtained from CBK and the bank's financial statements. The study used quantitative analysis techniques to obtain information on the study variables. The trend analysis and descriptive statistics revealed that the variables were not constant throughout the study period showing that the macroeconomic environment in Kenya was highly volatile.

The study sought to establish the relationship that exists between the dependent and independent variables. To achieve this, Pearson correlation was used. The findings obtained showed that Exchange Rate had a Pearson Correlation of 0.840 and p-value of 0, Inflation

had a Pearson Correlation of -0.655 and p-value of 0, Interest Rates had a Pearson Correlation of 0.750 and p-value of 0.045 and Size had a Pearson Correlation of 0.6119 and p-value of 2.1144. This implies that exchange rate, size, and interest rates all have a positive effect on the commercial banks' financial performance whereas inflation has a negative effect. Therefore, an increase in exchange rate, size, and interest rates will result in increased commercial banks' financial performance whereas an increase in inflation will cause reduced performance.

Multiple regression analysis was also used in describing the effect that exchange rates, inflation, interest rates and size have on the financial performance of the banks. The results of the model established that there existed a coefficient of correlation of 0.746 and coefficient of determination of 0.61. This indicates that 61% of the variations in the performance of the commercial banks may be explained by the dependent variables of the study namely Exchange Rates, Inflation, Interest Rates and Size. The model was significant at 95% and 99% confidence level since the p-value of 0.000 is less than 0.5 and 0.1 thus confirming the relationship that exists.

On the model coefficients obtained by the study, Exchange Rates had a coefficient of 0.489, Inflation had a coefficient of -0.124, Interest Rates had a coefficient of 0.023 and Size had a coefficient of 1.9573. This implies that Exchange Rates, Interest Rates, and Size have a positive effect on the banks' financial performance whereas inflation had a negative effect. All the models except size had a pvalue less 0.5 showing that they were significant in accounting for the changes in the performance at the 95% confidence level.

Yet, this contradicts Ani et al. (2013) who investigated the effect of foreign exchange reforms on financial deepening in Nigeria and found that foreign exchange reforms in Nigeria do not have the desired positive effect on the depth of the Nigerian financial sector. The predictive model thus adopted by the study entail; $Y=1.143+ 0.489X_1- 0.124X_2+ 0.023X_3 + 1.9573X_4$ Where; Y is Financial Performance of banks measured by Return on Assets, X_1 is Foreign exchange Rate (Kenya Shillings changes against the United States Dollar), X_2 is Inflation (Consumer Price Index), X_3 is Interest Rates (Banks' Lending Interest Rates) and X_4 is Size of the Bank (Natural log of Total Assets).

5.3 Conclusions

Based on the study findings, the study makes a number of conclusions. To begin with, the study established that the macroeconomic variables investigated by the study namely interest rates, exchange rates and inflations to have been constantly changing throughout the study period. As such, both high and low rates have been experienced in the years. The study thus concludes that there is no stability in the macro-economic environment in Kenya which may be caused by numerous factors, both political and social. This may result in the banks having different performance at different times and periods.

The study also established that exchange rates do have a significant and positive effect on the financial performance of the banking industry. The study thus concludes that increased exchange rates, will favour how the banking sector performs and grows. The positive impact may be explained by the fact that many imports are paid by the locals using the dollar and, with the shilling weakening against the dollar, the banks are making an arbitrage profit (Nyandema & Langat, 2016). Hence, the study concludes that the banking sector is hugely affected by activities in the foreign exchange market primarily.

The study also found out that, interest rates, inflations and the size of the banks also have an effect on performance of the banks. The study therefore concludes that interest rates and the bank size have a positive effect on the performance while inflations have negative effects. This implies that inflations are undesirable and when they occur in long periods, they will result in diminished returns and losses being experienced by these commercial banks. While high interest rates and increased Return on Assets would imply increase profitability in the firms which is conducive and desired.

On the overall relationship that exists between the dependent and independent variables that exist. The study found out that the independent variables namely; exchange rates, interest rates, inflation, and size have a strong positive relationship with the financial performance. Specifically, they were established to account to up to 61% of the variations in the performance. The study thus concludes that the performance of the banking industry is highly influenced by the current currency exchange rates in the country. However, the exchange rates are not constant due to a number of factors namely the trade terms and debt of the public (Otuori, 2013).

5.4 Recommendations to Policy and Practice

From the findings, several recommendations are made. To begin with, the study established the exchange rates in Kenya are constantly changing. This causes the fragility in the foreign currency reserves making it difficult for the banking industry to transact freely. The study thus recommends that government through its policy makers should come up with measures and policies that will help control and stabilize foreign exchange rate fluctuation thus creating investor confidence in the securities market.

To regulate the interest rate levels, the study recommends that central bank should put in place measures of monitoring interest rate spread related measures such as regulated saving deposit rate, operating efficiency, liquidity risk, provision for loans losses, market power and Gross domestic growth rate in order to boost financial performance of commercial banks in Kenya. While policies such as the monetary and fiscal policies should be constantly revised so as to reduce any rate of occurrence of periods of inflations in the country.

To the managements at the banks, the study further recommends that the issues related to foreign exchange trading should always be taken into account in efforts to improve banks' foreign exchange transactions and financial performance. This is because exchange rates have a huge potential in determining the returns in the banks. Additionally, the study recommends that the banks should come up with mechanisms that will enable them to be ready to respond to any changes in the macro-economic environment. Through this, any uncertainties created will be anticipated and easily addressed.

5.5 Limitations to Study

Several limitations were faced by the study which may have posed a challenge onto how the study was conducted. Firstly, the study was being done in a short period. Hence the time frame was not adequate enough in incorporating additional variables in the study and also for investigating the phenomenon for a longer duration. The researcher however did proper time planning to ensure comprehensive data collection. Also, the study utilized data collected purely through secondary data. As such the accuracy of the data may not be easily verified. Also, the data might have been primarily collected for other purposes

which limited its accuracy. Additionally, certain data was not also readily available such as quarterly inflation data for earlier years and some banks were yet to update all their financial statement records. Despite this, the researcher ensured consistency, validity and reliability on all the data collected.

5.6 Suggestions for Further Research

Though the study was able to accomplish its objective in determining the effect of exchange rates on the performance of the banking industry, there still remains areas which are demanding and require further research. To begin with, the study only concentrated on three main macro economic variables which included interest rates, exchange rates and inflation. Hence, to enable comprehensive determination of the entire phenomenon, additional variables such as GDP growth, market capitalization, interest rates spread should be investigated in future studies.

Additionally, the study focused purely on the banking industry. Further studies can be done on other sectors and not entirely the banking industry for instance firms in energy, manufacturing, agriculture, tourism and other sectors. This would provide a wide pool of research findings that can be compared across the business fraternity for optimal policy formulation. Also further studies should be done at a different time frame so as to determine whether there will be any changes. The study therefore opens up a wide range of areas in foreign exchange rates risks and risk management which can be studied.

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APPENDICES

Appendix I: List of commercial banks in Kenya

1. ABC Bank (Kenya)
2. Bank of Africa
3. Bank of Baroda
4. Bank of India
5. Barclays Bank
6. CFC Stanbic Bank
7. Chase Bank (Kenya)
8. Citibank
9. Commercial Bank of Africa
10. Consolidated Bank of Kenya
11. Cooperative Bank of Kenya
12. Credit Bank
13. Development Bank of Kenya
14. Diamond Trust Bank
15. Dubai Bank Kenya
16. Ecobank
17. Equatorial Commercial Bank
18. Equity Bank
19. Family Bank
20. Fidelity Commercial Bank Limited
21. Fina Bank
22. First Community Bank
23. Giro Commercial Bank
24. Guardian Bank
25. Gulf African Bank
26. Habib Bank
27. Habib Bank AG Zurich

28. I&M Bank
29. Imperial Bank Kenya
30. Jamii Bora Bank
31. Kenya Commercial Bank
32. K-Rep Bank
33. Middle East Bank Kenya
34. National Bank of Kenya
35. NIC Bank
36. Oriental Commercial Bank
37. Paramount Universal Bank
38. Prime Bank (Kenya)
39. Standard Chartered Kenya
40. Trans National Bank Kenya
41. Victoria Commercial Bank
42. HDFC Bank Limited
43. FirstRand Bank

Source: CBK (2017)