EFFECT OF MACRO-ECONOMIC VARIABLES ON FINANCIAL PERFORMANCE OF ISLAMIC BANKS: A CASE STUDY OF FIRST COMMUNITY BANK

BY

MOHAMED ZAMZAM NOOR

UNITED STATES INTERNATIONAL UNIVERSITY-AFRICA

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A Project Report Submitted to the Chandaria School of Business in Partial Fulfillment of the Requirement for the Degree of Masters of Business Administration

UNITED STATES INTERNATIONAL UNIVERSITY-AFRICA

SPRING 2018
DECLARATION
I, the undersigned, declare that this project is my original work and has not been submitted to any other college, institution or university other than the United State International University in Nairobi for academic credit.

Signed: ____________________________ Date: ________________________________
Mohamed Zamzam Noor (Student ID: 635564)

This project has been presented for examination with my approval as the appointed supervisor.

Signed: ____________________________ Date: ________________________________
Mr. Kepha Oyaro,

Sign: ________________________________ Date: ________________________________
Dean, Chandaria School of Business
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ACKNOWLEDGEMENT

I would like to acknowledge Mr. Oyaro for the guidance, positive criticism and wise counsel during the development of this thesis. I would also like to acknowledge my friends and family for their support. I would also wish to acknowledge the United States International University-Africa for the support accorded to me throughout this study.
DEDICATION

I dedicate this project to the management of First Community Bank, Nairobi.
ABSTRACT

The study aimed to investigate the effect of macroeconomic variables on the financial performance of Islamic banks within Kenya. The study was tailored to the following research objectives: To investigate the effect of lending rates on financial performance at First Community Bank. To investigate the effect of economic growth rates on financial performance at First Community Bank. To investigate the effect of exchange rates on financial performance at First Community Bank. To investigate the effect of money supply on financial performance at First Community Bank.

The research adopted descriptive form of research design to assess the effect of macroeconomic variables on the financial performance of Islamic banks within Kenya. The study primarily utilized secondary data on macroeconomic variables which was obtained from published periodic performance statements from the Central Bank of Kenya. The secondary data on financial performance was availed in form of profitability calculated as Return on Assets (ROA). The study was based on 5 year period commencing January 2013 to January 2017. Collected data was thereafter analyzed by use of descriptive and inferential statistics. Frequencies and percentages formed descriptive statistics whereas inferential statistics entailed Pearson Correlation and Linear Regression which was analyzed through the Statistical Package for Social Sciences (SPSS Version 22.0).

The first study objective revealed a linear relationship between interest rates and financial performance with increase in interest rates leading to higher profitability among Islamic banks. However, with the interest cap law taking effect, most banks witnessed a reversed trend in profitability, so Islamic banks. The second study objective established a significant relationship between the effect of economic growth and financial performance of Islamic banks. The third study objective noted that there was a negative relationship between foreign exchange rate fluctuations and the financial performance of Islamic banks as measured by the returns on assets ratio. Lastly, the study established that the ROA and money supply as measured by broad money (M3) are positively correlated. As a result, when CBK increases money supply, households get more money at their disposal and are therefore looking for investment opportunities.
The study concluded that high interest rate boosts financial performance of Islamic banking institutions. Furthermore, the study concludes that favorable economic growth seems to stimulate higher profits for banking firms. And a relatively stable and strong local currency to US dollar conversion is conducive for financial performance in the Islamic banking sector. Ultimately, when CBK increases money supply, households get more money at their disposal and are therefore looking for investment opportunities which apparently favor thriving of Islamic banks.

The study recommends that Islamic banks should judiciously manage their interest rate to improve their financial performance since it has a positive effect on their financial performance and also recommends for income source diversification to cushion market shock such as the interest rate ceiling. The study adds that there is need for the Central Bank of Kenya to adequately put measures to safeguard the value of the domestic currency. Lastly, the Central Bank of Kenya should formulate and implement policies aimed at controlling the effects of rapid fluctuations of the macro economic factors and their effects on the sector.

An area of to be covered in future studies would be an extension to include the whole of banking sector and not just Islamic banks. Moreover, conducting a study in other financial subsectors such as MFIs, Saccos, and DTMs would be appropriate specifically in deriving comparison reasons. Alternatively, future researchers could replicate the study but consider other methods of analysis such as GARCH model, ARCH model, VAR model, Cointegration analysis among other models and try to establish if the results would be different.
# ABBREVIATIONS AND ACRONYMS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tr>
<td>BBA</td>
<td>Bai Bithamin Ajil</td>
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<tr>
<td>CBK</td>
<td>Central Bank of Kenya</td>
</tr>
<tr>
<td>CPI</td>
<td>Consumer Price Index</td>
</tr>
<tr>
<td>FCB</td>
<td>First Community Bank</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GoK</td>
<td>Government of Kenya</td>
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<tr>
<td>OMO</td>
<td>Open Market Operations</td>
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<tr>
<td>ROA</td>
<td>Return on Investment</td>
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<td>ROE</td>
<td>Return on Equity</td>
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<td>SME</td>
<td>Small and Medium Enterprises</td>
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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

Macroeconomics is a branch of economics dealing with the performance, structure, behaviour and decision-making of an economy as a whole, rather than individual markets. This includes national, regional and global economies. Macroeconomics studies aggregate indicators such as: Gross Domestic Production (GDP), unemployment rates and sometimes indices to understand how the whole economy functions (Akers, 2014). They develop models that explain the relationship between such factors as national income, output, consumption, unemployment, inflation, savings, investment, international trade, international finance and others.

While macroeconomics is a broad field of study, there are two areas of research that are emblematic of the discipline: the attempt to understand the causes and consequences of short run fluctuations in national income (the business cycle), and the attempt to understand the determinants of long-run economic growth (increase in national income). These models and their forecasts are used by governments to assist in the development and evaluation of economic policy. For the purpose of this study, the researcher analysed the relationship between the following Macroeconomic variables; interest rate, economic growth, currency exchange rate fluctuations, and money supply as banking specific variables and financial performance of banking companies in Kenya.

Curak, Pervan and Marijanovic (2011) define interest rate as the price a borrower pays for the use of money they borrow from a lender or fee paid on borrowed assets. Gikungu (2012), on the other hand, describes interest rate as a price of money that reveals market information regarding expected change in the purchasing power of money or future inflation. Economists argue that the interest rate is the price of capital allocation over time; monetarist use the interest rate as an important tool to attract more saving, as increases in the interest rates attract more savings and the decrease in interest rate will encourage investors to look for another investment that will generate more return accordingly. Banking firms themselves earn high interest income when interest rates are high and on the contrary high interest rates discourage premiums.

Inflation is a persistent and appreciable rise in the general level of prices. Akers (2014) states inflation rate measures changes in the average price level based on a price index. The most
commonly known index is the Consumer Price Index (CPI). The index measures average retail prices that consumers pay. A high or increasing CPI indicates existence of inflation. Higher prices tend to reduce overall consumer spending which in turn leads to a decrease in GDP while inflation itself is not negative, rapidly increasing rates of inflation signal the possibility of poor macroeconomic health (Curak, Pervan, & Marijanovic, 2011).

Exchange rate is, according to Harvey (2012), the value of two currencies relative to each other. It is the price of one currency expressed in terms of another currency. It is the price at which the currency of one country can be converted to the currency of another. Although some exchange rates are fixed by agreement, most fluctuate or float from day to day. Understanding the impact of foreign exchange risk is a critical element for purposes of firm valuation and risk management (Haruna, Yazidu, & Domanban, 2013).

Money supply is broad money supply in an economy; it is the entire stock of currency and other liquid instruments in a country's economy as of a particular time (Haruna et al., 2013). Gross Domestic Product is the market value of all finished goods and services produced in a country within a specified period, mostly one year. It is a gauge of economic recession and recovery and an economy's general monetary ability to address externalities. Mwangi (2013) states that (GDP) is a most commonly used macroeconomic indicator to measure total economic activity within an economy, its growth rate reflects the state of the economic cycle. No country can experience meaningful development without the presence of formidable banking industry, thereby making banking business in any nation indispensable irrespective of its quota to the gross domestic product (GDP) or its level of awareness among the populace.

The level of interest rates charged by banks in Kenya and other financial institutions in has remained high and has faced a lot of criticism from time to time. Despite the efforts by the Government to bring it down they have still remained high. These high interest rates are against the regulation in the current finance bill which proposes that interest rates should be pegged against the Treasury bill /maximum interest rate that a bank or any financial institution may charge for a loan or monetary advance (Ngugi, 2014). The impact of interest rate on bank’s profits operates via two main channels of the revenues side. First, a rise in interest rate scales up the amount of income a bank earns on new assets it acquires. Second, the effect hinges on the amount of loans and securities held (Were & Wambua, 2014).
Islamic banking has grown rapidly and gained universal acceptance. Nowadays, Islamic banks are existed in all parts of the world, and are looked upon as a viable alternative system, which have many things to offer (Sufian & Noor, 2009). As for Islamic banking activity over the world, Sole (2007) reports that Islamic banking has experienced growth rates of 10-15 percent per annum over the last decade, and has been moving into an increasing number in the conventional financial systems. Contrary to the Arabic world (Middle East), Northern Africa, and part of Asia, Islamic banking is a new concept in most parts of Sub Sahara Africa. As for the Islamic banking in Kenya, a country under this study, Islamic banking activity started in 2005 when the First Community Bank for Finance and Investment was established. Later on, the Gulf Africa Bank, GAB has initiated its business in 2007.

The First Community Bank is approved and regulated by the Central Bank of Kenya (CBK) to operate as a full-fledged Sharia Compliant Banking Institution. The bank has expanded to 18 branches spread across the country this benefits the clients from this aggressive branch expansion program were an overwhelming value in terms of service delivery and overall networking perspectives. It is owned by Kenyan and Tanzanian professionals and community businessmen. As a committed Kenyan bank, FCB’s motive is to take its alternative form of banking to as many places as possible within the country. Regionally, they have put into place midterm plans to establish operations in other East African financial centres where they believe there is sufficient demand for Sharia Compliant financial services.

As a Pioneer of Sharia Compliant banking institution, with addition to its core banking business, it is also in the final stages of bringing to Kenya a number of other innovative Sharia Compliant products. These include; Islamic Insurance (Takaful), Islamic Bonds (Sukuk) and Sharia Compliant Mutual Funds and Shares trading. All their products and services are offered on fully Sharia Compliant basis as approved by the Sharia Advisory Board which comprises of prominent Islamic scholars both from inside and outside Kenya.

1.2 Statement of the Problem

Islamic banking is a relatively new concept in Kenya; hence limited research has been conducted in the Kenyan market. In addition; researchers have not yet fully covered the factors affecting financial performance of Islamic banks in Kenya. As a result, there is a great need to understand
the two fully fledged Islamic Shariah banks (Gulf Africa Bank and First Community Bank) are affecting the growth of SME business in Nairobi-Kenya; focussing on the latter. With current stiff competition from conventional banks offering same Islamic sharia products through Islamic windows, it’s important to understand how the key macroeconomic variables have impacted the financial statements of such Islamic banks.

Khrawish and Siam (2011) investigated the determinants on samples of three Jordan Islamic banks profitability from 2005 and 2009. The multiple linear regression results show capital, bank size, financial risk, GDP growth rate, inflation, and exchange rate had impacted bank financial performance on varying scale. At continental level, Ekpung, Udude and Uwalaka (2015) examined the impact of monetary policy on the banking sector in Nigeria. The study tried to ascertain the factors that influence the banking sector performance using bank’s deposit liabilities as proxy for bank performance. They tested the null hypothesis of no significant relationship between bank deposit liabilities and chosen indices of banking performance, namely Exchange Rate (EXR), Deposit Rate (DR) and Minimum Discount Rate (MDR Results showed that overall; monetary policy had a significant effect on the banks deposit liabilities. meanwhile, on individual basis, they discovered that Deposit Rate (DR) and Minimum Discount Rate (MDR) had a negative influence on the banks deposit liabilities, whereas Exchange Rate (EXR) had a positive and significant influence on the banks deposit liabilities in Nigeria. Their conclusion therefore was that monetary policy plays a vital role in determining the volume of bank’s deposit liabilities in Nigeria.

Locally, Yusuf (2017) investigated the effect of Islamic banking on growth of small medium enterprises in Nairobi: with reference to First Community Bank, FCB. The researcher made two main findings: the management team was able to improve the financial profitability and that Islamic banking has led to growth of my SME financially and that the Islamic banks had aided equitable access to financing by SMEs through provision of a diversified product portfolio.

These studies investigated aspects of Islamic banking from different markets and different contexts which therefore limit their application in the current study. This therefore leaves a research gap that this study seeks to fill by examining the effects of macroeconomic factors on the financial performance of Islamic banks.
1.3 General Objective of the Study
The main objective of this study was to investigate the effect of macro-economic variables on financial performance of Islamic Banks, a case of First Community Bank.

1.4 Specific Objectives
1.4.1 To investigate the effect of interest rate changes on financial performance in Kenyan Islamic banks.

1.4.2 To investigate the effect of economic growth rates on financial performance in Kenyan Islamic banks.

1.4.3 To investigate the effect of exchange rates on financial performance in Kenyan Islamic banks.

1.4.4 To investigate the effect of money supply on financial performance in Kenyan Islamic banks.

1.5 Significance of the Study
The study would be important to a number of stakeholders including bank managers, banking industry regulators, bank managers and researchers as well as academicians.

1.5.1 Bank Management
Bank managers will be placed in understanding the effect of macroeconomic variables on the financial performance of Islamic banking institutions given that a large proportion of bank performance is influenced by macroeconomic variables such as money supply, interest rates, inflation, and unemployment among others.

1.5.2 Researchers and Academicians
To academicians and researchers, the findings would contribute new knowledge in the area of the role of macro-economic variables on the banking industry. The study would also act as a source of reference for future scholars besides suggesting areas for further research.

1.5.3 Banking Industry
The Banking industry in the African region would benefit from this study because it explores the role of macroeconomic variables on the banking industry in Kenya. Through the findings
of this study, the banking industry may find this a benchmark study to guide their customer loyalty programmes.

1.5.4 Government
The study aims at shedding light on how Islamic banks firms are influenced by various macroeconomic factors which will aids practitioners in making concrete policies to guide the industry and promote good corporate governance.

1.6 Scope of Study
The study’s scope focused on the macroeconomic variables that impact financial performance of First Community Bank. The variables comprised; interest rate, economic growth, exchange rate, and money supply. The research was conducted between the months of March and April 2018.

1.7 Definitions of Terms
1.7.1 Performance
Achievement of a bank by fulfilling and completing tasks in relation to the targets and expectations (Almajali, Alamro, & Al-Soub, 2012).

1.7.2 Economic Growth
The process of increasing the sizes of national economies, the macro-economic indications, especially the GDP per capita, in an ascendant but not necessarily linear direction, with positive effects on the economic-social sector (Haller, 2012).

1.7.3 Lending Rates
The rate of interest charged by commercial banks for lending money.

1.7.4 Exchange Rates
Exchange rates define the rate or ratio of which one of these currencies can be exchanged for any other at any given point in time (ISO, 2014).

1.7.5 Islamic Banking
Islamic banking is the selling of insurance and banking products through the same channel, most commonly through bank kindling selling insurance (Kumar & Gulati, 2009).
1.7.6 Sharia’a Law
At times referred to Islamic Jurisprudence, is the instigating foundation of Islamic Banking (Kettel, 2011).

1.7.7 Muamalat
Is the conduct of economic activities which constitute banking and financial services that form the founding principles of Islamic Banking (Kettel, 2011).

1.7.8 Riba
Geelani, (2010) assets that Riba refers to any predetermined payment above the actual amount of the loan principal; this is contrary to conventional banks that charge fixed interest rates on both deposits and loans.

1.7.9 Murahaba
A contract whereby the Islamic bank sells a specific asset to a customer at a pre-agreed profit mark-up on the original cost (Al-Tiby, 2011).

1.8 Chapter Summary
This chapter has expounded on the background of macro-economics in relation to performance of banks. It has provided the purpose of the study and the problem statement. The three specific objectives are stated. They include; the effect of interest rates, economic growth, and inflation on the performance at the First Community Bank in Nairobi Kenya. It also relayed the significance of the study as well as the scope. The second chapter capitalizes on the literature review on the effect of macroeconomic variables and financial performance.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction
This chapter summarizes the information from other researchers who have carried out their research in the same field of study. This chapter is divided into four sections based on the research objectives; interest rates, economic growth, money supply, and inflation as discussed below.

2.2 Effect of Interest Rate on Financial Performance of Islamic Banks

2.2.1 Interest Rate Capping
Aligonby (2017) posits that when President Uhuru Kenyatta assented the bill into law of capping interest rates at 400 basis points above the CBR rate which currently stands at 10%, most stakeholders focused on the effects this would have on the end consumer of bank products that is the customers. However little attention was paid on how this new law would affect the share prices and the overall performance of banking institutions going forward. There was no regard for how this new law would affect banks looking to raise money through sale of equity.

The recent global surge in sukuk issuance from oil producing countries has been well-received by the market. The drop in the price of oil, which began in June 2014, has forced many of these countries to cut back their spending and look for creative solutions to finance their budget deficits (QUORUM, 2017). Sukuk have been one of these solutions. Now that the price of oil has stabilizing over the past year, it still remains over 50% below the highs of 2014. Nevertheless, oil producing countries are still keen on tapping capital markets on both the conventional and Islamic fronts to finance their deficits.

According to QUORUM (2017), Sovereign issuance, regardless whether conventional or Islamic, has been good for the sukuk market. Saudi Arabia issued a $17.5 billion bond in 2016 and is looking to repeat it again soon. Kuwait issued its first sovereign bond in recent memory last month that was 8 times oversubscribed. These sovereign issuances are good for the overall sukuk market because they set the benchmark rates for the rest of the market and test international investor demand for such instruments. Islamic banks have been at the forefront of sukuk issuance in recent years, but this is expected to change as both governments and corporates look to tap the Islamic market. What has happened since LIBOR began rising in
2015 is a rush by both governments and corporates to issue sukuk at fixed rates to lock in lower rates as rates rise. As a result, rising rates was good for sukuk issuance this year. On the flipside, rising rates also mean that governments and corporates needing to constantly tap capital markets for debt financing was squeezed and could face repayment challenges going forward. Rising rates mean rising debt payments at a time when revenues and tax receipts are flat or falling.

The attractiveness of bank stocks is affected by a myriad of factors that include financial reforms and interest rate sensitivity of the bank’s stock returns since they determine the profit margin of the bank. Streamlined operations, big earning beats, attractive share valuations, strength in housing and cyclical potential are some of the factors that determine the general attractiveness of bank stocks. According to Martins, Serra, and Martins (2016), the changes in the real estate value affects the default risk for banks and profitability because of being exposed to real estate sector. The changes in real estate market determine the attractiveness of banks that have invested heavily in the sector by providing mortgages. Financial reforms, bank capital structure, bank size, market events, corporate governance affects the performance of banks, which in turn influences the valuation of bank stocks.

According to Odhiambo (2010), the interest rate reforms have influenced positive economic growth in Tanzania. The study examined the influence of interest rate reforms on financial deepening. The outcome of the study shows that the researchers did not establish any finance led growth. The impact of financial reforms on the performance of banks and bank stock returns has been positive in Nigeria (Nkwoma, 2014).

As opposed to the conventional banks which derive their profits mainly from interest charged on borrowings, islamic banks derive their income from arrangements that include joint ventures (musharakah) as well as cost-plus (murahaba) and profit-sharing (mudharabah) undertakings. Though these financial institutions do not charge or receive interest, they exist in an economy characterized by market interest rates which quite often fluctuate. In their study on the impact of market interest rate fluctuations on the profitability of Islamic banks in Kenya, Wanjare and Motari (2016) concluded that there is a positive relationship between the market interest rate changes and profitability of Islamic banks in Kenya.
### 2.2.2 Lending Rates

Bank lending appears to be mainly driven by capital rather than liquidity. In contrast to changes in economic capital caused by realized interest rate risk exposure, we find no evidence that changes in excess liquidity significantly affect bank lending. This result may reflect that liquidity buffers were large and that most banks did not experience any strains on liquidity over the sample period.

Mehrling, Pozsar, Sweeney and Neilson (2013) investigated the role of shadow banking, central banking, and the future of global finance. The study revealed that changes in economic capital, as measured by realized interest rate risk exposure, affect bank lending. The estimated effects of a given shock in interest rates are initially small and not statistically significant but increase over the next four quarters, eventually becoming highly significant. For instance, in response to a permanent 1 pp increase in nominal interest rates, the average bank in 2013 Q3 would, ceteris paribus, reduce its predicted quarter-on-quarter loan growth rate by 46 basis points (bp) immediately after the shock and reduce its cumulative loan growth after one year by approximately 300 bp.

The impact of an interest rate shock on bank lending significantly depends on individual exposure to interest rate risk. The higher a bank’s exposure to interest rate risk, the higher the impact of an interest rate shock on its lending. For example, if the average bank’s interest rate risk exposure ceteris paribus corresponded to the 1st (9th) decile instead of the average, it would reduce its quarter-on-quarter loan growth by 37 (55) bp immediately after the shock and reduce its cumulative loan growth after one year by approximately 260 (340) bp. These estimated effects are also economically significant both in light of the recent increase in interest rate risk exposure and in comparison, to the average quarter-on-quarter loan growth rate, which was approximately 95 bp over the sample, corresponding to an annualized growth rate of approximately 385 bp.

Sutorova and Teplý (2013) investigated the impact of Basel III on lending rates of EU banks. It explored how the Bank Lending Channel (BLC) describes a bank’s liquidity levels determine how its loan schedule will withstand changes to the banking system’s available reserves once interest rates change. The BLC relies on the market imperfection that insured deposits carry
artificially low interest rates compared to other sources of short-term funding that are not
covered by deposit insurance. Thus, if a bank has to replace an outflow of insured deposits by
other sources of uninsured short-term funding, its funding costs increase and therefore, the
bank reduces its loan supply. Kashyap and Stein (1995) provide empirical evidence for the
BLC. In particular, they find that changes in monetary policy matter more for lending by small,
less liquid banks.

Degryse, Havrylchyk, Jurzyk and Kozak (2012) conducted a study on foreign bank entry,
credit allocation and lending rates in emerging markets. It noted that many banks in the euro
area have been burdened by weak profitability for a long time. This has a negative effect on
their capital situation and limits their scope for supplying the economy with loans. By
extension, a banking system with weak profitability impairs monetary policy transmission.
Even if profitability among banks in the euro area has been weak for some time, fresh concerns
have recently emerged regarding their scope for improving profitability in a situation with low,
and, in particular, negative interest rates. The overall effect of low and negative interest rates
on banks’ profitability is not obvious in advance, however. Profitability can be affected in
several ways, for instance as a result of falling lending rates and funding costs, but also due to
changes in lending volumes, credit losses and commission income.

Deans and Stewart (2012) conducted a study on banks’ funding costs and lending rates. It
found out that money market and credit-deposit (CD) rates increase due to the tick up of the
prime rate. In theory, that should boost savings among consumers and businesses as they can
generate a higher return on their savings. However, it is possible that anyone with a debt burden
would seek to pay off their financial obligations to offset higher variable rates tied to credit
cards, home loans, or other debt instruments. The recent rise in the Fed funds rate will likely
cause a ripple effect on the borrowing costs for consumers and businesses that want to access
credit based on the U.S. dollar. That has an impact across numerous credit categories.

Sadjadi, Seyedhosseini and Hassanlou (2011) conducted a study titled; ‘fuzzy multi period
portfolio selection with different rates for borrowing and lending. They found out that a hike
in the Federal interest rate immediately fueled a jump in the prime rate, which represents the
credit rate that banks extend to their most credit-worthy customers. This rate is the one on
which other forms of consumer credit are based, as a higher prime rate means that banks will
increase fixed, and variable-rate borrowing costs when assessing risk on less credit-worthy
companies and consumers. Working off the prime rate, banks will determine how credit-worthy other individuals are based on their risk profile. Rates was affected for credit cards and other loans as both require extensive risk-profiling of consumers seeking credit to make purchases. Short-term borrowing will have higher rates than those considered long-term.

Neri (2013) investigated the impact of the sovereign debt crisis on bank lending rates in the euro area. She explained that a hike in interest rates boosts the borrowing costs for the U.S. government and fuel an increase in the national debt. A report from 2015 by the Congressional Budget Office and Dean Baker, a director at the Center for Economic and Policy Research in Washington, estimates that the U.S. government may end up paying $2.9 trillion more over the next decade due to increases in the interest rate, than it would have if the rates had stayed near zero. Auto companies have benefited immensely from the Fed’s zero-interest-rate policy, but rising benchmark rates will have an incremental impact. Surprisingly, auto loans have not shifted much since the Federal Reserve's announcement because they are long-term loans. A sign of a rate hike can send home borrowers rushing to close on a deal for a fixed loan rate on a new home. However, mortgage rates traditionally fluctuate more in tandem with the yield of domestic 10-year Treasury notes, which are largely affected by inflation rates.

ILLES, Lombardi and Mizen (2015) sought to determine why bank lending rates diverged from policy rates after the financial crisis. They explained that when interest rates rise, that’s typically good news for the profitability of the banking sector. But for the rest of the global business sector, a rate hike carves into profitability. That’s because the cost of capital required expanding goes higher. That could be terrible news for a market that is currently in an earnings recession. Higher interest rates and higher inflation typically cool demand in the housing sector. On a 30-year loan at 4.0%, home buyers can currently anticipate at least 60% in interest payments over the duration of their investment. A rise in borrowing costs traditionally weighs on consumer spending. Both higher credit card rates and higher savings rates due to better bank rates provide fuel a downturn in consumer impulse purchasing.

2.2.3 Exchange Rate

According to the European Commission (2013), the relationship between exchange rates and interest rates is seen in the fluctuation of prices of foreign currencies due to the movement of interest rates. High interest rates may mean high returns on investment therefore attracting
more investors. This increases the demand of the currency of that particular country and hence raising the foreign exchange rate. At the same time this relationship may be complicated since high interest rates may result to high inflation rate, which reduce purchasing power of consumers resulting to lower demand for foreign currency and hence lower exchange rates. Many World Central banks seek to exert influence over both inflation and exchange rates, through controlling monetary policy and their main tool is setting interest rates levels (Elbanna & Younies, 2008).

Under the system of freely floating exchange rates, the value of the foreign currency in terms of the local currency, like any commodity or service being sold in the market, is determined by the forces of supply and demand. Under a fixed exchange rate system, a par value rate is set between the local currency and the foreign currency by the central bank. The par value may be adjusted from time to time (Reid & Joshua, 2004).

The fluctuations in currency exchange rates could generate significant gains or losses and the entry of these into the income statement could produce a distorted impression of what is happening to financial institution concerned (Watkins, 2014). Jamal and Khalil (2011) documented that the more a company is involved in international trade, the more its accounting exposure and unless a company hedges this risk then it faces financial gains and/or losses from transaction and translation of foreign activities. Another unique dimension of exchange rate exposure is that of projects funded by foreign donors as Kinyuma (2013) investigated. Unrealized foreign exchange gains/losses according to Gatobu (2012) have an effect on the Net Income of multinational companies as posted to either income statement or owners ‘equity reserves. Foreign exchange fluctuations affect the companies’ imports, accounts payables, export sales and accounts receivables; with the net effect on the Net Income of multinational companies through the income statement or the owners’ equity reserves.

Gachua (2011) examined the effect of foreign exchange exposure on a firm’s financial performance: a case of listed companies in Kenya. This study developed a model of foreign exchange exposure dependent on three variables, the firm’s imports, exports and their effect on profits formulating the problem statement of the effects that variations in the exchange rate has in the financial performance of the selected listed companies in the Nairobi Stock Exchange for the period covering years 2001 to 2010. The study was to find out whether foreign exchange
exposure is minimized where firms have been able to match their foreign currency revenues and costs leaving them with little net exposure.

Otuori (2013) investigated the determinant factors of exchange rates and their effects on the performance of commercial banks in Kenya. The study found that exports and imports Interest rates, inflation and exchange rates were all highly correlated. By manipulating interest rates, central banks could exert influence over both inflation and exchange rates, and changing interest rates impact inflation and currency values. Higher interest rates offered lenders in an economy a higher return relative to other countries which attract foreign capital and cause the exchange rate to rise.

2.3 Effect of Economic Growth on Financial Performance of Islamic Banks

Economic growth in any sector of the economy is made possible through developing a stable international and national environment that would attract investment which yields higher returns. The government seeking economic growth must also develop prudent macroeconomic policies that will guide all the market players. These macroeconomic policies should be market friendly to entice both international and national investors, which lead to improvement of GDP (Mathuva, 2015). Training of young entrepreneurs equips them with sufficient knowledge on the markets, products and handling competition, which results in increased performance, raising the gross domestic product and per capita income. Savings and investments should be encouraged so as to improve performance of the economy.

2.3.1 Gross Domestic Product Growth Rate

Gross domestic product is the best way to measure a country's economy. GDP is the total value of everything produced by all the people and companies in the country. It doesn't matter if they are citizens or foreign-owned companies. If they are located within the country's boundaries, the government counts their production as GDP. Several problems exist in the definition of the GDP as a measure of economy growth. In a market economy, the prices used to value different goods and services should reflect not only their relative costs of production, but also the relative benefits or utilities to be derived from using them for production or consumption (Konchitchki, & Patatoukas, 2014). This establishes the link between changes in aggregate production and consumption and changes in welfare. However, changes in the volume of consumption, for example, are not the same as changes in welfare. It is widely accepted that, other things being
equal, increased expenditure on goods and services leads to increased welfare. The increase in welfare may not, however, be proportionate to the increase in expenditure.

GDP measures total number of finished goods and services monetary value manufacture in a country in a given duration of time. GDP is measured on yearly basis and it compromises all consumption by private consumers and public consumers, government outlays, investments and exports less imports occurring inside a demarcated borderline. The gross domestic product (GDP) is one key primary indicators of a country's fiscal performance. It is calculated in two methods; one is by tallying up everyone's income during the period, second one is by totalling the worth of all goods and services that are already finished and produced in the country throughout the year (Mathuva, 2015).

Kumar and Lester (2014) sought to find out whether deposit rates show evidence of too big to fail effects. They found out that the trend of GDP affected the demand for a firm asset. During the declining GDP growth, the demand for credit falls which in turn negatively affect the profitability of firms, On the contrary, in a growing economy as expressed by positive GDP growth. The same authors state in relation to the Greek situation that the relationship between inflation level and firms’ profitability is remained to be debatable. The direction of the relationship is not clear.

Etuk, Aboko, Victor-Edema and Dimkpa (2014) investigated additive seasonal Box-Jenkins model for Nigerian monthly savings deposit rates. The results suggested that clients of microfinance are less integrated into financial markets and hence they are less affected by changes in the domestic economy than other borrowers in the country. They noted that the goods that micro entrepreneurs sell generally see an increased demand when domestic economic conditions deteriorate, as consumers shift away from more expensive imported goods. She also notes that, fundamentally, micro entrepreneurs have stronger repayment ethics because of a desire to prove themselves or because they do not have access to other sources of credit. In addition to micro entrepreneur characteristics, they found that institutions who lend primarily to women offered loans with high rates and higher repayment amounts. They suggested that was because women are believed to be less risk averse. Hence, MFIs, which traditionally have focused on lending to women, may be seen to reap financial benefits from their clients’ risk profiles.
Pinter and Boissel (2016) conducted a study on the Eurozone deposit rates’ puzzle. The study revealed that gross domestic product (GDP) growth played a significant role in attracting PE investment. They also established that higher GDP growth implies higher attractive opportunities for entrepreneurs, which in turn lead to a higher need for venture funds. During period of high GDP growth and increase in aggregate demand, PE experiences solid performance and easily obtains funds to fund their acquisitions. This translates to a larger and more diversified portfolio for PE firms which subsequently are more likely to post good results. It is not surprising that cornerstone partner of PE firms such as hedge funds, mutual fund managers, banking companies and pension funds have sought to increase their exposure to this rapidly growing asset class in their fund allocations particularly when faced with high liquidity. GDP is expected to have a positive relationship with financial performance of PE firms.

Montoro and Moreno (2011) investigate the use of reserve requirements as a policy instrument in Latin America. They found out that the decreasing ratio implies that the GDP per capita readings during the period between 1950 and 1970 are underestimated compared to those during the last 35 years. The larger is the total drop in the ratio during the entire period of the observation, the larger is the overall correction. In the study, the original and the corrected per capita GDP values are used and compared. A cross-country comparison implies that GDP per capita is measured in the same currency units. There are two principal possibilities to reduce national readings of GDP per capita to some common scale: to use currency exchange rates or purchase power parities.

Gambacorta, Illes and Lombardi (2014) conducted a survey to determine whether the transmission of policy rates to lending rates have been impaired by the Global Financial Crisis. They explained that currently there is a great deal of activity in many countries to establish ‘green national accounts’ of various kinds. The surge in interest for this endeavour can be traced back some thirty years to the UN conference on the Human Environment, which took place in Stockholm in 1972. At this conference, environmental issues were, perhaps for the first time, brought to the forefront at the international policy scene. The event was followed by the World Commission on Economy and Development’s report our common future 15 years later, and a further follow-up United Nation Conference on Environment and Development in Rio de Janeiro in 1992.
Wagner (2010) conducted a study on the loan market competition and bank risk-taking. Green GDP is a term much used, but only seldom precisely defined. Most commonly, and perhaps most correctly, it has been used to designate a “corrected” GDP number, or sometimes a “corrected” GDP growth rate, where the correction seeks to take into account the depletion of non-renewable resources, as well as various damages to the environment due to pollution to air, water and soil, and also sometimes loss of ecosystem services as a consequence of pollution from economic activities. To find the true net benefits of economic activities, these activities should obviously be corrected for all costs that are associated with the economic activities. Hence, these costs should be deducted from the traditional GDP to obtain a greener GDP.

Button, Pezzini and Rossiter (2010) conducted a study titled; ‘Understanding the price of new lending to households’. It revealed that given the cost of establishing even rudimentary green accounts, it may be worthwhile to spend some time thinking about why we need these accounts and indicators, and in what form they are likely to be most useful. These events, driven by a growing recognition of the economic and ecological importance of a proper management of the natural resources and the environment, have led to a number of initiatives to establish “green national accounts” and various indicators based on the accounts to complement and correct more traditional measures of economic growth and development.

Norway started development of natural resources and environmental accounts already in the 1970s, and was thus one of the early movers in the efforts to establish "greener accounts" at the national level. Over time, an international process of revising the system of national accounts (SNA). The services produced and consumed by households are not included in the SNA except for the imputed rental of owner-occupied dwellings and the payments made to domestic staff. Similarly, no estimate is included in the SNA for the labour services of individuals provided without cost to non-profit institutions. In both these cases, the contribution of time increases the welfare of other individuals in the community.

Robertson and Rush (2013) conducted a survey to find out the developments in banks’ funding costs and lending rates. The report found out that the level of an individual’s and a nation’s welfare may be affected by a wide range of factors that are not economic in origin. Consider the effects of an exceptionally severe winter combined with an influenza epidemic. Other things being equal, the production and consumption of a number of goods and services may be
expected to rise in response to extra demands created by the cold and the epidemic; the production and consumption.

2.3.2 Per Capita Income

Per capita income is according to Ugur (2014), the mean income of the people which is calculated by dividing the GDP by the total population. In a homogeneous and infinitely mobile society with economic motivation supreme, regional differences in per capita income would be negligible. The geographic distribution of population would be substantially the same as that of income, and, with rates of natural increase everywhere the same, constant over time. Productive factors are heterogeneous and imperfectly mobile, and economic considerations do not rule alone. New techniques and changing product demands impinge with varying impact on the different areas of the country, and fertility and mortality vary (Panayotou, 2016). The real world presents a picture of differences among regions in the level and trend of per capita income, and of disparate and changing regional distributions of population and total income.

Slovik (2012) noted that per capita consumption is another quantitative indicator that is useful for judging welfare improvement. It is therefore appropriate to start by looking at the changes in real (i.e. at constant prices) per capita income and consumption. The proportion of the labour force in agriculture has a particular bearing on the emerging United Nations' interest in an International Food and Agricultural Authority as an aid to raising the world's nutritional and general living standards. The chief means of expanding world food production was through more efficient methods and technological advances. Hand in hand with these the proportion of the labour force in agricultural occupations must be reduced. The industrialization process has not yet played the role it should in raising living standards in most parts of the world.

Yildirim (2012) sought to determine the interest rate pass-through to Turkish lending rates and found that in every region, whether highly agriculturalized south-eastern Europe, China, India, Africa, Latin America, and southern United States, or the highly industrialized areas of western Europe and north-eastern United States, per capita incomes are larger where the proportions of the labour force engaged in agriculture are lower; and, practically everywhere, economic programs providing for readjustment out of agriculture are called for. China, India, many sections of Latin America, Africa, Eastern Europe, and south-eastern United States are
obviously over-agriculturalized such as 60 to 85% of their inhabitants are engaged in producing food and other farm products.

Nguyen and Islam (2010) conducted a study titled ‘asymmetries in the Thai lending–deposit rate spread: An econometric analysis. The study found out that the low per capita incomes of China and India, could be doubled by shifting no more than 15 percent of their labour force from food production to other pursuits (with more efficient use of human and natural resources); an additional shift of less than 10 percent would treble them. The low incomes of Rumania and Bulgaria could be doubled if less than 20 percent of the labour force were directed into non-agricultural pursuits. Even in a largely industrialized country such as the United States, of whose working population less than a fifth is now engaged in agriculture, there are over-agriculturalized areas. For example, Mississippi (60 percent of the labour force is in agriculture) and North Dakota (50 percent) could double their per capita incomes by programs that would shift 25 percent of their labour force out of farming into other activity.

About 800 million of the world's present population, 2.2 billion, are classed as gainfully occupied; of these, probably 500 million are engaged in agriculture. If, in the course of a reasonable period—say, the first two decades after the war—through appropriate regional programs including those to increase agricultural productivity, if it was possible to alter the world's agricultural-industrial balance, so that 40 percent were engaged in farming, instead of over 60 percent as at present, the general gain in productivity and income and living standards would be enormous. If the United Nations took full advantage of the post-war opportunity to raise living standards throughout the world, over 150 million persons in the present world population could quit farming while the remaining 350 million increased their efficiency.

Markusen (2013) conducted a study on putting per-capita income back into trade theory noting that in order to determine the ideal balance between agriculture and industry, both economic and sociological factors must be considered, but as far as economic evidence is concerned, there does not seem to be any definite indication that the reduction in agricultural pursuits can go too far if countries can draw upon the agricultural products of other areas. England and New England are cases in point. England, where 6% are in agricultural pursuits, imports more than half of its food requirements. New England states, such as Massachusetts, Connecticut, and Rhode Island, where fewer than 3 percent are in agricultural pursuits, get practically all their food supplies from other states. It is possible that at some point too large concentration in non-
agricultural, secondary, industries (such as fuel mining and textiles) tends to reduce per capita incomes and calls for a further readjustment toward tertiary pursuits. However, evidence from all over the world (except perhaps Australia and New Zealand, where productivity in primary industries is greater than in secondary and tertiary) shows that the lower the proportion in agriculture the higher the income.

Maddison (2010) established the statistics on world population, GDP and per capita GDP. The study found out that several countries do not come within these geographical groups. The most obvious are Eire and Spain; Switzerland, belonging to the second group because of contiguity, appears to have a relatively high income. Greece, and possibly Portugal, may also be considered as belonging to the second group. The income-agriculture relationships for these several groups seem to be essentially similar. It is of course likely that when more adequate data for certain countries become available, closer statistical relationships and different groupings may suggest themselves.

DeNavas-Walt (2010) investigated the Income, poverty, and health insurance coverage in the United States. They found out that over the last two decades, per capita personal income has become an increasingly common measure of the effectiveness of economic development policy. Many states throughout the nation now include some measure of income in their formal performance measures. The use of income measures in benchmarking economic development policy is attractive for a number of reasons. Economic theory suggests that wages are closely linked to individual productivity, and, hence, are a potential measure of accumulated economic development efforts of all types. Likewise, higher personal income leads to an increased demand for goods and services, resulting, in part, in greater employment, investment, and production within a region. So, for policymakers who wish to monitor and assess public policy, personal income is an attractive choice for informative, yet low-cost, data to collect and observe. However, there are several important caveats to using personal income as a measure of economic development. These demand a more detailed analysis of the issue to fully inform policy choices. Personal income on a per capita basis may vary dramatically at the state and county levels, due to factors such as the degree of urbanization, family composition, share of farming in a region, tax rates, human capital, and factors that are often labelled as socioeconomic, such as the share of immigrants or single-parent households.
2.4 Effect of Exchange Rate on Financial Performance of Islamic Banks

2.4.1 Exchange Rates

Exchange rates have a significant effect on financial performance when the rates of exchange in currency has variations and affect right the import price including the production cost and Consumer Price Index (CPI), this is noted by Cooper (2014) when looking at exchange rate choices. The exchange rate discrepancies are transmitted to domestic prices through three networks of prices of imported consumption goods, exchange rate movement affects domestic prices directly. The second factor affecting the performance is intermediate imported goods prices influencing exchange rate movement which has effect on production cost of domestically produced goods. The last is domestic goods priced in foreign currency.

Changes in a country’s interest rates also affect its currency, through its impact on the demand and supply of financial assets in the UK and abroad. For example, higher interest rates relative to other countries, make the UK attractive the investors, and leads to an increase in the demand for the UK’s financial assets, and an increase in the demand for Sterling. Conversely, lower interest rates in one country relative to other countries leads to an increase in supply, as speculators sell a currency in order to buy currencies associated with rising interest rates. These speculative flows are called hot money, and have an important short-term effect on exchange rates.

The level of these of fluctuations in the exchange rate account for the incomes earned from exchanging one currency to another. According to Chkili and Nguyen (2014), the demand increases for domestic goods when factors affecting prices causes rise in price level of imported goods and services hence reduction in completion is experienced. And decreasing rate of currency exchange safeguards the local industry and its production. This shift equilibrium which results pressure mounting on domestic prices and nominal wages as demand increases. Supplementary, upsurge in rate of exchange lead to foreign currency gains in a well-controlled macroeconomic policy environment by commercial banks which are integrated in their income statements to progress on their performance (Chkili & Nguyen, 2014).

Metrick and Yasuda (2007) agrees by asserting that exchange rate policy in Kenya has undergone various shifts mostly driven to a large extent by the economic events especially balance of payment crisis. Depreciation of Kenya shilling against United States Dollar is expected to decrease PE firms’ financial performance. The issue of exchange rate levels and
their relationship with other major economic variables such as growth, income, current account balances, consumption and trade have led to a great deal of discussion since the beginning of the mid-2000s, in particular when global imbalances started to widen. Even if the literature has not yet achieved a definitive consensus regarding the best definition of the long-term equilibrium real exchange rate, Onyancha (201) recall that various empirical papers have studied the impact that exchange rate overvaluations or undervaluation’s can have on performance. In particular, some studies have found that overvaluation hinders financial performance.

Obadan and Okojie (2010) while carrying out a study in Nigeria using the moving average standard deviation as a measure of variability also established the exchange rate plays a role in connecting the price system in different countries thus enabling traders to compare price directly. The study found out that changes in exchange rate have a powerful effect on imports and exports of the countries concerned through effects on relative prices of goods. He considered the exchange rate to be an important conditioning variable for counter-inflationary policy. This stems from the basic make-up model of pricing and the view that nominal wages tend to adjust to price changes. Exchange rate under this condition conveys information about the fundamentals in the economy and a fast-depreciating local currency may fuel inflationary expectations.

In Kenya, Muriithi (2011) in the study showed that exchange rates had a positive influence on market performance. In addition, Mongeri (2011) did a study on the impact of foreign exchange rates and foreign exchange reserves on the performance of NSE share index whose objective was to determine the impact of foreign exchange rates and foreign exchange reserves on the performance of NSE index. The study used a longitudinal study design. Tilman, Balzer, Hill and Befort (2011) conducted a study on global food demand and the sustainable intensification of agriculture. It established that the banking sector existence has been a stimulant to wake others while a sector companies from another sectors effort to survive and increase the benefits it receives, a banking sector to drive the economy beginning to survive. In this study, globalization of banking that is reflected to the surface as a perfect competition between national banking and private banking with different standard operating authority as a leading competition.

2.4.2 Exchange Rate Determined
The foreign exchange market involves firms, households, and investors who demand and supply currencies coming together through their banks and the key foreign exchange dealers. Figure 1(a) offers an example for the exchange rate between the U.S. dollar and the Mexican peso. The vertical axis shows the exchange rate for U.S. dollars, which in this case is measured in pesos. The horizontal axis shows the quantity of U.S. dollars being traded in the foreign exchange market each day. The demand curve (D) for U.S. dollars intersects with the supply curve (S) of U.S. dollars at the equilibrium point (E).

The exchange rates quoted by banks to their customer are based on the rates prevalent in the interbank market. The big banks in the market are known as market makers, as they are willing to buy or sell foreign currencies at the rates quoted by them up to any extent. Depending buy or sell foreign currencies at the rates quoted by them up to any extent. Depending upon its resources, a bank may be a market maker in one or few major currencies. When a banker approaches the market maker, it would not reveal its intention to buy or sell the currency. This is done in order to get a fair price from the market maker.

Rao (2017) states that Kenya has been committed to floating exchange rate in October 1993 after abolishing the use of dollar currency in pegging the Kenyan shilling. In his on monetary policy and exchange rate in Kenya, Ndungu (2009) suggests that monetary shocks drive real exchange rate movements, and real exchange rate movements have an impact on monetary shocks. That is, they drive each other. This implies that when money supply or domestic credit growth is excessively out of line with the growth in economic activity, it feeds into the real exchange rate movements with feedback effects with excess money supply growth. Domestic credit has no feedback effects with the real exchange rate, but excess money supply has, through the channel of net foreign assets.

The results further show that there are feedback effects between monetary shocks and the cyclical movements of the real exchange rate, and that this cyclical component appreciates the nominal exchange rate. In addition, money supply growth depreciates the nominal exchange rate, exchange rate interventions have been important in explaining nominal exchange rate movements, and real income and inflation are negatively associated with the nominal exchange rate movements.
2.4.2 Interest Rates

An interest rate represents the price a borrower pays for the use of money he does not own, and has to return to the lender who receives for deferring his consumption, by lending to the borrower. Interest can also be expressed as a percentage of money taken over the period of one year (Abdeen & Haight, 2011). An interest rate is very well stated as the rate of increase over time of a bank deposit. An Interest, which is charged or paid for the use of money, is often expressed as an annual percentage of the principal. It is calculated by dividing the amount of interest by the amount of principal. Interest rates often change as a result of the inflation and Government policies. The real interest rate shows the nominal interest rate; inflation. A negative real interest rate means that the nominal interest rate is less than the inflation rate (Omondi, 2014). Interest rate is the tool used by the central bank of a country to keep a check on any major currency fluctuation. An increase in interest rate is necessary to stabilize the exchange rate depreciation and to curb the inflationary pressure and thereby helps to avoid many adverse economic consequences.

Bankole and Oyeniran (2013) on a study on the impact of inflation on financial sector performance in eleven countries; mentions that the central bank is able to keep the exchange rate under a targeted range by manipulating the interest rates. Higher interest rates bring in more investment from overseas as the returns are higher than countries with low interest rates. According to Mundell-Fleming model, an increase in interest rate is necessary to stabilize the exchange rate depreciation and to curb the inflationary pressure and thereby helps to avoid many adverse economic consequences. The high interest rate policy is considered important for several reasons.

Hameed and Rose (2016) investigated the exchange rate behaviour with negative interest rates. They concluded that interest rate policies provide the information to the market about the authorities’ resolve not to allow the sharp exchange rate movement that the market expects given the state of the economy and thereby reduce the inflationary expectations and prevent the vicious cycle of inflation and exchange rate depreciation. They raise the attractiveness of domestic financial assets as a result of which capital inflow takes place and thereby limiting the exchange rate depreciation. They not only reduce the level of domestic aggregate demand but also improve the balance of payment position by reducing the level of imports.
2.5 Effect of Money Supply on Financial Performance of Islamic Banks

2.5.1 Money Supply and Monetary Policy

Money supply is the sum of currency outside banks and deposit liabilities of commercial banks (CBK, 2012). Deposit liabilities are defined in narrower and broader senses as follows: narrow money (M1); broad money (M2); and extended broad money (M3).

These aggregates are defined as follows:

\[
M1 = \text{Currency outside banking system + demand deposits.}
\]

\[
M2 = M1 + \text{time and savings deposits + certificates of deposits + deposit Liabilities of Non-Bank Financial Institutions (NBFIs).}
\]

\[
M3 = M2 + \text{residents' foreign currency deposits.}
\]

Money supply (M3) is expected to have positive effect on profitability of commercial banks. Graphically, the relationship between monetary policy, banking and money is depicted in the figure 2.1 below:

**Figure 2.1: Money, Banking and Monetary Policy**

*Source: Bain & Howells (2009)*

In figure 2.1 above, the money supply curve is vertical simply because Money supply is independent of interest rates because it is determined by monetary policy actions of the government.

The volume of broad money supplied to the economy is then simply determined as a multiple of the monetary base, depending on the size of the money multiplier (Freixas, & Rochet, 2008). The concept of the money multiplier derives from the basic feature of deposit banking that, under normal conditions and when there is confidence in the banking system, banks only need...
to maintain a fraction of the deposits they have accepted in the form of highly liquid, cash-equivalent assets (such as central bank reserves). The rest of the deposits can be used to acquire higher yielding, less liquid assets, in particular loans. According to this framework, therefore, when the central bank increases the volume of reserves it makes available to banks, the latter can create additional deposits equal to a multiple of this increase (Goodhart, 2014).

Banks may also lend to borrowers, but thereby create deposits (initially held by the borrowers). The deposits constitute claims on the bank that are capital-certain and demandable, that is redeemable at a known nominal value (Freixas, & Rochet, 2008). These deposits have as a key feature the provision of liquidity services to their owner and, in some cases, such as overnight deposits, can also be used for payment services. As described by Diamond & Dybvig (2010), this transformation of illiquid claims (e.g. bank loans) into liquid claims (e.g. bank deposits) is a key defining element of a bank (Von, 2014). Non-monetary financial intermediaries do not provide their customers with liquid deposits.

In 2014, Akomolafe, danladio, Babalola and Abah (2014) examined the impact of monetary policy on commercial banks’ performance in Nigeria from 2003-2013. Monetary policy was proxied with interest rate and money supply. Profit before tax (PBT) was used to represent commercial banks’ performance. Capital adequacy and Management efficiency were used to capture the banks’ individual characteristics. Pooled regression, Fixed effect regression, and random effect regression were all carried out in the analysis. However, Hausman test revealed that Fixed effect regression is the most appropriate. The results show that there is a positive relationship between the dependent variable (bank profit) and money supply.

Furthermore, Qin (2017) investigated the impact of money supply and electronic money: empirical evidence from central bank in china. They found out that currency exchanges between the investee country and the investors’ home currency have an impact on private equity firms’ financial performance. Real exchange rate is commonly known as a measure of international competitiveness. It is also known as index of competitiveness of currency of any country and an inverse relationship between this index and competitiveness exists. Lower the value of this index in any country, higher the competitiveness of currency of that country was. It is a widely held view that exchange rate volatility should affect corporate expected cash flows and hence its performance by causing changes in the home currency denominated revenues (costs) and the terms of competition for firms with international activities.
Ali-Qudat and Jardat (2013) sought to investigate the Impact of Macroeconomic Variables and Banks Characteristics on Jordanian Islamic Banks Profitability. The regression results indicated that the constructions licensed square meters have a positive significant impact on return on assets (ROA) and (ROE). The higher growth in this active sector leads to a high demand for Islamic financing mainly by Murabaha and Ijarah and for both households and investors and this will lead to a higher profitability. Therefore, the reached a conclusion that money supply growth has a positive and significant impact on both return on assets and return on equity, this is because all of these variables reflect the economic environment whether the economy is working well or not and is directly reflected on Islamic banks as well as other sectors in the economy. So this indicates that that the macroeconomic factors measured by Amman stock exchange index, money supply growth and the construction licensed square meters are a good determinants for Islamic banks financial performance.

2.5.2 Monetary Policy and Banks

Several empirical studies have been conducted on monetary policy and commercial banks. Ahumada and Rodrigo (2004) carried out an investigation on banking industry and monetary policy in Chile. It was established that banks play a very significant role in the implementation of monetary policy. Monetary policy largely affects that market interest rates thus forcing banks to change their investment decisions. When banks change their investment decisions their financial performance is also likely to change or be affected due to the changes in monetary policy. The study concluded that regulatory distortions have an important effect on the efficiency and profitability of the banking industry. Whether we measure the spread from intermediation or the interest rates charged for traditional banking activities, the microeconomic structure has an effect on these variables.

Another study was also carried out by Brissimis and Delis (2009) bank heterogeneity and monetary policy transmission in Europe. The main aim of the study was to examine the role of bank liquidity, capitalization and market power as internal factors influencing banks’ reaction in terms of lending and risk-taking to monetary policy impulses as well as the ultimate impact of a monetary policy change on bank performance is also considered. The findings confirm that the average value reported for the coefficient of the monetary policy variable in the lending equations is negative and statistically significant regardless of which smoothing variable is used. The study found that monetary policy changes cause a very different response of bank
lending on the basis of their capital structures, with more capitalized banks responding less to monetary policy changes. The same and even more pronounced in terms of variance are the results obtained when the distributional characteristic is the market power variable. In particular, high capitalization and market power tend to buffer the negative impact on bank lending of a shift in policy rates.

In a study by Fatade (2004) on the impact of monetary policy on banks' performance in Nigeria, a number of observations are made. The main purpose of the study was to establish whether the various monetary policy measures instituted in the country over the years had directly and indirectly affected the performance or the bank sector in Nigeria. The results from the study indicate that various monetary policy measures instituted in the country over the years have directly and indirectly affected performance of the banking sector in a number of ways while includes Banks profitability, Deposit/Savings mobilization Loans & Advances and so on. It is also clear from the findings that the effectiveness of bank's performances depends on the instruments used in macroeconomic policies and the prevailing economic conditions and the deregulation of the sector has led to a number of improvements.

Yener, Leonardo and David (2010) also carried out a study on the role of monetary policy on bank risk taking. The main purpose of the study was to investigate the relationship between short-term interest rates and bank risk. The study made use of a unique database that includes quarterly balance sheet information for listed banks operating in the European Union and the United States for duration of 10 years. The study findings confirm that unusually low interest rates over an extended period of time contributed to an increase in banks' risk.

On graphical illustration, the relationship between interest rate and money supply could be explained as indicated in figure 2.2:
Figure 2.2: Interest Rate and Money Supply

Source: Mukher (2017)

An increase in the Money Supply (MS1 to MS2) causes the Interest Rate to fall. Interest rates fall from $R^1$ to $R^2$ and the Equilibrium Point drops from 1 to 2 showing an increase in the Demand for Money. In the event of a decrease in the Money Supply (government increase discount rate and raise reserve requirements), interest rates would increase and demand for money decreases.

2.5.3 Money Supply and Bank Liquidity

Liquidity refers to the ability of a firm to meet its short term obligation as and when they fall due. Adrian and Shin (2009) liquidity, monetary policy, and financial cycles in the United States of America. The main aim of the study was to establish the relationship between the balance sheet of financial institutions and the tightening of the monetary policy. The findings from the study reveal that commercial banks and other financial intermediaries increase their leverage during asset price booms and reduce it during busts. This procyclical behavior is likely to exacerbate financial market fluctuations as institutions overturn the normal supply and demand responses by buying assets when the price rises and selling them when the price falls. The study therefore concluded that the short term rate target by policy makers may be a key price variable in any economy.

Another study was also carried out by Spiegel (2008) financial globalization and monetary policy discipline. The study was a survey done by the reserve bank of San Francisco. The main objective of the study was to establish the relationship between financial remoteness and
financial openness. The study confirmed that there is a negative relationship between median in action and financial globalization in the base specification, but this relationship is sensitive to the inclusion of conditioning variables or country fixed effects, precluding any strong inferences.

However, studies on non-conventional banks suggest totally different findings. To begin with, Islamic banks do not suffer from excess liquidity and therefore they are more cost effective in comparison to the conventional banking system. This therefore enhances their profitability which improves their financial performance (Safiullah, 2010). According to Ahmednoor (2012) any change in the size of Islamic bank’s product will have an effect of the earnings of the bank. According to Ika and Abdullah (2011) Islamic banks are more liquid than CBs and have better liquidity management practices compared to the conventional banks.

According to Abdulle and Kassim (2012) Islamic banks more of the liquid assets as compared to the traditional banking systems and therefore they are less susceptible to the liquidity risks due to the financial crisis. The findings of the study by Rafiuddin and Alam, (2012) indicate that the conventional banks are more profitable compared to the Islamic banks and Islamic banks have high liquidity and low risk in comparison to conventional banks. The literature by Zulfiqar and Anees (2012) indicates that liquidity risk significantly affects the profitability and therefore the financial performance of Islamic banks. Liquidity of any institution determines the source of internal financing which is more attractive than external sources of financing since it is costless compared to external sources of fund (Sheikh & Wang, 2011a). It is therefore evident from the literature above that Islamic banks have high liquidity compared to the conventional banking systems.

2.6 Chapter Summary
The discussed theoretical and empirical study has revealed the diverse findings and views of previous authors on studies relation to macroeconomics variables on financial performance on commercial banks. Various scholars and researchers deduce that various factors such as money supply, inflation, economic growth and lending rates significantly affect financial performance of banks in Nairobi. The empirical study has explored their opinion and remarks over their findings. Most of the studies focused on countries in Islamic countries giving diverse remarks and opinions that are mostly related. This study is therefore relevant in bridging the gap of scholarly articles by exploring the macroeconomic variables’ effect on the financial
performance in Islamic banks in Kenya. The next chapter provides the research methodological designs that were applied in the study.
CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction
This section provides deeper understanding of the methodology utilized in the study. Looking at the three main stages of the study; collecting, processing and analyzing and presenting data, the researcher is placed in position to identify the procedures and techniques used. Precisely, research design, identified population, instruments and procedures for conducting data collection, and finally analysis and presentation of data.

3.2 Research Design
Scholars Cooper and Schindler (2014) agree that a research design encompasses a layout from which desired population, sample size and study methods are selected. Burns and Grove (2005) define a research design as “a blueprint for conducting a study with maximum control over factors that may interfere with the validity of the findings”. The motive is to enable the researcher to respond to the study questions more diligently. To this effect, research design provides foundation for collecting, analyzing, summarizing as well as presenting data. The researcher opted for case study research design. This is because this form of design enables the collection of in depth information about the population being studied. In this case, data collection and analysis comprised the research design upon which relevant conclusions were drawn.

3.3 Population and Sampling
3.3.1 Population
In statistics, a population is an entire group about which some information is required to be ascertained (Banerjee & Chaudhury, 2010). In selecting a population for study, the research question or purpose of the study suggests a suitable definition of the population to be studied, in terms of location and restriction to a particular age group, sex or occupation. The population must be fully defined so that those to be included and excluded are clearly spelt out (inclusion and exclusion criteria). In other words, the researcher obtains items to be included in the study from the population. Also, postulation and generalization of the results is based on the population. This is a case study and the target population comprised First Community Bank where information in the macroeconomic variables and financial performance was obtained.
3.3.2 Sample Design

3.3.2.1 Sample Frame

A sampling design refers to the steps taken by the researcher in the selection of the study elements from the targeted population (Mugenda & Mugenda, 2012). In this study, which is case study then all records and reports from the First Community Bank were included in the study. Since the researcher targeted specific elements of the population, selective or purposive sampling technique was applied.

3.3.2.2 Sampling Technique

Zikmund and Griffin (2013) asserts that sampling technique consists of scientifically selecting the desired sample size which would provide estimates for generalization of the study within a given margin. The researcher found purposive sampling most desirable since the study period of 5 years is chosen from a wide range of financial years. Through purposive sampling, a specific study duration of 2013-2017 financial performance. Furthermore, review of data and its subsequent analysis were done in conjunction with data collection.

3.3.2.3 Sample Size

Thorpe and Jackson (2012) equates a sample size to a subset of those entities that decisions relate to. The sample must be hence carefully selected to be representative of the population and the researcher also needs to ensure that the subdivisions entailed in the analysis are accurately catered for (Bryman, 2012). Besides, Bryman (2012) adds that sample selection must be handled with much care inorder to attain fair representation of all the subdivisions entailed in the analysis. In this respect, the 20 quarterly financial publications from the First Community Bank comprised the sample size.

3.4 Data Collection Methods

Data collection refers to the techniques applied in extracting the required study data for analysis (Mugenda & Mugenda, 2012). The study utilised secondary data obtainable from the records of the First Community Bank and the CBK reports that ranges from 2012 to 2017. According to Bless, Higson-Smith and Kagee (2008), secondary information or data sources are data neither collected by the user nor specifically for the user but involves the collection and analysis of the published materials and information from internal sources. Secondary data may be obtained by collecting information from a diverse source of documentations or
electronically stored information. The study data was collected on all variables (Interest Rate, Economic Growth, Exchange rate and Money Supply) and financial Performance of the First Community Bank as at December 2017.

3.5 Research Procedures
The study applied desk research where data was collected from published reports at the archives of the First Community Bank and the Central Bank of Kenya. Data on interest rates, lending rates, Treasury bill rates and exchange rates was collected from the Annual Bank Supervision Report printed by the Central Bank of Kenya on annual basis.

3.6 Data Analysis Methods
Zikmund and Griffin (2013) elucidates that data analysis is the process of inspecting, cleaning, transforming, and modelling data with the goal of discovering useful information, suggesting conclusions, and supporting decision making. Data analysis has multiple facets and approaches, encompassing diverse techniques under a variety of names, in different business, science, and social science domains (Kothari, 2008). The study applied quantitative method to determine the relationship from the data that was obtained. This model of analysis examined the simultaneous effects of the independent variables on a dependent variable.

The study will employ descriptive analysis technique. This included the use of table, charts, graphs, percentages and frequencies (Mugenda & Mugenda, 2012). Multiple regressions were used to determine the relationship between profitability and selected independent variables using the Statistical Package for Social Sciences (SPSS) IBM version 22.0

The researcher will conduct a multiple regression analysis so as to determine the extent to which the factors influence financial performance of commercial banks in Nairobi, Kenya. The following model was adopted:

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon \]

Whereby
- \( Y \) = Financial Performance (ROA)
- \( X_1 \) = Lending Rate
- \( X_2 \) = Economic Growth Rate (gdp)
- \( X_3 \) = Exchange Rate
- \( X_4 \) = Money Supply (M3)
- \( \epsilon \) = Error term, in this case it is assumed to be zero (0)
3.7 Tests For Significance

3.7.1 Normality Test

Normality test was conducted to ascertain probability that the sample came from a normally distributed population. This is required for any linear regression as having residuals that are not normally distributed may produce forecasts that are inefficient or biased. The Normality tests involved determination of Kolmogorov-Smirnova and the Shapiro-Wilk. Results are presented in Table 3.1. The findings indicate that most of the the p values were above 5% indicating that residuals for all the variables were normally distributed.

Table 3.1: Tests For Normality

<table>
<thead>
<tr>
<th>Tests of Normality</th>
<th>Kolmogorov-Smirnova</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>df</td>
</tr>
<tr>
<td>Economic Growth</td>
<td>.285</td>
<td>20</td>
</tr>
<tr>
<td>Money Supply</td>
<td>.192</td>
<td>20</td>
</tr>
<tr>
<td>Exchange Rate</td>
<td>.209</td>
<td>20</td>
</tr>
<tr>
<td>Interest Rate</td>
<td>.150</td>
<td>20</td>
</tr>
<tr>
<td>ROA</td>
<td>.282</td>
<td>20</td>
</tr>
</tbody>
</table>

* This is a lower bound of the true significance.

a. Lilliefors Significance Correction

3.7.2 Testing Multicollinearity Using Tolerance and VIF

The study assessed multicollinearity in the data using variance inflation factor (VIF) and Tolerance Levels. Multicollinearity exists when two or more of the predictors in a regression model are moderately or highly correlated Tolerance level formula is calculated as 1 divided by VIF while the t statistic formula is calculated as coefficient divided by standard error. t statistic and p values have opposite values all the time. When P value goes up, the variable is not significant. After removing the problem of multicollinearity from a regression model, some of the variables can become significant. The results are presented in Table 3.2. For there to be multicollinearity, the VIF of any two variables needs to be 10 or above. In the study, no variable had VIF of more than 10. Furthermore, the VIFs of the independent variables were very small. This indicates that no two independent variables were highly correlated.

Table 3.2: Tests For Multicollinearity

<table>
<thead>
<tr>
<th>Coefficientsa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
</tbody>
</table>
### Table 3.3: Reliability Tests

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach’s Alpha (α)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest Rate</td>
<td>.699</td>
</tr>
<tr>
<td>Economic Growth</td>
<td>0.753</td>
</tr>
<tr>
<td>Money Supply</td>
<td>0.811</td>
</tr>
<tr>
<td>Exchange Rate</td>
<td>0.792</td>
</tr>
<tr>
<td>Return on Asset</td>
<td>0.827</td>
</tr>
</tbody>
</table>

### 3.7.4 Reliability Tests

Reliability of the instruments on multiple items variables (e.g. interest rate, economic growth, money supply, exchange rate and financial performance of Islamic banks) were tested using the Cronbach Alpha (α). The higher the value, the higher the level of reliability of the instrument. Cooper & Schindler (2014) indicated that an alpha value of at least 0.7 is reliable. Based on the findings in table 3.3, the data instrument was therefore reasonably acceptable as depicted by Cronbach Alpha (α) values that were mostly more than 0.7.

### 3.8 Chapter Summary

Chapter three has enumerated the research methodology and design. It has given a detailed analysis of the population and the sampling process that was used in collecting the research data. Purposive sampling was applied on the population. This was done to ensure the results are effectively representative. Secondary data was obtained from the records on financial performance held by the top management at the First Community Bank and the annual Central Bank of Kenya report; this information was collected using a data collection sheet. Analysis of data was carried out using the statistical Package for Social Sciences version 22.0 by IBM. The next chapter provides the analysis and presentation of the study findings.
CHAPTER FOUR

4.0 RESULTS AND FINDINGS

4.1 Introduction
This chapter presents the results of the study based on the research’s specific objectives. The descriptive statistics were presented first followed by the model results. The chapter is further sub divided into several sections that are pertinent to the subjects under study. The data sources were published annual reports spanning five years (2013-2017) for the First Community Bank as well as other publications. The chapter summary is also given.

4.2 Effect of Interest Rate on Financial Performance of Islamic Banks
This section provides descriptive and inferential results on the effect of interest rate on financial performance of Islamic banks. The Descriptive Statistics entails the minimum and maximum values for each variable item, the standard deviation and the measures of spread. On the other hand, the inferential statistics includes the correlation and regression analysis for each variable.

4.2.1 Descriptive Statistics on Effect of Interest Rate Financial Performance
Table 4.1 gives a breakdown of descriptive statistics for the interest rate changes within the banking sector. The average interest rate stood at 15.95 while the standard deviation was at 1.52, kurtosis at -1.31, skewness at 0.03 while 14.0 and 18.30 were the minimum and the maximum recorded queerly rates respectively.

<table>
<thead>
<tr>
<th>Table 4.1: Descriptive Statistics For Interest Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>-----------------</td>
</tr>
<tr>
<td>Interest Rate</td>
</tr>
</tbody>
</table>

4.2.2 Correlation Analysis Between Interest Rate and Financial Performance
The findings in table 4.2 indicates that interest rate had a weak positive correlation (+0.532) with the financial performance of Islamic banks. The results were also found to be statistically significant, p-value 0.007<0.05 significance level. As a consequence, Islamic banks would tend to perform better in financial terms when the interest rate is higher.
4.2.3 Regression Between Interest Rate and Financial Performance of Islamic Banks

A regression analysis was performed between interest rate and parameters of financial performance and it was found out that the R squared value was .186 hence only 18.6 % of the variation in return on asset (ROA) of Islamic banks was explained by the variations in the interest rates. The p value was 0.003 and therefore statistically significant as indicated in table 4.3.

Table 4.3: Regression Between Interest Rate and Financial Performance

<table>
<thead>
<tr>
<th>Model Summary</th>
<th>Parameter</th>
<th>Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>R Square</td>
<td>F</td>
</tr>
<tr>
<td>Linear</td>
<td>.186</td>
<td>4.126</td>
</tr>
</tbody>
</table>

Table 4.2: Correlation Analysis Between Interest Rate and Financial Performance

<table>
<thead>
<tr>
<th>Financial Performance</th>
<th>Correlations</th>
<th>Interest Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.532**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.007</td>
<td></td>
</tr>
<tr>
<td>Sum of Squares and Cross-products</td>
<td>36.950</td>
<td>-17.426</td>
</tr>
<tr>
<td>Covariance</td>
<td>1.945</td>
<td>-.917</td>
</tr>
<tr>
<td>N</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interest Rate</th>
<th>Correlations</th>
<th>Financial Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>-.432</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.057</td>
<td></td>
</tr>
<tr>
<td>Sum of Squares and Cross-products</td>
<td>-17.426</td>
<td>44.070</td>
</tr>
<tr>
<td>Covariance</td>
<td>-.917</td>
<td>2.319</td>
</tr>
<tr>
<td>N</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

4.3 Effect of Economic Growth on Financial Performance of Islamic Banks

4.3.1 Descriptive Statistics on Effect of Economic Growth Financial Performance

Table 4.4 shows the tabulated data for Kenya’s GDP during the period 2013 to 2017. The mean gdp stood at 5.73 with the minimum value at 2.02 while the maximum quarterly gdp registered
was 7.33. The standard deviation registered was 1.70. Other measures of spread, that is kurtosis and spread are illustrated below:

**Table 4.4: Descriptive Statistics on Economic Growth (GDP)**

<table>
<thead>
<tr>
<th></th>
<th>Minimum Statistic</th>
<th>Maximum Statistic</th>
<th>Mean Statistic</th>
<th>Std. Deviation Statistic</th>
<th>Skewness Statistic</th>
<th>Kurtosis Statistic</th>
<th>Std. Error Statistic</th>
<th>Std. Error Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>2.020</td>
<td>7.330</td>
<td>5.685</td>
<td>1.677</td>
<td>-0.833</td>
<td>0.512</td>
<td>-0.720</td>
<td>0.992</td>
</tr>
</tbody>
</table>

**4.3.2 Correlation Analysis Between Economic Growth and Financial Performance**

Results on the Economic Growth and Financial Performance revealed a fairly strong positive Pearson Correlation of 0.637. The results were also statistically significant at 0.003, p value<0.05. This meant that economic growth is directly proportional to the financial performance of Islamic banks. That is, as the gdp of the country grows, there is high tendency that banks would register a subsequent increment in the financial statements.

**Table 4.5: Correlation Analysis Between Economic Growth and Financial Performance**

<table>
<thead>
<tr>
<th></th>
<th>GDP</th>
<th>Financial Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Correlations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.003</td>
</tr>
<tr>
<td></td>
<td>Sum of Squares and Cross-products</td>
<td>53.423</td>
</tr>
<tr>
<td></td>
<td>Covariance</td>
<td>2.812</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>20</td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Pearson Correlation</td>
<td>.637**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.003</td>
</tr>
<tr>
<td></td>
<td>Sum of Squares and Cross-products</td>
<td>28.302</td>
</tr>
<tr>
<td></td>
<td>Covariance</td>
<td>1.490</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>20</td>
</tr>
</tbody>
</table>

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

**4.3.3 Regression Between Economic Growth and Financial Performance in Islamic banks.**

A regression analysis was performed between economic growth and parameters of financial performance and it was found out that the R squared value was .377 hence only 37.7% of the variation in return on asset (ROA) of Islamic banks was explained by the variations in the
economic growth. The p value was 0.004 and therefore statistically significant as indicated in table 4.6.

**Table 4.6: Regression Between Economic Growth and Financial Performance**

<table>
<thead>
<tr>
<th>Model Summary</th>
<th>Parameter</th>
<th>Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model R Square</td>
<td>F</td>
<td>df1</td>
</tr>
<tr>
<td>Linear</td>
<td>.377</td>
<td>10.906</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Economic Growth

The regression model becomes;

Y = .963 + 0.507X

The Y intercept, .963 represents the units of performance when there is no interest rate. The gradient or slope is .507, hence, with a one unit increase in interest rate, the expected change in financial performance, ROA, is an increase of .507 units.

**4.4 Effect of Exchange Rate on Financial Performance of Islamic Banks**

**4.4.1 Descriptive Statistics on Effect of Economic Growth Financial Performance**

Table 4.7 indicates that the average exchange rate of the Ksh against the US dollar ($) was 90.73, standard deviation 11.38, median 93.02. Measures of spread indicated kurtosis at -1.95, skewness at -0.11 while maximum rate was 103.65 and minimum rate was 75.43.

**Table 4.5: Descriptive Statistics on Effect of Foreign Exchange**

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
</tr>
<tr>
<td>Statistic</td>
</tr>
<tr>
<td>Exchange Rate</td>
</tr>
</tbody>
</table>

**4.4.2 Correlation Analysis Between Exchange Rate and Financial Performance**

The researcher also sought to obtain the correlation between movement in the exchange rate and its impact on the financial performance Islamic banks. The Pearson Correlation is -.221 depicting an inverse relationship between movements in the exchange rate and financial performance of Islamic banks. Furthermore, the findings were found to be statistically insignificant with p value 0.145>0.050 as shown in table 4.8.
Table 4.6: Correlation Between Exchange Rate and Financial Performance

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Financial Performance</th>
<th>Exchange Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>-.221</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.145</td>
</tr>
<tr>
<td>Sum of Squares and</td>
<td>36.950</td>
<td>110.917</td>
</tr>
<tr>
<td>Cross-products</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Covariance</td>
<td>1.945</td>
<td>5.838</td>
</tr>
<tr>
<td>N</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

4.4.3 Regression Between Exchange Rates and Financial Performance in Islamic banks.

Additionally, a regression analysis was performed between exchange rate and parameters of financial performance and it was found out that the R squared value was .135 hence only 13.5% of the variation in return on asset (ROA) of Islamic banks was explained by the variations in the exchange rates. The p value was 0.111 and therefore statistically significant as indicated in table 4.9.

Table 4.7: Regression Between Exchange Rate and Financial Performance

<table>
<thead>
<tr>
<th>Model Summary</th>
<th>Parameter</th>
<th>Estimates</th>
<th>R Square</th>
<th>F</th>
<th>df1</th>
<th>df2</th>
<th>Sig</th>
<th>Constant</th>
<th>b1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linear</td>
<td></td>
<td></td>
<td>.135</td>
<td>2.815</td>
<td>1</td>
<td>18</td>
<td>.111</td>
<td>2.194</td>
<td>-.045</td>
</tr>
<tr>
<td></td>
<td>a. Predictors: (Constant), Exchange Rate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The regression model becomes:

\[ Y = 2.194 - 0.045X_3 \]

The Y intercept, 2.194 represents the units of performance when there is no exchange rate. The gradient or slope is -.045, hence, with a one unit increase in exchange rate, the expected change in financial performance, ROA, is a decline of .045 units

4.5 Effect of Money Supply on Financial Performance of Islamic Banks

4.4.1 Descriptive Statistics on Effect of Money Supply on Financial Performance
The findings on money supply revealed that the mean money transfer (including both M1 and M2) was 1515.672 with a standard deviation of 261.32. The minimum and maximum volumes of money supplied stood at 1801.78 maximum, 734.12 minimum. The measures of dispersion were represented with a skewness of -1.43 and kurtosis of 2.81.

**Table 4.8: Descriptive Statistics on Effect of Money Supply (M3)**

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>Minimum Statistic</th>
<th>Maximum Statistic</th>
<th>Mean Statistic</th>
<th>Std. Deviation Statistic</th>
<th>Skewness Statistic</th>
<th>Kurtosis Statistic</th>
<th>Std. Error Statistic</th>
<th>Std. Error Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Money Supply</td>
<td>734.12</td>
<td>1801.78</td>
<td>1515.67</td>
<td>261.324</td>
<td>-1.435</td>
<td>2.810</td>
<td>.512</td>
<td>.992</td>
</tr>
</tbody>
</table>

### 4.5.2 Correlation Analysis Between Money Supply and Financial Performance

Lastly, the researcher aimed to establish the correlation between money supply in the economy and financial performance of Islamic banks. The findings suggested a weak positive correlation of .407 depicting a direct relationship between money supply and financial performance. Moreover, the findings were statistically significant with p value 0.025<0.050. As a consequence, Islamic banks were likely to experience a favourable financial performance when the level of money supply in the economy was relatively high. The findings are illustrated in table 4.11 below:

**Table 4.9: Correlation Analysis Between Money Supply and Financial Performance**

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Financial Performance</th>
<th>Money Supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.407**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.025</td>
</tr>
<tr>
<td>Sum of Squares and Cross-products</td>
<td>36.950</td>
<td>2815.802</td>
</tr>
<tr>
<td>Covariance</td>
<td>1.945</td>
<td>148.200</td>
</tr>
<tr>
<td>N</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

### 4.5.3 Regression Between Money Supply and Financial Performance of Islamic banks.
A regression analysis was performed between money supply and indicators of financial performance and it was found out that the R squared value was .165 hence only 16.5% of the variation in return on asset (ROA) of Islamic banks was explained by the variations in the money supply. The p value was 0.045 and therefore not significant as indicated in table 4.12.

Table 4.10: Regression Between Money Supply and Financial Performance

<table>
<thead>
<tr>
<th>Model</th>
<th>R Square</th>
<th>F</th>
<th>df1</th>
<th>df2</th>
<th>Sig</th>
<th>Parameter</th>
<th>Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linear</td>
<td>.165</td>
<td>2.815</td>
<td>1</td>
<td>18</td>
<td>.045</td>
<td>Constant</td>
<td>1.397</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>b1</td>
<td>.020</td>
</tr>
</tbody>
</table>

The regression model becomes;

\[ Y = 1.397 + 0.020X_4 \]

The Y intercept, 1.397 represents the units of performance when there is no money supply. The gradient or slope is +.020, hence, with a one unit increase in money supply, the expected change in financial performance, ROA, is an increase of .020 units.

4.6 Financial Performance (ROA) of Islamic Banks

The graph in figure 4.3 illustrates the quarterly financial performance of First Community Bank for the period of 2013 to 2017. The highest performance was recorded in the first quarter of 2016 while the lowest performance was experienced in the third quarter of 2014 as depicted in the figure 4.3. Generally the performance has been characterised with ups and down for the 5 year period of the study.

The computation of ROA was arrived at by dividing the banks total net income by the total asset per given quarter. ROA captures the fundamentals of business performance and operating capability in a holistic way, leakages of earnings through both payments to capital, and the final return to equity holders. We assume that, profits that are available to shareholders are a fixed function of the firm’s total asset base. Where, an organization is working at full capacity and effectively utilizing other factors of production, then, ROA will measure its surplus operational capacity. The model also assumes that this base surplus operating capacity will be modified by the general level of economic activity.
Chapter Summary

The chapter has provided the statistical analysis of research data obtained from the financial reports and publications on ROA, interest rate, exchange rate, economic growth, and money supply. Microsoft Excel and SPSS were the main tools of data analysis. Both descriptive and inferential statistics have been provided, in response to the specific study objectives as discussed in the first chapter of the project. The next chapter provides discussion, conclusion and recommendations of the study findings.

Figure 4.3: Financial Performance, ROA

4.7 Chapter Summary

The chapter has provided the statistical analysis of research data obtained from the financial reports and publications on ROA, interest rate, exchange rate, economic growth, and money supply. Microsoft Excel and SPSS were the main tools of data analysis. Both descriptive and inferential statistics have been provided, in response to the specific study objectives as discussed in the first chapter of the project. The next chapter provides discussion, conclusion and recommendations of the study findings.
CHAPTER FIVE

5.0 DISCUSSION CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary, discussion and conclusion of the data findings on the effect of macroeconomic variables on the financial performance of Islamic bank for the five year duration, 2013-2017. The conclusions and recommendations are drawn there to. The chapter is therefore structured into summary of findings, conclusions, recommendations and areas for further research.

5.2 Summary of the Study

The objective of the study was to investigate how macroeconomic variables affect the financial performance of Islamic banks in Kenya over a five year duration of 2013-2017. Specifically, the study sought to address: To investigate the effect of exchange rate changes on financial performance Islamic banks in Kenya. To investigate the effect of economic growth rates (real gdp) on financial performance Islamic banks in Kenya. To investigate the effect of exchange rates on financial performance Islamic banks in Kenya. To investigate the effect of money supply on financial performance Islamic banks in Kenya.

A case study form of research design was employed in conducting the study. In essence, the population of the study consisted of First Community Bank, whereby the researcher focussed on secondary type of data which was obtained from the quarterly financial reports. In total, there were five years hence twenty equally distributed quarters. Data analysis was performed immediately after collection of the same. It was done with help of the Microsoft Excel and the SPSS Version 22.0. The purpose of analysing data was to make it more coherent, sensible and hence bringing out meaning in a simple manner. Moreover, the data analysis was broken down into two major categories; descriptive and inferential. Data was then presented in the form of tables and charts. Inferential statistics concentrated on conducting the multiple regression based on the research’s model equation. The model assisted in the approximation of the effect of macroeconomic variables, that is, the independent variables; interest rate, exchange rate, money supply and economic growth.

A correlation analysis was conducted to establish the effect of interest rate on financial performance of Islamic banks and obtained a statistically significant value of p-value 0.007<0.05. The results of the regression suggested that interest rate had a significant effect on
the financial performance of Islamic banks (R2= .186, F=4.126, p<.05). The predictor variable indicated that 18.6% of variance in financial performance was due to market interest rate.

A correlation analysis was conducted to establish the effect of economic growth on financial performance of Islamic banks and obtained a statistically significant value of p-value 0.003<0.05. The results of the regression suggested that economic growth had a significant effect on the financial performance of Islamic banks (R2=.377, F=10.906, p<.05). The predictor variable indicated that 37.7% of variance in financial performance was due to economic growth.

A correlation analysis was conducted to establish the effect of exchange rate on financial performance of Islamic banks and obtained a statistically insignificant value of p-value 0.145>0.050. The results of the regression suggested that exchange rate had a significant effect on the financial performance of Islamic banks (R2=.135, F=2.815, p>.05). The predictor variable indicated that 13.5% of variance in financial performance was due to exchange rate fluctuations.

A correlation analysis was conducted to establish the effect of money supply on financial performance of Islamic banks. The findings suggested a weak positive correlation of .407 depicting a direct relationship between money supply and financial performance. Moreover, the findings were statistically significant with p value 0.025<0.050. The results of the regression suggested that money supply had a significant effect on the financial performance of Islamic banks (R2=.165, F=2.815 p<.05). The predictor variable indicated that 16.5% of variance in financial performance was due to money supply.

5.3 Discussion of the Study Findings

5.3.1 Effect of Interest Rate on Financial Performance of Islamic Banks

The study established a weak positive correlation of (+0.532) between interest rate changes and the financial performance of Islamic banks as illustrated in table 4.5 of Chapter four. This means that interest rates affects bank’s income directly. However, it is relevant to note that Islamic banking prohibits interest rates under the Sharia law. In this case, interest impacts on higher profitability of Islamic banks since the Islamic products invested on mutual relationship by the partners in the Islamic banks recoup higher returns when the general market interest is favourable.
This findings seem to agree with Kader and Leong (2009) who asserts that rising market interest rates would increase the cost of conventional loans hence inducing new customers to opt for the relatively cheaper BBA financing. The reverse occurs when interest rates are falling. Such substitution effect implies that Islamic banks are exposed to interest rate risks even though operating on interest-free principles. It is important to understand this phenomenon because a negative consequence if not mitigated, would jeopardize the growth of Islamic banks which are the new comers in the dual banking system.

These results are also in agreement to the previous study by Adebola et al. (2011) but in contradiction to many studies like Rosly and Abubakar (2003). Theoretically, Islamic bank financing, being the substitute for conventional bank lending, is supposed to have a positive cross price elasticity with the conventional bank lending (other things remaining the same), and there should be a positive relationship between the two variables, however, Islamic banks like any other financial institution are very responsive to the changes in the market, and as Islamic banks now have floating/ variable rate financing instruments like Ijarah, Musharakah etc., they can easily adjust their profit rates according to any changes in conventional banks’ interest rate which in return effects the overall financing volume negatively.

It is relatively useful to distinguish the effect of interest rate on Islamic and conventional banks. The variation of interest rates in global credit markets is an essential concern among the financial institutions as to trigger precise valuation and management of interest rate risk. If this interest rate risk is sufficiently large (volatility in interest rate setting gets larger) and financial institutions lose its bet, hence, eventually may lead to insolvency. In general, the net return income from financing activities represents the main source of income for commercial banks. Hence, the change in benchmark rate can affect the Islamic banks earning in the way that it disturbs the net return income and the level of other return-sensitive income and the operating expenses as well.

As opined by Ngugi (2011) the Central Bank of Kenya (CBK) is the major government institution tasked with managing money circulation, value and policy. Section 36 (4) of the Central Bank of Kenya Act stipulates that the Central Bank shall publish the lowest rate of interest it charges on loans to banks and that rate shall be known as the Central Bank Rate (CBR). The level of the CBR is reviewed and announced by the Monetary Policy Committee.
(MPC) at least every two months and its movements, both in direction and magnitude, signals the monetary policy stance (International Monetary Fund, 2011).

The interest rate capping by the Kenyan government in 2016 had dire consequences on bank’s profitability, both Islamic and conventional. Since Islamic banks also trade in debt instruments such as sukuk, incase the banks had issued such bonds before the government effected the interest rate capping, the traders sought to loose. Recalling that the trading partners might have locked into lower rates with expectations of ‘future rising’ of interest, the abrupt fall of the same makes the sukuk investment unprofitable. As a result, capping of interest rates was not so good for sukuk issuance in the recent years.

The study results are further supported by findings obtained by Wanjare and Motari (2016). The duo sought to establish whether such market interest rate fluctuations directly or indirectly affect the profitability of the Islamic banks. The study adopted a longitudinal survey design in which the banks’ financial data and the average central bank rates (CBR) over a five-year period (2009-2013) were analyzed. The study concluded that there is a positive relationship between the market interest rate changes and profitability of Islamic banks in Kenya.

5.3.2 Effect of Economic growth on Financial Performance of Islamic Bank

In this case, economic growth was measured in terms of real gdp. The study reported a fairly strong positive Pearson Correlation of 0.637 between Gross Domestic Product (GDP) and profitability of Islamic banks in the measure of return on asset (ROA). However, this relationship is insignificant. GDP may be represented by the country’s income; a high GDP will bring more profit to Islamic banks. Although the result shows that the relationship is insignificant, but economic growth and GDP may still bring an effect to the profitability of banks. The same relationship has also been reported by Molyneux and Thornton (1992) and Teng, Wei, Yong, and Siew (2012). This therefore means that growth in the economy will lead to growth in the demand and supply of funds from banks which in turn lead to higher profitability. Strong economic conditions also characterized by the high demand for financial services, thereby increasing the bank's cash flows, profits and non interest earnings. Thus there is a positive relationship between the growth rates of Gross domestic product and the profitability of the bank. Mustafa and Ali (2013) solidifies this observation that gross domestic product growth has a positive and significant impact on Islamic banks profitability.
Kenya’s position as a dominant regional economic player has recently attracted heavy inflow of FDI through strategic partnerships. This could be observed through top notch global conferences such as the World Trade Organization and the Global Entrepreneurship Summit-both hosted by Kenya in its headquarters of Nairobi. Despite the political fever of prolonged electioneering period of 2017 to earl 2018, Kenyan economy has been promising. Undoubtedly, Kenya remains the destination to beat when it comes to ideal location for FDI. Infact, according to the periodic report by the CBK governor, approximately 9 foreign banks are now eying Kenyan market. Some of them run fully equipped Islamic banking model. As a result, there are greater economic prospects ahead which would catapult the growth of local banking market.

The findings also supports previous work by Illo (2012) who conducted a study on effect of macro-economic factors on financial performance of commercial banks in Kenya. The study use ROA which was regressed against the macroeconomic variables including GDP growth rate, exchange rate (US dollar) the money supply (M3), inflation (CPI), and lending rate of the selected commercial banks. Additionally, the study established that financial performance of Kenyan based commercial banks registered a positive relationship with the country’ economic growth. Sufian and Habibullah (2010) point out that the GDP is expected to influence numerous factors related to the supply and demand for loans and deposits. Favourable economic conditions will affect the demand and supply of banking services positively. Bank's growth and profitability is limited by the growth rate of the economy. If the economy is growing at a good rate, a soundly managed bank would profit from loans and securities sales.

The study also draws similarities with Aurang’s findings who researched the effect of commercial bank borrowing on economic growth in China and established that there was a bidirectional causal relationship between deposits, advances and profitability and economic growth (2012). A study conducted by Bashir (2010) examined the impact of economic environment on the performance of Islamic banks in the Middle East. The study established a positive relationship between Islamic bank’s performance with gross domestic product, gdp. The results also indicate foreign owned Islamic banks are likely to be profitable.

To emphasize, the economic environment might have been negatively impacted by the recent high political temperatures, there is still hope for investors and particularly in the banking
sector that the situation will soon normalize. Programmes and new governance frameworks such as devolution are likely to propel the economy in a desired direction.

5.3.3 Effect of Exchange Rate on Financial Performance of Islamic Bank

The study sought to establish the effect of exchange rate on the financial performance of Islamic banks in Kenya. The research findings showed a negative Pearson Correlation of .221 depicting an inverse relationship between movements in the exchange rate and financial performance of Islamic banks. Currency exchange rates can be just as volatile, and this clearly poses risks to any enterprise conducting business in foreign markets and any investor holding either stock in a foreign-based company or an interest in a mutual fund that invests in foreign companies. The effects on a bank’s earnings, cash flow, and balance sheet can be significant.

The main exchange rate risk to an operation or investment is that any profits realized was partially reduced or wiped out altogether when they are exchanged for the domestic currency, be it US Dollars, Sterling Pounds, the Euro, or Japanese Yen. Ndungu (2010) asserts that exchange rate policy in Kenya has undergone various shifts mostly driven to a large extent by the economic events especially balance of payment crisis.

The Kenyan USD exchange rate was observed to have really increased over time thus the high volatility over time. The exchange rate was volatile for the entire study period and generally exhibited a depreciating and volatility trend, implying that in general, the country’s international competitiveness had deteriorated over the study period. The Kenyan currency has simply been losing to the US dollar over the entire study period. This has negatively influenced the Kenyan economy by making the cost of living expensive since the country heavily relies on imports. The findings however agree with Owoeye, and Ogunmakin (2013) who observed through their study model that the impact of exchange rate on bank performance was sensitive to the type of proxy being used for bank performance.

On the contrary, this findings disagree with study conclusions by Kipchirchir (2011) that there is a strong positive relationship between financial performance for multinational corporations in Kenya and exchange rates volatility. This was attributed to the differences between trading currency and financial reporting currency. The study concentrated on the effects of foreign exchange fluctuation on the financial performance of banks.
Depreciation of Kenyan shilling against United States Dollar is expected to decrease bank profitability. This kind of currency depreciation could be as a result of converting financial statements which are expressed in foreign currencies into the home currency. Lessard (2009) states that when a firm consolidates the results of all its foreign subsidiaries, it has to present a final report to shareholders with the numbers being expressed in one currency. All foreign currency denominated assets and liabilities as well as revenues and costs have to be translated into one basic currency. Nonetheless, given the degree of foreign exchange risk revealed in this study, corporate managers and investors in Kenya should endeavour to apply a combination of simple tools such as the use of forward contracts and swaps to supplement price adjustments and investment in foreign currency in order to minimize their exchange rate risk.

Lastly, the findings affirms observation by Ebaidalla (2014) examined real exchange rate misalignment and economic performance in Sudan. The study investigates the behavior of equilibrium exchange rate and real exchange rate misalignment in Sudan over the period 1979–2009. In addition, the impact of real exchange rate misalignment on economic performance is examined. The empirical results show that the equilibrium exchange rate is significantly influenced by economic policy variables such as trade openness, government expenditure and taxes. The results also reveal that the Sudanese economy exhibited an exchange rate overvaluation over the period under consideration.

5.3.4 Effect of Money Supply (M3) on Financial Performance of Islamic Bank

The study found a weak positive correlation of .407 depicting a direct relationship between money supply and financial performance of Islamic banks. Hence, the more loans and advances they extend to borrowers, the more the profit they make. When Gok fixed interest rates at relatively low levels, that is, 14.0%, was done mainly to promote investment and growth. Occasionally, special deposits were imposed to reduce the amount of excess reserves and credit creating capacity of the banks. According to Onouorah et al. (2011), monetary policy is a deliberate attempt by the monetary authority (Central Bank) to control the money supply and credit condition in the economy so as to achieve certain economic objective. Some of the macroeconomic objectives include price stability, full employment, sustainable economic growth, balance of payment equilibrium. The monetary instruments include bank rate, open market operation, reserve requirements etc. For
instance, the use of cash reserve ratio affects the level of liquidity in the commercial banks. When commercial banks are faced with limited liquidity, they turn to other commercial banks for inter-bank borrowing. Those funds are borrowed at the CBR and it is usually very high, which affects the interest expense for the borrowing bank and the interest income for the lending bank. The other way to increase liquidity in the bank was to borrow by floating a debt instrument. The rate offered for the debt instrument is also tied to the treasury bills or treasury bonds issued by the government through the Central Bank. These effects of the monetary tools are expected to have an effect on the financial performance of commercial banks.

In the short run, changes in the demand for money resulting from movements in output, interest rates or liquidity preferences will be satisfied by banks. However, over more protracted horizons, banks will adjust the supply of money and credit as well as bank interest rates in accordance with their business strategy. Improvements to the intermediation process, for instance, owing to changes in banks’ access to funding, will ease financing conditions for households and firms. This can be reflected in lower lending rates, more attractive non-price elements of loan contracts, such as higher loan-to-value ratios, and ultimately enhanced availability of credit.

Economic activities are not directly affected by monetary policy instruments; they work through their effects on the financial markets. It affects economic activities through its effects on available resources in the banking sector. By manipulating these instruments, central banks affect the rate of growth of the money supply, the level of interest rate, security prices, credit availability and liquidity creation from the aid of commercial bank. These factors, in turn can exert monetary imbalances or shocks on the economy by influencing the level of investment, consumption, imports, exports, government spending, total output, income and price level in the economy.

Ajayi and Atanda (2012) provided empirical evidence to support the effect of monetary policy changes on loan supply of less liquid banks, deposit base and induce banks’ ability to perform their expected roles within the financial system. Money supply influences liquidity to some given extent. The literature by Zulfiqar and Anees (2012) indicates that liquidity risk significantly affects the profitability and therefore the financial performance of Islamic banks. Liquidity of any institution determines the source of internal financing which is more attractive
than external sources of financing since it is costless compared to external sources of fund (Sheikh & Wang, 2011b).

Whereas, Sudin and Wan (2008) study investigating the impact of selected economic variables on deposits level in the Islamic and conventional banking systems in Malaysia found recent econometric rates of profit of Islamic bank, rates of interest on deposits of conventional bank, base lending rate, Kuala Lumpur composite index, consumer price index, money supply and gross domestic product have different impact on deposits at both Islamic and conventional banking systems. In this regard, an appropriate analysis of monetary shock transmission mechanisms is of crucial importance for central banks. This is to determine the process through which monetary policy influence the entire economy within the financial system framework.

5.4 Conclusion

In order to fulfil the specific objectives, the study employed the use of quarterly data obtained from The FCB financial statements, CBK and KNBS. The period of study started with 2013 and extended to the year 2017. The analysis of the quantitative secondary data was performed using SPSS software package Version 22.0. The independent variables which made up the macroeconomic variables were interest rate, exchange rate, economic growth (gdp), and money supply (M3) while the dependent variable consisted of financial performance which was expressed in terms of Return on Assets, ROA. The four specific research objectives included:

5.4.1 To Investigate The Effect of Interest Rate Changes on Financial Performance of Islamic Banks.

The study established a positive correlation between interest rate and financial performance of Islamic banks. Though it is widely believed that Islamic banks do not charge interest, they operate within an environment characterised with interest rate uncertainties. As a result, in one way or the other, Islamic bank’s products are affected by the fluctuations in the interest rates. Therefore, it is sensible to conclude that there exists a positive relationship between interest rates and financial performance of Islamic banks.

5.4.2 To Investigate The Effect of Economic Growth on Financial Performance of Islamic Banks.
The findings further suggested a positive correlation between economic growth; measured in term of real GDP. For the study period, it can be asserted that the ups and downs in the quarterly economic growth had a direct bearing on the financial performance of Islamic banks. That is to say, whenever the country experienced increased economic activities, there was increased lending and borrowing, pushing the marketability curve for bank’s products upwards. In return, the bank is able to generate higher profits. The converse is true.

5.4.3 To Investigate The Effect of Exchange Rate Changes on Financial Performance of Islamic Banks.

The findings revealed a negative correlation between exchange rate and financial performance among Islamic banks in Kenya. In essence, variations in foreign exchange rates directly or indirectly impacts on the liquid assets held by banks in the domestic market.

5.4.4 To Investigate The Effect of Money Supply on Financial Performance of Islamic Banks.

The study also established a positive correlation between Money Supply (M3) rates and financial performance (ROA) of Islamic banks in Kenya. The volume of money circulation solely depends on the directives; monetary policies taken by the Central Bank of Kenya. The monetary policies such as OMO, minimum cash reserves for Islamic banks can have a visible impact on the profitability of such banks.

In a nutshell, the study has met its objective of establishing whether macroeconomic variables affect the financial performance of Islamic banks. Based on the study findings, these variables jointly affect the financial performance of Islamic banks. For instance, whereas foreign exchange rate was found to affect books of the bank negatively; interest rate, economic growth, and money supply had a positive influence.

5.5 Recommendations

Based on the study findings, the researcher came up with the following recommendations which might assist in limiting the unwanted consequences of macroeconomic variable uncertainties;

5.5.1 Suggestions for Improvement

5.5.1.1 To Investigate The Effect of Interest Rate Changes on Financial Performance of Islamic Banks.
Although interest rate is not factored in the model of Islamic banking, its influence is unavoidable. Therefore, traders and investors should assess the possible impact of interest rate variations on the individual financial assets by Islamic banks. This is because interest rate could save as a great guide in forecasting asset future value and help traders in gauging if it is worthwhile to invest in such portfolios. Diversification of financial assets by Islamic banks could also serve as a strategy to cushion unanticipated interest rate movements.

5.5.1.2 To Investigate The Effect of Economic Growth on Financial Performance of Islamic Banks.

After a lengthy electioneering period of 2017-2018, it is now time for Kenya to settle and let market players and stakeholders build the market. There is also need for the government to strengthen the capacities of all financial institutions, ad more so the regulator including the capital markets, the securities exchange inorder to have not too restrictive policies that make it hard for banks to conduct business with easy.

5.5.1.3 To Investigate The Effect of Exchange Rate Changes on Financial Performance Of Islamic

There is need to craft implementable fiscal and monetary policies which could see stability in the foreign exchange market. Some of the measures we have had in the past seem not so effective in combating the dire shocks of foreign exchange fluctuations.

5.5.1.4 To Investigate The Effect of Money Supply on Financial Performance of Islamic

The researcher suggests that financial players should expound the scope by including other actors in the sector. This will help broaden and increase the number of participants in the money market hence chances of improved money transactions.

5.5.2 Recommendations For Further Studies

It would be interesting if future studies were extended to include the whole of banking sector and not just Islamic banks. Moreover, conducting a study in other financial subsectors such as MFIs, Saccos, and DTMs would be appropriate specifically in deriving comparison reasons.
Alternatively, future researchers could replicate the study but consider other methods of analysis such as GARCH model, ARCH model, VAR model, Cointegration analysis among other models and try to establish if the results would be different.

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## APPENDIX I: DATA COLLECTION SHEET

<table>
<thead>
<tr>
<th>Year</th>
<th>Quarter</th>
<th>ROA</th>
<th>Economic Growth Rate (Real GDP)</th>
<th>Weighted Bank Lending Rate</th>
<th>Exchange Rate (USD/KSH)</th>
<th>Money Supply (M3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>Q1</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Q2</td>
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<td>Q3</td>
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<td>Q4</td>
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<tr>
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<td>Year</td>
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<td>2015</td>
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<tr>
<td>2017</td>
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</tbody>
</table>
APPENDIX II: BANKS OFFERING ISLAMIC BANKING

1. First Community Bank Limited
2. Gulf African Bank
3. Sharjah Islamic Bank
4. Dubai Bank of Kenya
5. Bank of India Kenya
7. Habib Bank
8. Standard Chartered Bank
9. Chase Bank
10. Kenya Commercial Bank
11. Barclays Bank of Kenya
12. National Bank

### APPENDIX III: QUANTITATIVE SUMMARY OF STUDY VARIABLES

<table>
<thead>
<tr>
<th>Quarter</th>
<th>GDP  (Billion USD)</th>
<th>M3  (Billion USD)</th>
<th>Exchange Rate</th>
<th>Interest Rate</th>
<th>ROA  Net Profit/Total Assets</th>
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<tbody>
<tr>
<td>2013Q1</td>
<td>3.3</td>
<td>1270.1</td>
<td>76.95</td>
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