EFFECTS OF SELECTED MONETARY POLICIES ON LOANS PORTFOLIO PERFORMANCE AMONG COMMERCIAL BANKS IN KENYA

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EGERTON UNIVERSITY

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DECLARATION AND APPROVAL

DECLARATION

This Project Report is my original work and has not been submitted to any institution of higher learning for any award of a degree.

Signature:……………………………… Date:……………………………………………

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RECOMMENDATION

This Research Project has been submitted for examination with my approval as the university supervisor.

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DEDICATIONS

This Project Report is dedicated to my parents, sisters, brothers and friends for their concern and encouragements throughout my studies.

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ABSTRACT

Commercial banks are very important in an economy as they mobilize savings for productive investments and facilitating capital flows to various sectors in the economy, thus, stimulating investments and increase productivity. Their operations are guided by monetary policy actions under central bank directives. Currently banks charge 18 per cent, as per Central Bank of Kenya data, with some borrowers paying as high as 24 per cent for short- to medium-term loans contrary to the policy actions. Pleading with banks to lend at lower rates in the recent past has, however, not borne fruit, leaving the lenders to charge borrowers high and arbitrary rates that have only invited legislative action from Parliament to Capping interest rates. This study sought to determine the effects of selected monetary policies on loans portfolio performance among commercial banks in Kenya. The study specifically determine the effects of open market operations, central bank rate, minimum reserve requirements and Kenya bankers' reference rate on loans portfolio performance among commercial banks in Kenya. The findings of the study will be important to policy makers, commercial banks and scholars. The study targeted 30 commercial banks and used 30 credit officers, one from each bank to collect data. This study adopted a descriptive survey design and employed census in the selection of respondents. The study used questionnaires to gather primary data from the respondents and secondary data sheet to collect secondary data. Reliability test of the instruments was done using Cronbach alpha coefficient. The statistical package for social sciences (SPSS) version 20 was used to generate both descriptive and inferential statistics. Analysis of data was done using descriptive statistics specifically mean, standard deviation, percentages and frequencies. The processed data was presented using tables. Phi and Cramer's V was then performed to establish the strength of relationship between the independent variables and the dependent variable and Chi-square was used to test for the significance of each predictor variables in the model at 0.05 (significance level) and also multiple regression was also done in order to establish the nature of the relationship between open market operations, central bank rate, minimum reserve requirements and Kenya bankers' reference rate. The findings of the study showed that there was no significant relationship between open market operations, central bank rate, Kenya bankers' reference rate and loans portfolio performance. The study recommended that central banks should re-evaluate the policies governing open market operations especially outright transactions and reserve transactions, that central bank should continue to improve their monitory policies and should continue to train staff to the highest expertise. The study also recommended that central bank rate and minimum reserve should be reduced and much with the prevailing inflation rate. It is necessary that further study be done on the effect of open market operations on loans portfolio performance among commercial banks.

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LIST OF ABBREVIATIONS

BIS   -   Basel Committee in Banking Supervision

BLR   -   Bank Lending Rate

CBK   -   Central Bank of Kenya

CBR   -   Central Bank Rate

CBs   -   Commercial Banks

CRR   -   Cash Ratio Requirements

FIS   -   Financial Institutions

IDs   -   Institution Developments

IMF   -   International Monetary Policy

IR   -   Interest Rates

KBRR   -   Kenya Banks Reference Rate

KCB   -   Kenya Commercial Bank

LCR   -   Liquidity Coverage Ratio

LP   -   Loan Portfolio

MMR   -   Monetary Market Rate

MRR   -   Minimum Reserve Requirement

NBFIs   -   Non-Bank Financial Institutions

NPLs   -   Non-Performing Loans

OMOs   -   Open Market Operations

SF   -   Standing Facilities

SPSS   -   Statistical Package for Social Sciences

SSA - Sub-Saharan Africa

SSR - Sub-Saharan Region

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Monetary policy encompasses any policy designed to influence the level of economic activity by influencing the supply and demand or the cost of money. Monetary policy ensures stability of prices, interest rates and exchange rates. This protects the purchasing power of the Kenyan shilling and promotes saving, investment and economic growth. Through monetary policy, the economy creates conditions that allow for increased output of goods and services in the economy, thereby improving the living standards of the people. Achieving and maintaining a low and stable lending rate together with adequate liquidity in the market leads to; improved economic growth, higher real incomes and increased employment opportunities (Janet, 2012). Monetary policy is therefore; designed to support the government's desired economic activity and growth as well as employment creation. The monetary authority uses monetary instruments to conduct monetary policy operations in a monetary targeting framework that are deemed to have implications for bank loans portfolio performance. These monetary policy tools of operation include;

First, the Open market operations which are the primary monetary policy instruments for promoting economic growth and other policy goals and is used by CBK through purchases and sales of eligible government securities to regulate the money supply and the credit conditions in the economy. Open market operations can also be used to stabilise short-term interest rates. The buying and selling of government securities influences the interest rates and the supply of money and credit. In conducting open market operations the central bank uses a number of different techniques ranging from outright transactions and reverse transactions (CBK, 2014). Outright operations are normally associated with the management of an "outright asset portfolio", which often mirrors the long-term trend increase in the issuance of currency in circulation. When the Central Bank buys securities on the open market, it increases the reserves of commercial

banks, making it possible for them to expand their loans which increase the money supply (Weller, 2009).

Secondly, the central bank rate which is the basis for the central bank of Kenya to provide secured loans to commercial banks on an overnight basis. The rules governing the operation of the CBK discount window are reviewed from time to time by the Bank. Currently, banks utilising the CBK Overnight Window are charged the CBR plus a high penalty. Moreover, banks making use of this facility more than twice in a week are scrutinised to establish whether prompt corrective action is required to address any weakness that is not merely temporary (CBK, 2014). Central bank interest rate cuts, is aimed at establishing an appropriate atmosphere to reinforce growth in the national economy by reducing credit costs. When the central bank raises interest rates, banks react by increasing their lending rates, making borrowing harder thus affecting mortgage rates, car loans, business loans and other consumer loans.

Thirdly, the minimum reserve requirement which the central bank uses in controlling the money supply (Contessi, 2013). In Kenya, banks are required to hold an amount of funds in reserve against special deposit liabilities in the form of vault cash or deposits with the central Bank. Every bank needs to maintain a certain balance in its reserve account to meet requirements arising out of; the need to maintain CRR, to invest in government securities, for settlement of inter-bank obligations and for precautionary reasons (Chowdhury, 2012). The ratio is currently 5.25 percent of the total of bank's domestic and foreign currency deposit liabilities. A reduction in the CRR releases reserves thus enhancing the capacity of commercial banks to expand credit.

Finally, the Kenya bankers' reference rate which is taken into account when dealing with variables like investment, consumption and unemployment. A higher percentage of revenues generated by banks come from interest income on lending. The central banks generally tend to reduce this bench mark rate when it wishes to increase investment and consumption in the country's economy. However, a low interest rate as a macro-economic policy can be risky and may lead to the creation of an economic bubble, in which large amounts of investments are poured into the real-estate market and stock market.

Interest-rate adjustments are thus made to keep economic variables within a target range for the health of economic activities or cap the interest rate concurrently with economic growth to safeguard economic momentum (Ngumo, 2012).

These monetary policy tools are viewed by the industry players and the general public to have less influence on the transmission mechanisms to control the operations of the banking sector since it was liberalized in the last decade. It is estimated that 80 percent of Kenyans are locked out of borrowing as a result of rising interest rates on loans. The high cost of borrowing lead to legislative action that resulted to the introduction of the Donde bill of 2000. The bill sought to have the government rein in interest rates that banks could charge their customers. The bill argue that at 24 percent, the interest rates charged by the banks had made borrowing out of reach of many Kenyans and businesses were failing after banks moved in to auction them for failure to service loans due to the high interest rates. Industry players in the country welcomed the bill, saying that it would form part of recovery efforts the country needed to kick start the economy (CBK, 2000).

1.1.1 Monetary policy in Kenya

Kenya's monetary system has undergone reforms since the establishment of central bank of Kenya in 1966 aimed at achieving; stability so as to ensure that banks' and other financial institutions taking deposits can safely handle the public's savings and ensure that the chances of a financial crisis are kept to a minimum; efficiency in the delivery of credit and other financial services to ensure that the costs of services become increasingly affordable and that the range and quality of services better cater to the needs of investing businesses; and improved access to the financial services and products for a much larger number of Kenyan household (Mwega, 2014). Commercial banks in Kenya cater for the above needs by developing an array of new financial instruments and techniques to adopt the ever changing environment influenced by monetary policy (Njanike, 2009). These products include loans portfolio which varies from one banking institution to another as they offer wide ranges of financial services. These loans are the principal economic functions of commercial banks in Kenya and account for half or more of their total assets and about half to two thirds of their revenues (Hudgins, 2005). Bank Loans are greatly

affected by monetary actions, which tend to be concentrated in the loans portfolio, and can cause serious financial problems for banks.

1.2   Statement of the Problem

Commercial banks operations are exposed to controls from the central bank of Kenya, which underpins its monetary policy strategy through open market operations, central bank rate, minimum reserve requirements and Kenya bankers' reference rate to affect interest rates and the volume of credit expansion. According to the central bank of Kenya, these monetary policy actions have been defied by banks as they charge high interest rates contrary to policy directives. Currently banks charge 18 per cent, with some borrowers paying as high as 24 per cent for short- to medium-term loans. Dr Njoroge, the central bank governor agrees that lending rates are too high and that banks should be persuaded to lower them. He argues that large banks have been cited as the least cooperative in the quest to reduce the cost of loans. Pleading with banks to lend at lower rates in the recent past has, however, not borne fruit, leaving the lenders to charge borrowers high and arbitrary rates that have only invited legislative action from Parliament to Capping interest rates. Monetary policy studies have been done in relation to banking in Kenya, but there is no record available to this study on the effects of monetary policy on loans portfolio performance in Kenya. Ndirangu and Nyamongo (2015) investigated the effect of financial innovation on monetary policy in Kenya during the period 1998–2013. Results obtained showed that the fast pace of financial development in Kenya has not caused structural shifts in the long-run money demand relation. Were (2014) investigated the empirical analysis of monetary policy reaction function in an emerging African market economy. The empirical results showed a strong effect of interest rate smoothing and support the fact that monetary policy was accommodative of the output growth objective. These studies clearly show that there exists a gap in literature with regard to effects of monetary policy on loans portfolio performance among commercial banks in Kenya.

1.3 Objectives of the Study

The general objective of the study was to determine the effects of selected monetary policies on loans portfolio performance among commercial banks' in Kenya.

1.3.1 Specific Objectives

i. To determine the effects of open market operations on loans portfolio performance among commercial banks in Kenya.
ii. To establish the effects of central bank rate on loans portfolio performance among commercial banks in Kenya.
iii. To establish the effects of minimum reserve requirements on loans portfolio performance among commercial banks in Kenya.
iv. To determine the effects of Kenya bankers' reference rate on loans portfolio performance among commercial banks in Kenya.

1.4 Research Hypotheses

$H_0 1$: open market operations have no significant effect on loans portfolio performance among commercial banks in Kenya.

$H_0 2$: central bank rate has no significant effect on loans portfolio performance among commercial banks in Kenya.

$H_0 3$: minimum reserve requirements have no significant effect on loans portfolio performance among commercial banks in Kenya.

$H_0 4$: Kenya bankers' reference rate has no significant effect on loans portfolio performance among commercial banks in Kenya.

1.5 Significance of the Study

The significance of this study is to inform policy makers how monetary policy affect loans portfolio in the real economy. This would be instrumental in formulation of monetary policies, particularly choice of monetary policy instruments and timing of

monetary policy action. Commercial banks will gain from this study as it will help banks determine the likely impact of monetary policy on loans portfolio performance. The study will also add to knowledge on the area as it will suggest areas of further research so that future Scholars and academicians can pick these areas and study further.

1.6 Scope of the Study

Commercial banks support development plans through channelling funds for productive purpose, intermediating flow of funds from surplus to deficit units and supporting financial and economic policies of government. They lend in many areas or sectors of the economy and contribute to investments, employment creation, and by extension the process of economic growth. Their operations are regulated by central bank through monetary policy actions. The aim of this study was to look in the effects of selected monetary policies on loans portfolio performance among commercial banks in Kenya. The study focused on commercial banks headquarters and credit officers were chosen as the subjects of the study. The study collected data from all the chosen banks for the period between one and two months.

1.7   Limitations and Delimitations of the Study

Accessibility to information from respondents was one of the limitations faced during the study and to overcome this, the researcher was interested in views concerning the influence of monetary instruments on loans portfolio performance and not provision of sensitive information concerning the banks operations which are usually confidential. The researcher also assured the respondents of confidentiality of the information provided. The study was limited to four selected monetary instruments. Future research on monetary policy should cover all the monetary policy tools.

1.8   Operational Definition of Terms

Commercial bank: this is a financial institution providing loan services for businesses, organizations and individuals where interest is earned on the amounts lend. These loans are in form of products that form loan portfolio of banks.

Loan portfolio: the loans that a lender is owed and represents the total of all loans held by a bank or finance company on any given day. It comprises several loan products that are lend by banking institutions.

Monetary policy: this is the process by which the monetary authority of a country controls the supply of money. This is channelled through transmission mechanism that control banks operations so as to achieve a desired economic balance.

Lending rate: this is the rate of interest that you have to pay to a bank or other financial institution when you borrow money from them. This is borne to borrowers or beneficiaries of loan products from banks. Lending rates change from time to time as a result of monetary policy adjustments.

Bank lending: this is to prevision of money by bank temporary on the condition that the amount borrowed be returned, usually with an interest rate. Bank Lending is sometimes constrained by economic conditions which are attributed by changes in monetary policy actions.

Borrowing facility: this is where banks can borrow at any time against eligible collateral at the rate specified by the central bank, with overnight maturity. Banks usually borrow loans against assets from central bank and other banks so as to meet immediate obligations and expand their loans.

Reverse transactions: this is an operation whereby the central bank through banks sells assets under a repurchase agreement or conducts credit operations against collateral. This is done when the government aims at reducing money supply in the economy. This affects banks as it reduces reserves thus, constraining lending.

Outright transactions: this is a program under which the bank makes purchases of securities in the secondary market. This increases the supply of money in the economy thus increasing willingness to lend by banks due to increased reserves.

Marginal lending facility: this is where banks can sell certain short term paper to the central bank at any time, whereby the discount rate specified by the central bank is applied to calculate the price on the basis of the securities' cash-flows. This is done by banks to increase their reserves in order to meet their demand obligations and to expand lending.

Cash ratio: this is the minimum fraction of customer deposits and notes that each commercial bank must hold as reserves rather than lend out. They are normally deposits made with central bank. When the ratio rises it reduces reserves hence reduction in loan expansion.

Liquidity ratio: this is a reserve requirement that commercial banks are required to maintain in form of approved government securities before providing credit to the customers. When the ratio rises it reduces reserves hence reduction in loan expansion.

Kenya banks' lending rate: this is the base rate for all commercial and microfinance banks' lending. This rate affects credit advanced by banks hence, reducing loans portfolio when the rate is raised.

Open market operations: this is a primary monetary policy tool that involves the purchase and sale of eligible government securities to regulate the money supply and the credit conditions in the economy. When the Central Bank buys securities on the open market, it increases money stock in circulation thus, increasing commercial banks reserves, making it possible for them to expand loans.

CHAPTER TWO

LITERATURE REVIEW

2.1 Banking Regulations in Kenya

Banking in Kenya started prior to the establishment of colonial rule. There was a virtual lack of interest in or involvement with the African population. Throughout the advance period and into the first half of the 1960, Kenya's banking sector was dominated by the British banks. The first bank was the National Bank of India which was established in 1986. This bank is now known as Kenya commercial bank (K.C.B) and it was later joined by Standard Bank of South Africa in 1950, and now known as Standard Chartered Bank. There after the National bank of South Africa came into the country and later merged with two other British banks to form Barclays Bank of Kenya. Currently there are 43 licensed commercial banks and one mortgage finance company. Out of the 44 institutions, 31 are locally owned and 13 are foreign owned. The locally owned financial institutions comprise 3 banks with significant shareholding by the government and state corporations, 27 commercial banks and 1 mortgage finance institutions (Jemengich, 2011). These institutions are licensed and regulated by the central banks. Banking system in Kenya is regulated by the central bank of Kenya pursuant to the provisions of the Banking Act.

The central bank of Kenya (CBK) was established under the central bank act (CAP 481) of 1966. The act assigned to the CBK the statutory objectives to assist in the development and maintenance of sound monetary and credit, and banking system in Kenya, conducive to the orderly and balanced economic development of the country and the external stability of the currency among other functions. The CBK tended to underpin its monetary policy strategy with controls on interest rates and the volume of credit expansion by banking institutions as its operational targets, and monetary supply growth as its intermediate target. The operational targets are communicated to banks through guidelines issued from time to time (Douglas and Ambrose, 2013).

2.2 The Concept of Monetary Policy

Monetary policy evolved since the early nineteenth century although it had precedents in earlier centuries. The policy played a relatively minor role before 1914 although many of its tools and principles were developed then. More recently monetary policy in many countries returned back, but yet it is based on a fiat regime and the commitment of central banks to follow credible and predictable policies. Today monetary policy is the principle way in which both the developed and developing governments influence the macro-economy through monetary policy instruments (Michael, 2007).

The monetary policy in developed countries like; United States and the Euro area use monetary tools to reach its monetary objectives of price and interest rates stability. These instruments are; first, open market operations, Second, changing the terms and conditions for borrowing at the discount window and finally, adjusting reserve requirements ratios. The execution of open market operations (OMOs) in the open market is the most flexible means of carrying out its objectives. By adjusting the level of reserve balances in the banking system through OMOs, these countries can offset or support permanent, seasonal or cyclical shifts in the supply of reserve balances and thereby, affect short term interest rates and by extension other interest rates. These countries have well developed markets for public bonds and securities and the demand by banks for these bonds and securities readily response to changes in interest rates (John, 2010).

Monetary policy in Africa is not commonly used because most of the countries especially, those in sub-Saharan region (SSR) share a common currency, thus, they have no national central banks. Other countries in Africa do not issue public bond or have no domestic market for such securities or the markets are extremely shallow. In countries with well-developed central banks, like Zambia, revealed that demand by commercial banks for bonds does not readily respond to changes in interest rates because, there is little competitiveness in domestic bond markets and bonds of African governments have extremely low credit ratings (FSD, 2010).

In Kenya banking system operations are controlled through monetary policy. The central bank of Kenya formulates and implements monetary policy, directed to achieving and

maintaining stability in the general level of prices. The aim is to achieve stable prices and to sustain the value of the Kenya shilling. The CBK uses four tools to implement monetary policy; first, open market operations; where the bank buys or sells securities in the secondary market in order to achieve a desired level of bank reserves. Secondly, central bank rate; where the banks acts as the lender of last resort to provide secured short term loans to commercial banks on overnight basis. Thirdly, minimum reserve requirements; where the bank is empowered to retain a certain proportion of commercial banks deposits to be held as non-interest bearing reserves at the central bank of Kenya. Lastly, Kenya bankers' reference rate; where the central bank sets the Kenya banks' reference rate (KBRR) which acts as the bench mark rate for commercial banks' lending rate (CBK, 2015).

2.3 Monetary Policy Transmission Mechanisms

Banks play a special role in monetary transmission because they are well suited to solve asymmetric information problems in credit markets. Monetary transmission affects not only interest rates, but also the balance sheets of commercial banks (were, 2013). A monetary contraction leads to a reduction in the amount of free reserves and if banks are not able to offset the fall in reserves with an increase in equity, they are forced to adjust their assets by selling most liquid ones. This is the buffer stock behaviour; however, if such an adjustment is not sufficient, banks are faced with the need to constrain lending (Boivin 2010).

A fall in loan prices due to changes in monetary policy transmissions can lead to losses in banks' loan portfolios. Monetary policy triggers a rise in short-term interbank market interest rates, followed by a rise in lending and deposit rates in commercial banks. Owing to price rigidity, it results in rising real interest rates, which affect consumption, savings and investment decisions. These decisions are determined by short-term interest rates, but also medium-term and long-term rates and are affected by monetary policy transmissions (Demchuk, 2012). There are four main monetary transmission tools, namely; open market operations, minimum reserve requirements, central bank rate and Kenya banker's reference rate through which monetary policy actions impact on variables such as output

and prices and expectations of changes in these transmission tools have an important bearing on the effectiveness of monetary policy actions.

2.3.1 Open Market Operations

Open market operations promote central bank's non-inflationary economic growth. Through open market operations, the central bank of Kenya influences interest rates and the supply of money and credit. Changes in financial conditions lead in turn to movements in economic activity and general level of prices in the economy. In conducting open market operations central bank uses a number of different techniques, ranging from outright transactions and reserve transactions. The technique used depends on the central bank's operating procedures and changes in factors other than open market operations.

Open market operations lead to changes in the supply of reserves that commercial banks hold to meet their reserve requirements. Changes in reserves lead to changes in interest rates and the supply of money and credit. When reserves increase commercial banks are able to increase their loans and investments and thereby increase the deposit accounts held by borrowers. The rise in supply of money and credit tends to be accompanied by a decline in interest rates and a reduction in reserves leads to a decline in money and credit and upward pressure on interest rates (Chuen, Mertes and Weller, 2009).

2.3.2 Central Bank Rate

An increase in the central bank rate causes an increase in lending interest rates which reduces private investment and consumption expenditures, hence reducing output and pressure on prices. Movements in the policy rate are therefore only effective to the extent they influence the lending interest rates of banks and thereby economic activity in the country. Central bank rate increases the payments that firms and households have to make to service their floating rate debt (Mishkin, 2007). The effectiveness of this instrument depends on the competitiveness of the banking sector. Banks in oligopolistic market structure may decide to lower their profit margins rather than pass on the effects of the bank rate changes to borrowers. There might as well be asymmetric effects

between central bank rate and lending rates. Banks may be reluctant to reduce lending rates when the central bank rate is reduced thereby undermining the effectiveness of this monetary policy tool in providing countercyclical support to economic activity during a downturn. Hence changes in central bank rate may have little impact on credit conditions due to inelastic demand for or because of the banks practice of keeping spreads constant, while they could reduce their profit margins rather pass the burden of the policy rate to borrowers (Arnostova and Hurnik, 2005).

2.3.3 Minimum Reserve Requirements

The central bank of Kenya requires that commercial banks hold a minimum volume of reserves, either as vault cash or on deposit at the central bank. The required minimum is equal to certain percentages of various types of deposits that the public maintains at member banks. These percentages are referred to as reserve requirements. Reserve requirements are one of the instruments the central bank uses in controlling the money supply. The required reserves ratio affects the money supply by influencing the volume of resources that banks allocate to idle balances. In this way, the r-ratio affects the volume of loans and investments that banks hold, which in turn influences the money supply. When the r-ratio is high, banks will be required to maintain relatively large idle balances. Therefore, the volume of loans and investments that banks can acquire will be small. In turn, the small volume of loans and investments will tend to produce a low money supply. The money supply then is inversely related to the r-ratio (Olweny and Chiluwe, 2012).

2.3.4 Kenya Bankers' Reference Rate

The Kenya Banks' Reference Rate (KBRR) is the base rate for lending by commercial banks and microfinance banks as well as for pricing mortgage products. Movements in the KBRR enhance the monetary policy transmission through the lending rate channel which affects the inflation profile and economic activity. One of the advantages of the KBRR framework is that it minimizes information search costs since all banks have the same base rate. In addition, the efficiency in pricing credit ought to allow for competition

and a level playing field. However, while the direction and pace of changes in lending interest rates are influenced by changes in the KBRR, it is important to note that there is no one-to-one correspondence between KBRR and lending rates, due to risk profile differences between individual clients, sectors and types of loans. Therefore, the value of 'K' above the KBRR will depend on various factors such as the lender's perceived customer risk profile, speed and cost of collateral perfection and other costs arising from the due diligence processes (CBK, 2015).

2.4 Theories

The study was guided by the following theories;

2.4.1 The Monetary Circuit Theory

Graziani (1989) model Maintained that a central bank cannot exert an effective control over the total supply of money and that any attempt to exercise such control, by regulating either the monetary base or bank credit, would be inconsistent with the central bank's function. The model states that whenever a reserve requirement is established by the monetary authority, banks must have unrestrained access to the monetary base needed to meet the reserve ratio and that in this respect the central bank is forced to adopt an accommodative behaviour, to ensure equilibrium between money demand and supply, and regard money only as a component of the total liquidity of the system. The stock of money is bound to adjust in order to match the demand for money, whichever the current level of interest rates, because of both the accommodative behaviour shown by the central bank, in its function and of the generalized practice, in banking systems (Keen, 2009).

2.4.2 The Loanable Funds Theory

Wicksell's (1930) loanable funds theory implies that the equilibrium interest rate will be determined by the demand and supply conditions in the market for loanable funds. Thus, market interest rates are determined by the factors that control the supply of and demand for loanable funds. These funds are financial assets, which mainly comprise bank loans and household savings. The market for loanable funds brings together households, business firms, government and foreigners as either borrowers or savers. (Were 2013).

The loanable fund theory is a dynamic and optimizing theory of bank operation that integrates insights of production theory, financial intermediation and portfolio theories. The unified model clarifies the relationship between the performance of asset portfolios and a bank's output of services. Portfolio performance determines the rate of return on loans and banks' borrowed funds and, in turn, the discount rate used to derive the present value of future profits part of which are generated by bank services. Nevertheless, the quantity of service output is affected by performance only to the extent that portfolios of different risk require different amounts of information processing. The theory shows that loanable funds are merely an intermediate input that passes through banks, whereas true bank value added is only the services facilitating the provision of funds. The theory further establishes separability between the use of funds and the production functions of value added in a bank's overall optimization problem, by resolving the fundamental question of how to measure bank output; this theory contributes to a large literature on bank production. Moreover, this model can resolve some long-time conceptual debates in the bank production literature, particularly the one regarding the role of deposits. It demonstrates that deposit funds are "materials," inputs in the generation of new loans, but the transaction services associated with deposits are part of bank output. It also provides a theoretical basis for measuring bank output by identifying the value-added components of a bank's gross output (Ondieki, 2013).

2.5 Open Market Operations and Loans Portfolio Performance

Ngumi (2006) employed a model of real economy with a single consumption to analyze corporate finance and the monetary transmission mechanism. The findings of the study were that, monetary policy through OMO does not affect bank lending through changes in bank reserves; rather, it operates through changes in the spread of bank loans over corporate bonds, which induce changes in the aggregate, composition of financing firms and in banks equity capital base.

Kimani (2013) employed descriptive research design and analyzed data using descriptive analysis to assess the effects of monetary policies on lending behaviour of commercial banks in Kenya. The study found that Open market operations provides the bank with

low risk investments with certainty in pay off and therefore, banks may prefer OMO and that OMO also controls the short-term market interest rate of base money in an economy.

Borio (2012) used a model of monetary policy implementation in a corridor system to include the new liquidity regulation. The analysis of the study found that, correctly anticipating an open market operations effect on interest rates will require central banks to consider not only the size of the operation, but also the way the operation is structured and how it impacts on bank balance sheets.

2.6 Central Bank Discount Rate and Loans Portfolio Performance

Matemilola (2014) the study sought to determine the impact of monetary policy on bank lending rate. Data was analyzed from data stream of monetary data from January 1978 to December 2012. The findings showed that bank lending rate (BLR) response faster to a decrease in the monetary market rate (MMR). The findings also revealed that commercial banks are rigid to adjust their lending rates upward which support the customer reaction hypothesis and adverse selection hypothesis.

Onyekachi (2013) utilized secondary econometrics in a regression to assess the effect of bank lending rate on the performance of Nigerian deposit monetary banks. The findings confirmed that the lending rate and monetary policy rate have significant and positive effects on the performance of deposit money banks. The implication of this is that lending rate and monetary policy rate are true parameter of measuring bank performance.

Steven (2011) applied a time-varying firm heterogeneity in loan demand to determine credit supply and monetary policy effects: identifying the bank balance sheet channel with loan applications. The study found that tighter monetary and worse economic conditions substantially reduce loan granting, especially from banks with lower capital or liquidity ratios; responding to applications for the same loan, weak banks are less likely to grant the loan. Finally, firms cannot offset the resultant credit restriction by applying to other banks.

Akambi and Ajagbe (2012) used regression model to analyse the effect of monetary policy on commercial banks in Nigeria. The study found that the discount rate charged by the central bank was too low and even when high; do not seriously deter commercial banks' lending. Kimani (2013) employed descriptive research design and analyzed data using descriptive analysis to assess the effects of monetary policies on lending behaviour of commercial banks in Kenya. The study found that bank lending behaviour is influenced by central bank rate (CBR). The interest rate lowers the cost of borrowing and therefore, banks attract new loans demands.

Kato and Hisata (2005) under took a study on monetary policy uncertainty and market interest rates. The study used a simple model that relates monetary policy uncertainty to term structure of interest rates. The study found that long-term interest rates are positively related to monetary policy uncertainty with the magnitude increasing with maturity. Further, the study showed that the empirical evidence generally supports the theoretical predictions that an increase in consumption volatility leads to lower interest rates because higher uncertainty encourages households to increase savings.

2.7 Minimum Reserve Requirements and Loans Portfolio Performance

Kimani (2013) assessed the effects of monetary policies on lending behaviour of commercial banks in Kenya and employed descriptive research design and analyzed data using descriptive analysis. The study found that cash reserve ratio has effect on bank lending behaviour and reserve requirements cause immediate liquidity problems for banks with low excess reserves thereby, influencing lending and payment systems in the commercial banks concerned. Holding some funds in excess reserves provides enhanced liquidity and therefore, more smooth operation of payment system and that the higher the reserve requirement is set, the fewer funds banks will have to loan out. Banks decision to extend loans to new or existing customers by banks will be affected by both the current and near-term expected state of macro-economy as dictated by variation in monetary policies. Uncertainty may lead to holding behaviour by commercial banks and that when it is not certain on the changes in the monetary policies, banks might be forced to withhold credit in fear that it might result to non-performing loans.

Borio (2012) the study used a model of monetary policy implementation in a corridor system to include the new liquidity regulation. The analysis of the study found that the cash coverage ratio will not impair the ability of central banks to implement monetary policy, but the process by which they do so may change.

Alpha (2012) analysed whether monetary policies that are able to manipulate reserves positions of banks can affect bank lending and used a panel data of banks. The study results suggested that bank specific reserves is important in credit supply. Moreover, in determining their lending, banks consider not only their individual reserve position but also the systemic reserves. Hence, any monetary policy which can alter reserves is potentially effective on credit supply.

Liu and Seeiso (2009) investigated the impact of bank capital regulation on business cycle fluctuations. They studied the pro-cyclical nature of Basel II claimed in the literature and adopted the Bernanke et al. (1999) ``financial accelerator'' model (BGG), to which they augment a banking sector. They first studied the impact of a negative shock to entrepreneurs' net worth and a positive monetary policy shock on business cycle fluctuations. They then looked at the impact of a negative net worth shock on business cycle fluctuations when the minimum capital requirement increases from 8 percent to 12 percent. Their study findings suggested that, in the presence of credit market frictions and bank capital regulation, the reserve premium effect further amplifies the financial accelerator effect through the external finance premium channel, which, in turn, contributes to the amplification of Basel II pro-cyclicality. Moreover, under Basel II bank regulation, in response to a negative net worth shock, the reserve premium and the external finance premium rise much more if the minimum bank capital requirement increases, which, in turn, amplify the response of real variables. Finally, small adjustments in monetary policy can result in stronger response in the real economy, in the presence of Basel II bank regulation in particular, which is undesirable.

2.8 Kenya Bankers' Reference Rate and Loans Portfolio Performance

Oda and Ueda (2005) focused on the effects of the zero interest rate commitment and of quantitative monetary easing on medium to long-term interest rates. In the study they

applied a version of the macro-finance approach, involving a combination of estimation of a structural macro-model and calibration of time-variant parameters to the yield curve observed in the market. The study analysis tentatively concluded raising the reserve target may have been perceived as a signal indicating the central bank's accommodative policy stance although the size of the effect is not large and the portfolio rebalancing effect either by the banks supplying ample liquidity or by its purchases of long-term government bonds has not been found to be significant.

Porter and Teng (2013) investigated money market rates and retail interest regulations. The study developed a stylized theoretical model of interbank market and estimating a model for 7-day interbank repo rates. The empirical findings suggested that movements in administered interest rates are important determinants of market-determined interbank rates, in both levels and volatility. The announcement effects of reserve requirement changes also influence interbank rates, as well as liquidity injections from open market operations in recent years. The results also indicated that the regulation of key retail interest rates influences the behaviour of market-determined interbank rates, which may have limited their independence as price signals. Further deposit rate liberalization should allow short-term interbank rates to play a more effective role as the primary indirect monetary policy tool.

Leonce (2014) used a regression analysis model to determine the implications of monetary policy for credit and investment in Sub-Saharan African (SSA) countries. The findings of the study pointed out that, monetary policy has direct and indirect effects on domestic investment. Contractionary monetary policy discourages domestic investment because of the high interest rate regime that is maintained as a way of reducing inflation and containing it at low rates. High interest rates also discourage bank lending, which further decreases investment.

2.9   Open Market Operations, Minimum Reserve Requirements, Central Bank Rate, Kenya Banker's Reference Rate and Loans Portfolio Performance

Misati, Ouma and Ngoka (2014) used structural vector auto-regression to examine the relationship between financial structure variables and monetary policy as well as assess

the relative importance of various monetary transmission channels in Kenya. The study results showed that the changing financial structure represented by credit to the private sector and stock market indicators in Kenya only slightly altered relative importance of monetary policy transmission. The insignificance of credit to the private sector suggests that the importance attached to the bank lending channel in previous studies is warning while the marginal significance of the stock market indicator signals the potential for asset price channel. The results also indicated that the interest rate and exchange rate channels are relatively more important in Kenya while the asset prices is only marginally significant and bank lending channel is the weakest in the intermediate stage of monetary policy transmission. However, transmission of monetary policy to the ultimate objectives is somewhat slow and weak to inflation and almost absent to output. The result implies a limited role of monetary policy on growth and questions the wisdom of pursuing multiple objectives.

Were, et.al (2014) examined the effectiveness of monetary policy in Kenya based on policy simulations from a structural macro-econometric model. The analysis of the study was conducted using the policy rate, i.e. the central bank rate (CBR) and the cash reserve ratio (CRR) with respect to the interest rate and bank lending channels, respectively. The results indicated that whereas a change in the policy rate is effective in influencing short term rates, the long term lending rates respond marginally. Consequently, the transmission to the real economy and the overall impact on inflation is minimal. However, a change in CBR has a comparatively higher impact on inflation while a change in CRR has a relatively larger impact on aggregate demand. Enhancing the effectiveness of the CBR and strengthening of the interest rate channel have the potential of anchoring inflation expectations and boosting the effectiveness of monetary policy in Kenya.

Were and Samuel (2013) examined the monetary policy responses undertaken in mitigating the economic effects of the early 2008 domestic crisis and the global financial crisis that ensued. The study results showed that the policy interventions were initially effective in restoring confidence, lowering short term interest rates and maintaining macroeconomic stability, the expansionary monetary policy stance could not be sustained

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following increased inflationary pressures and unprecedented depreciation of the exchange rate. However, the sudden shift to a tight monetary policy stance partly counteracted the gains that had been achieved. Additionally, an assessment of the effectiveness of monetary policy using VAR analysis indicates weak monetary policy transmission mechanism.

Misati and Nyamongo (2012) investigated the effectiveness of asset price channel in monetary policy transmission and the effect of stock market volatility on monetary policy in Kenya. The study specifically used the VAR approach which is most appropriate for study involving analysis of policy shocks on macroeconomic variables. The main findings of their paper were: first, the evidence of the existence of the asset price channel of monetary policy transmission is mixed in Kenya. Second, while the effect of monetary policy on stock price volatility is not significant, stock market volatility creates instability in monetary policy variables, implying that information from the stock market may be important in predicting the business cycle.

Sichei and kamau (2012) analyzed demand for different monetary aggregates (M0, M1, M2 and M3) in Kenya for the period 1997-2011. The paper used dynamic frameworks to estimate and uncover parsimonious and empirically stable demand for money functions. The paper found that Price, real GDP, nominal 91-day Treasury bill rate, nominal interbank rate, nominal deposit rate and foreign interest rate affected the long-run demand for money functions to different degrees. The demand for money functions is found to be unstable over the period for the parameter values, implying that the current monetary targeting policy framework is inappropriate. However, there are challenges in adopting an alternative monetary policy framework.

2.10 Research Gap

Empirical studies have been done in Kenya, in relation to monetary policy and banking but not linked the two with loans portfolio performance among commercial banks. Studies have shown that decomposing the effects of money supply and interest rates would provide greater insight on how for instance specific interest rates such as mortgage rates impact investment in housing or home loans due to monetary shocks (olwey and

Chiluwe, 2012) . Other Studies on monetary policies showed that the efficacy of monetary policy depends on the speed and degree of monetary policy transmission to the real sector economy. The results show that transmission of monetary policy via commercial banks is sluggish and incomplete. This signals inefficiency in Kenya's financial market sector and poses serious challenges to monetary policy transmission and conduct of monetary policy in general. This study therefore seeks to fill this gap by establishing the links between monetary policy and loans portfolio performance.

2.11 Conceptual Framework

The Independent variables for the study are; open market operations, central bank discount rate, minimum reserve requirements and Kenya banker's reference rate while economic conditions is the intervening variable and dependent variable is loans portfolio performance.

Independent variable
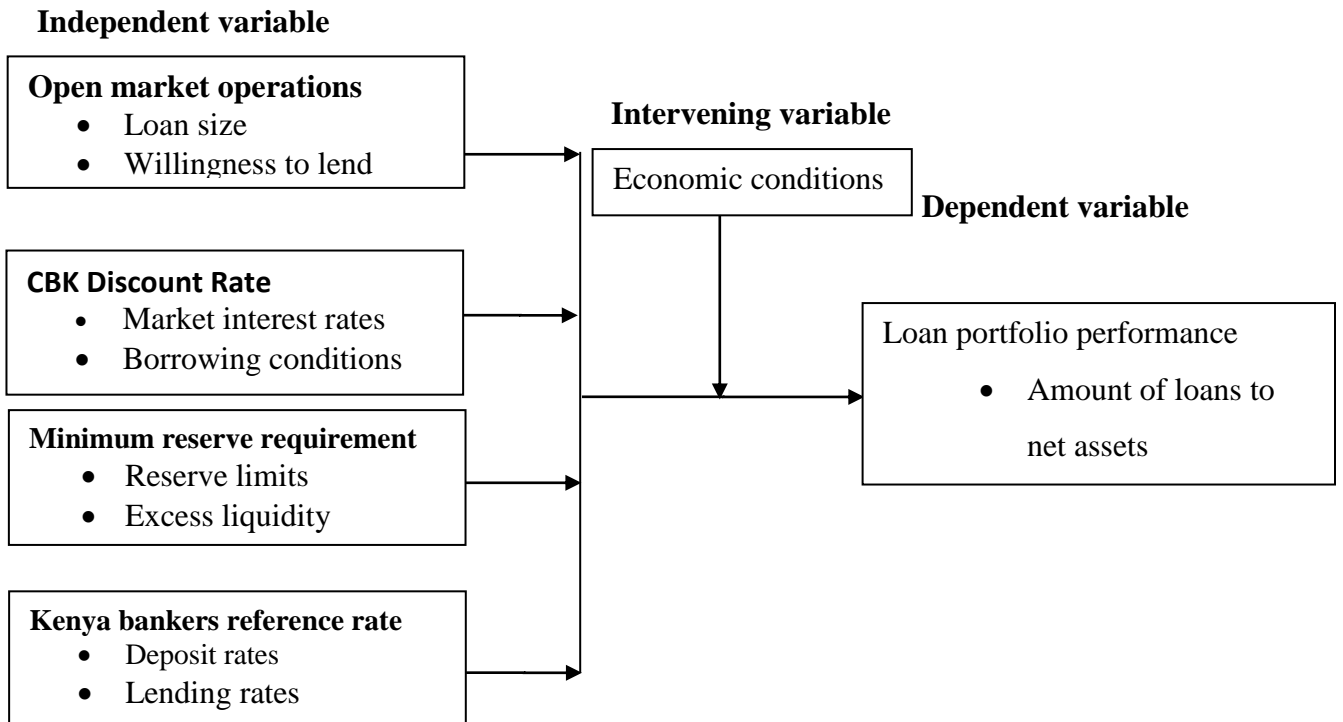
Source: Researcher.

Figure 2.1: Relationship between selected monetary policies and loans portfolio performance.

Monetary policy is directed to achieving and maintaining stability in the general level of prices. Movements in the general price level are influenced by the amount of money in circulation, and productivity of the various economic sectors, the Central Bank of Kenya regulates the growth of the total money stock to a level that is consistent with a predetermined economic growth target through monetary instruments. From the above diagram, Open Market Operation, central bank rate, minimum reserve requirements and Kenya bankers' reference rate are the monetary instruments that determines banks loan size, willingness to lend, market interest rates, borrowing conditions, bank reserve limits,

bank liquidity, deposit rates and the bank lending rates. Loan size is the sum of money that is owed to a given bank and these amounts changes with the prevailing economic conditions and the banks willingness to lend is determined by the amount of bank reserves. When the government buys or sells securities it affects the bank reserves thus, affecting willingness to lend by banks and bank loan size. The market interest rate and the borrowing conditions changes with changes in central bank interest rates. When the central bank rate is raised the market interest rates rises and borrowing conditions tightened. The minimum reserves requirements changes with the reserve limits and banks liquidity, when the reserve ratio is reduced the bank's reserves and liquidity increases. Bank deposit rates and lending rates rises when Kenya bankers' reference rate is raised thus, increasing the interest rate spread hence making cost of borrowing very expensive.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Design

This study adopted a descriptive survey design. The main reason for the use of a descriptive survey design is that it provides opinions and perceptions and supports inferences of cause and effect on the topic under study. Survey designs are not only restricted to fact findings, but allows formulation of important principles of knowledge and solution to significant problems in relation to effects of selected monetary policies on loans portfolio performance among commercial banks in Kenya (Orodha, 2003).

3.2 Target Population

The population of interest targeted consisted of 30 registered commercial banks as per the records held by the Kenya Banker's Association as at 31st March, 2015. The researcher undertook a census of the 30 banks and one credit officer was targeted for response to the self-administered questionnaire that was used for this study, since they are conversant with the effects of selected monetary policies on loans portfolio performance among commercial banks in Kenya.

3.3 Data Collection Procedure

The study made use of both primary and secondary data. Primary data was derived from Questionnaires that were distributed to credit officers of the targeted banks. This instrument allowed for cost and was time saving for respondents as well as the researcher. The secondary data basically reviewed relevant documents which contained information concerning amount of loans to net assets. This was collected from statistics available at the central bank of Kenya.

3.4 Reliability and Validity of the Research Instruments

The content validity of the instrument was determined by the researcher through a discussion of the items in the instrument with the supervisor and friends. They were expected to indicate by tick or cross for every item in the questionnaire if it measured

what was supposed to measure or not. The advice included suggestions, clarifications and other inputs in order.

Prior to the administration of questionnaires, a pretest session was conducted to determine instrument reliability. According to Mugenda and Mugenda (1999) the pilot units' equivalent to one-tenth of the proposed sample size is sufficient. The pilot test was conducted using three commercial banks in Iten town and Reliability test of the instruments was done using Cronbach alpha coefficient of 0.7. The results of the pilot study were not included in the final results.

3.5 Data Analysis and Presentations

The data was coded and put in systematic form to facilitate data analysis. The data obtained was analyzed using Statistical Package for Social Science (SPSS) version 20. Analysis of data was done using descriptive statistics specifically mean, standard deviation, percentages and frequencies. The processed data was presented using tables. Phi and Cramer's V was then performed to establish the strength of relationship between the independent variables and the dependent variable and Chi-square was used at 5% (0.05) significance level to test for the significance of each predictor variables in the model in order to explain whether or not two attributes are associated. The analysis was to indicate whether there was any association between the independent variable and dependent variable. The independent variables were open market operations, central bank rate, minimum reserve requirements and Kenya bankers, reference rate, while the dependent variable was loans portfolio performance. The chi-square p-value from the analyzed data was compared to the critical significance level at a given degree of freedom. Where the p-value was greater than the significance level, the null hypothesis was accepted and the alternative hypothesis rejected. P=0.05 was the basis of accepting or rejecting the null hypothesis. The chi Square is denoted by X^2 and the formula is given as:

$$X^2 = \sum_{i=1}^{n} \frac{(O_i - E_i)^2}{E_i}$$

Where, O = Observed frequency, E = Expected frequency, $\sum$ = Summation, X^2 = Chi Square value

The multiple regression was also done in order to establish the nature of the relationship between open market operations, central bank rate, minimum reserve requirements and kenya banker's reference rate and the joined effect of selected monetary policies on loans portfolio performance.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Background Statistics

A total of 30 questionnaires were administered to the bank credit officers by the researcher during the study and all of them were duly filled and returned to the researcher, representing a return rate of 100%. According to Mugenda and Mugenda (2007), a response rate of 50% is adequate for analysis and reporting, a rate of 60% is good and that of over 70% is excellent. The return rate was therefore rated as excellent. The responses of the credit officers in terms of their demographic information is presented in table 4.1

Table 4.1: Demographic Information

Background Statistics		Percent
Education Level	Certificate	13.3
	Diploma	13.3
	Degree	36.7
	Masters	36.7
	Total	**100.0**
Work Experience	1-5 years	36.7
	5-10 years	30.0
	10-15 years	23.3
	15-20 years	10.0
	Total	**100.0**
Position Occupied	Administrative	30.0
	Executive	30.0
	Supervisory	40.0
	Total	**100.0**

Source: Field Data (2016)

The study results first, on educational level, revealed that the 13.3% had certificate, 13.3% had diploma, and 36.7% had degree while the rest 36.7% had master's degree in their respective fields. The findings show that most of the respondents had degrees and masters and therefore were knowledgeable and understood what the study expected from them. Secondly, on the work experience of the respondents, the study findings showed that 36.7% of the respondents had been in the bank for 1-5 years, 30% had been in the

bank for 5-10 years, 23.3% had been in the bank 10-15 years, while the rest 10% had been in the bank for 15-20 years. Therefore, majority (36.7%) of the respondents had been in the bank between 1-5 years. That means that the sample was composed of employees who have been in the bank for a while. The last attribute of the respondents was on the position occupied. Out of the 30 respondents 30% were from administrative, 30% were from executive while the rest 40% were from supervisory section. The findings showed that majority of the respondents (40%) were from supervisory section.

4.2   Reliability and Validity

The study sought to test the reliability and validity of the research instruments. The following section discusses the results of the tests of reliability and validity.

4.2.1 Test of Reliability

The research scales were examined to determine their reliability. This was done using Cronbach's alpha coefficient. The results of the analysis presented in Table 4.2 show that all the research constructs had alpha coefficients of approximately 0.7. Overall, the instrument met the recommended threshold of 0.7 (Nunnally & Bernstein, 1994) and thus was considered reliable

Table 4.2: Reliability Statistics for selected monetary policies on loans portfolio

Reliability Statistics	
Cronbach's Alpha	N of Items
0.701	3

Source: Field Data (2016)

4.2.2 Validity

Factor analysis was conducted to test construct validity. Factor analysis was used to check the extent to which each item in the scales contributed to the respective factor. The rotated component matrix is presented in Table 4.3

Table 4.3: Factor analysis for selected monetary policies on loans portfolio

Scale Items	Factor loading	Eigen Values	Percentage variance	Cumulative %
Open Market Operations	0.847	2.047	29.245	29.245
Central Bank rate	0.795	1.684	24.052	53.297
Minimum Reserve Requirements	0.554			
Kenya bankers' Reference Rate	0.591			

Source: Field Data (2016)

The study results above presents how the items were grouped to two factors based on selection criteria of an eigen values greater than 1.0. The table also shows factor loading. Any item that failed to meet the criteria of having a factor loading value of greater than 0.5 and loads on one and only one factor was dropped from the study (Liao et al,2007). In our case the factor loading ranged between 0.554 and 0.847 which was greater than 0.5 therefore, there was no item dropped.

The eigenvalue for two factors was greater than 1.0 (2.047, 1.684), which implies that each factor explained more variance than a single variable. The cumulative percentage of variance explained by 2 factors was 53.297 per cent. In other words, more than 53.297 per cent of the common variance shared by 7 items was accounted or explained by these 2 factors; therefore the construct validity was established.

4.3   Descriptive Analyses

This section presents and discusses results of the study variables.

4.3.1 Effects of Open Market Operations on Loans Portfolio Performance

The study sought to describe the effects of open market operations and respondents were asked to indicate the extent to which they agreed that open market operations affect loan portfolio performance. The responses were analyzed using mean scores and standard deviations. Higher means score indicated strong agreement and lower mean score indicated strong disagreement. Table 4.4 presents the results of the analysis.

Table 4.4: Mean and Std. Deviation for Open Market Operations on loans portfolio performance

Scale Items	Minimum	Maximum	Mean	Std.
Extensive government borrowing through treasury bills and bonds reduces amount of funds set aside as investment for lending thus, reducing bank loan portfolio	1.00	4.00	2.20	.92
Extensive government borrowing through treasury bills and bonds reduces the bank ability to lend to private sector thus, reducing bank loan portfolio	1.00	4.00	2.21	.96
Extensive government borrowing through treasury bills and bonds increases the bank lending rate therefore, reducing bank loan portfolio	1.00	4.00	2.19	.95
Extensive government borrowing through treasury bills and bonds reduces the bank reserves hence, constraining lending and reducing bank loan portfolio	1.00	4.00	2.23	1.00
Extensive repurchase of government treasury bills and bonds increases amount of funds set aside as investment for lending and increasing bank loan portfolio	1.00	4.00	2.18	.97
Extensive repurchase of government treasury bills and bonds increases the bank ability to lend to private sector and increases the bank loan portfolio	1.00	4.00	2.23	.94
Extensive repurchase of government treasury bills and bonds reduces the bank lending rate and increases bank loan portfolio	1.00	4.00	2.17	.95
Extensive repurchase of government treasury bills and bonds increases the bank reserves and increases bank loan portfolio	1.00	5.00	2.37	1.10

Source: Field Data (2016)

The results of the study shows that most of the respondents agreed (M=2.2, SD=0.92) that extensive government borrowing through treasury bills and bonds reduces amount of funds set aside as investment for lending thus, reducing bank loan portfolio. Furthermore majority of them (M=2.21, M=0.96) agreed that extensive government borrowing through treasury bills and bonds reduces the bank ability to lend to private sector thus, reducing bank loan portfolio. It was also noted most of the respondents agreed that extensive government borrowing through

treasury bills and bonds increases the bank lending rate therefore, reducing bank loan portfolio (M=2.19, SD=0.95), they strongly agreed that extensive government borrowing through treasury bills and bonds reduces the bank reserves hence, constraining lending and reducing bank loan portfolio (M=2.23, SD=1.00).

The results also shows that majority of the selected respondents agreed that (M=2.18, SD=0.97) agreed that extensive repurchase of government treasury bills and bonds increases amount of funds set aside as investment for lending and increasing bank loan portfolio, they also did agreed (M=2.23, SD=0.95) that extensive repurchase of government treasury bills and bonds increases the bank ability to lend to private sector and increases the bank loan portfolio. It was also noted that most of the credit officers agreed that extensive repurchase of government treasury bills and bonds reduces the bank lending rate and increases bank loan portfolio (M=2.17, SD=0.95). Lastly the findings showed most of the credit officers strongly agreed that extensive repurchase of government treasury bills and bonds increases the bank reserves and increases bank loan portfolio (M=2.37, SD=1.10)

The findings showed that most of the respondents agreed that extensive government borrowing through treasury bills and bonds has reduced the bank ability to lend to private sector thus, reducing bank loan portfolio, that it has reduced the bank reserves hence constraining lending and reducing bank loan portfolio and whether it has reduced bank lending rate and increases bank loan portfolio. Furthermore the study findings showed that most of the selected respondents agreed that extensive repurchase of government treasury bills and bonds increases amount of funds set aside as investment for lending and increasing bank loan portfolio. They agreed that extensive repurchase of government treasury bills and bonds increases the bank reserves and increases bank loan portfolio and has reduced the bank lending rate and increases bank loan portfolio.

4.3.2 Effects of Central Bank Rate on Loans Portfolio Performance

The study sought to establish the effects of central bank rate and respondents were asked to indicate the extent to which they agreed that central bank rate affect loan portfolio performance. The responses were analyzed using mean scores and standard deviations. Higher

means score indicated strong agreement and lower mean score indicated strong disagreement. Table 4.5 presents the results of the analysis.

Table 4.5: Mean and Std. Deviation for Central Bank Rate on loans portfolio performance

Scale Items	Min	Max	Mean	Std.
Increase in Central bank discount rate increases the bank lending rate and market interest rates hence, reducing the size of bank loans	1.00	4.00	1.80	.85
Increase in Central bank discount rate reduces the bank borrowing from the central bank and other banks thus, reducing the bank loan portfolio	1.00	5.00	2.10	1.03
Increase in Central bank discount rate reduces bank reserves and the size of loan portfolio	1.00	4.00	2.23	.94
Increase in Central bank discount rate reduces the bank interest rate spread and bank loan portfolio	1.00	5.00	2.07	1.01
Reduction in Central bank discount rate reduces the bank lending rate and market interest rates therefore, increasing the size of bank loan portfolio	1.00	5.00	2.23	1.04
Reduction in Central bank discount rate increases the bank borrowing from the central bank and other banks thus, increasing the amount of bank loan portfolio	1.00	5.00	2.87	1.43
Reduction in Central bank discount rate increases the bank reserves and bank loan portfolio	1.00	5.00	3.00	1.23
Reduction in Central bank discount rate increases the bank interest rate spread and bank loan portfolio	1.00	5.00	2.87	1.43

Source: Field Data (2016)

The study results shows that majority of the respondents agreed that increase in Central bank discount rate increases the bank lending rate and market interest rates hence, reducing the size of bank loans (M=1.8, SD=0.85). most of the credit officers agreed that increase in Central bank discount rate reduces the bank borrowing from the central bank and other banks thus, reducing the bank loan portfolio (M=2.10, SD=1.03). It was also noted that most of the credit officers agreed that increase in Central bank discount rate reduces bank reserves and the size of loan portfolio (M=2.23, SD=0.94). In addition table 4.4 shows that the mean for the view that increase in Central bank discount rate reduces the bank interest rate spread and bank loan portfolio was (M=2.07, SD=1.01), that of the view reduction in Central bank discount rate reduces the bank lending rate and market interest rates therefore, increasing the size of bank loan portfolio (M=2.23, SD=1.04) and that of the view that reduction in Central bank discount

rate increases the bank borrowing from the central bank and other banks thus, increasing the amount of bank loan portfolio (M=2.87, SD=1.43). It was noted that most of the credit officers were undecided on whether reduction in Central bank discount rate increases the bank reserves and bank loan portfolio (M=3.00, SD=1.23). Furthermore most of the respondents agreed reduction in Central bank discount rate increases the bank interest rate spread and bank loan portfolio (M=2.87, SD=1.43).

Majority of the respondents agreed that increase in Central bank discount rate increases the bank lending rate and market interest rates hence, reducing the size of bank loans. It reduces the bank borrowing from the central bank and other banks thus, reducing the bank loan portfolio. It was also noted that most of the credit officers agreed that increase in Central bank discount rate reduces the bank interest rate spread and bank loan portfolio. Moreover most of them agreed that education in Central bank discount rate reduces the bank lending rate and market interest rates therefore, increasing the size of bank loan portfolio. Furthermore, the findings found out that most of the respondents were undecided on whether reduction in Central bank discount rate increases the bank reserves and bank loan portfolio. Most of them further agreed that reduction in Central bank discount rate increases the bank interest rate spread and bank loan portfolio.

4.3.3 Effects of Minimum Reserve Requirements on Loans portfolio performance

The study sought to find out the effects of minimum reserve requirements and respondents were asked to indicate the extent to which they agreed that minimum reserve requirements affect loans portfolio performance. The responses were analyzed using mean scores and standard deviations. Higher means score indicated strong agreement and lower mean score indicated strong disagreement. Table 4.6 presents the results of the analysis.

Table 4.6: Mean and Std. Deviation for Minimum Reserve Requirements and loans portfolio performance

Scale Items	Min	Max	Mean	Std
Increase in the minimum reserve ratio forces the bank to convert marketable securities to meet new loan demands and therefore, increasing the bank loan portfolio	1.00	5.00	2.30	1.02
Increase in the minimum reserve ratio makes the bank to lend to economic sectors discriminatively hence, reducing the bank loan portfolio	1.00	5.00	2.93	1.55
Increase in the minimum reserve ratio increases the bank deposit rates thus, increasing bank customer deposits and bank loans portfolio	1.00	5.00	3.13	1.31
Increase in the minimum reserve ratio Calls for tightening of credit policy and reduction in bank loan portfolio	1.00	5.00	3.00	1.41
Reductions in the minimum reserve ratio forces the bank to buy marketable securities to cut new loan demands hence, reduces bank loan portfolio	1.00	5.00	2.57	1.14
Reductions in the minimum reserve ratio makes the bank to lend to economic sectors equitably thus, increases the bank loan portfolio	1.00	5.00	2.43	1.19
Reductions in the minimum reserve ratio reduces the bank deposit rates thus, reducing customer demand deposits and bank loan portfolio	1.00	5.00	2.67	1.40
Reductions in the minimum reserve ratio reduces tightening of credit policy and increases bank loan portfolio	1.00	5.00	2.47	1.14

Source: Field Data (2016)

The results of the study showed that the mean score for the view that increase in the minimum reserve ratio forces the bank to convert marketable securities to meet new loan demands and therefore, increasing the bank loan portfolio was (M=2.30, SD=1.02). Furthermore it was noted most of the credit officers agreed that increase in the minimum reserve ratio makes the bank to lend to economic sectors discriminatively hence, reducing the bank loan portfolio (M=2.93, SD=1.55). the results also shows that majority of the respondents were undecided on the view that increase in the minimum reserve ratio increases the bank deposit rates thus, increasing bank customer deposits and bank loans portfolio (M=3.13, SD=1.31) as well as on whether increase in the minimum reserve ratio Calls for tightening of credit policy and reduction in bank loan portfolio   (M=3.00, SD=1.41).

The findings also shows that majority of the respondents agreed that reductions in the minimum reserve ratio forces the bank to buy marketable securities to cut new loan demands hence, reduces bank loan portfolio (M=2.57, SD=1.14), reductions in the minimum reserve ratio makes the bank to lend to economic sectors equitably thus, increases the bank loan portfolio (M=2.43, SD=1.19) ,they also agreed that reductions in the minimum reserve ratio reduces the bank deposit rates thus, reducing customer demand deposits and bank loan portfolio (M=2.67, SD=1.40). In addition most of the credit officers agreed that reductions in the minimum reserve ratio reduces tightening of credit policy and increases bank loan portfolio (M=2.47, SD=1.14).

The results showed that majority of the credit officers agreed that increased minimum reserve ratio makes the bank to lend to economic sectors discriminatively hence, reducing the bank loan portfolio. It has caused the banks to tighten their credit policy and reduction in bank loan portfolio. The study results also showed that most of the credit officers agreed that reductions in the minimum reserve ratio forces the bank to buy marketable securities to cut new loan demands hence, reduces bank loan portfolio, it has reduced the bank deposit rates thus, reducing customer demand deposits and bank loan portfolio. In addition a reduction in the minimum reserve ratio reduces tightening of credit policy and increases bank loan portfolio. However on the other hand majority of the respondents were undecided on whether increase in the minimum reserve ratio increases the bank deposit rates thus, increasing bank customer deposits and bank loans portfolio neither were they decided on whether increase in the minimum reserve ratio calls for tightening of credit policy and reduction in bank loan portfolio.

4.3.4 Effects of Kenya Bankers' Reference Rate on loans portfolio performance

The study finally sought to determine the effects of Kenya bankers' reference rate and respondents were asked to indicate the extent to which they agreed that Kenya bankers' reference rate affect loan portfolio performance. The responses were analyzed using mean scores and standard deviations. Higher means score indicated strong agreement and lower mean score indicated strong disagreement. Table 4.7 presents the results of the analysis.

Table 4.7: Mean and Std. Deviation for Kenya bankers' reference rate and loans portfolio performance

Scale Items	Min	Max	Mean	Std.
Reduction in Kenya bankers reference rate (KBRR) increases the bank credit demands and bank loan portfolio	1.00	5.00	2.51	1.25
Reduction in Kenya bankers reference rate (KBRR) reduces the bank lending rate thus, increasing bank loan portfolio	1.00	5.00	2.57	1.33
Reduction in Kenya bankers reference rate (KBRR) increases the bank reserves and bank loan portfolio	1.00	5.00	3.13	1.11
Increase in Kenya bankers reference rate (KBRR) reduces the bank credit demands and bank loan portfolio	1.00	4.00	2.33	.88
Increase in Kenya bankers reference rate (KBRR) increases the bank lending rate therefore, reducing bank loan portfolio	1.00	5.00	2.50	1.41
Increase in Kenya bankers reference rate (KBRR) reduces the bank reserves and bank loan portfolio	1.00	5.00	2.30	1.32

Source: Field Data (2016)

The findings of the study revealed that mean score for the reduction in Kenya bankers reference rate (KBRR) increases the bank credit demands and bank loan portfolio (M=2.51,SD=1.25). The item reduction in Kenya bankers reference rate (KBRR) reduces the bank lending rate thus, increasing bank loan portfolio (M=2.57 , SD=1.33) and the item reduction in Kenya bankers reference rate (KBRR) increases the bank reserves and bank loan portfolio had a mean of (M=3.13, SD=1.11). The score for the view that increase in Kenya bankers reference rate (KBRR) reduces the bank credit demands and bank loan portfolio was (M=-2.33, SD=0.88). The overall mean for the influence of minimum reserve requirements on loan portfolio was 2.56. This mean score indicates that the most of the credit officers agreed that a minimum reserve requirement has an effect on loan portfolio performance.

The results showed most of credit officers agreed that reduction in Kenya bankers reference rate increases the bank credit demands and bank loan portfolio, it has reduced the bank lending rate thus, increasing bank loan portfolio. In addition the study also found out that most of the credit officers agreed that increase in Kenya bankers reference rate increases the

bank lending rate therefore, reducing bank loan portfolio and reduces the bank reserves and bank loan portfolio.

4.4 Correlation Analysis

The study performed Phi and Cramer's V to establish the strength of relationship between the independent variables and the dependent variable and the results are as below.

4.4.1 Open Market Operations and loans portfolio performance

Table 4.8: Phi and Cramer's V for Open Market Operations and loans portfolio performance

	Correlation	Value	Sig.
	Phi	0.566	0.649
	Cramer's V	0.327	0.649

Source: Field Data (2016)

The study results show that the Phi coefficient is positive and there is a moderate association between open market operations and performance of loans portfolio whereas Cramer's V shows a mildly positive association between the variables. According to the above results, it shows that the relationship between open market operations and loans portfolio performance is mildly positive. Therefore, a change in central bank decisions on open market operations has a positive and mildly effects on the loans portfolio performance.

4.4.2 Central Bank rate and loans portfolio performance

Table 4.9: Phi and Cramer's V for Central Bank Rate and loans portfolio performance

	Correlation	Value	Sig.
	Phi	.591	.574
	Cramer's V	.341	.574

Source: Field Data (2016)

The above study results shows that Phi coefficients is 0.591 which indicate that the association between central bank rate on loans portfolio performance is positively moderate

whereas, Cramer's V shows that the association between the variables was mildly positive. These results indicate that a change in the central bank rate mildly affects the loans portfolio performance of banks.

4.4.3 Minimum Reserve Requirements and Loans Portfolio performance

Table 4.10: Phi and Cramer's V for Minimum Reserve Requirements and Loans Portfolio performance

Correlation	Value	Approx. Sig.
Phi	.612	.509
Cramer's V	.353	.509

Source: Field Data (2016)

Using phi coefficient it's clear that there is a positive and strong association between minimum reserve requirements on loans portfolio performance (ϕ=0.612).This implies that the credit officers response showed that there was a strong association between the two variables. Using Cramer's V coefficient there was a positive but weak relationship between minimum reserve requirements on loans portfolio performance (V=0.353). This means that a change in minimum reserve ratio has a positive but weak effect on the loans portfolio performance of banks.

4.4.4 Kenya bankers' Reference Rate and loans portfolio performance

Table 4.11: Phi and Cramer's V for Kenya bankers' Reference Rate and loans portfolio performance

Correlation	Value	Approx. Sig.
Phi	.506	.809
Cramer's V	.292	.809

Source: Field Data (2016)

Using the phi coefficient it's clear that there is a positive and strong association between Kenya bankers' reference rate and loans portfolio performance (ϕ=0.506).This implies that the credit officers response indicated that there was a strong association between the two variables. Using Cramer's V coefficient there was a positive but weak relationship between

Kenya bankers' reference rate on loans portfolio performance among banks (V=0.292). According to these results it's indicative that a change in central bank Kenya bankers' reference rate has a positive but weak affect on loans portfolio performance.

4.5 Test of Hypotheses

This section presents the results and interpretations of the inferential statistics in relation to the research hypotheses.

4.5.1 Open Market Operations and loans portfolio performance

The first objective of the study sought to determine the effects of open market operations with the hypothesis open market operations have no significant effect on loans portfolio performance. The relationship between the two variables was determined and the results are presented in table 4.12

Table 4.12: Chi-Square Tests for Open Market Operations and loans portfolio performance

Chi-square	Value	df	*P-value*.
Pearson Chi-Square	10.485	12	.574
Likelihood Ratio	12.069	12	.440
Linear-by-Linear Association	.539	1	.463

Source: Field Data (2016)

The study findings shows that Pearson Chi-Square (χ^2= 10.485, p = 0.574 p>0.05). This shows that the null hypothesis was accepted hence there was no significant relationship between open market operations and loans portfolio performance among commercial banks in Kenya. This implies that according to the response of credit officers, open market operations do not affect loans portfolio performance. Similarly Ngumi (2006) found that an open market operation does not affect bank lending through changes in bank reserves. Contrary to the findings, Kimani (2013) in her study found out that open market operation provides the bank with low risk investments with certainty in pay off and therefore prefer open market operation because it controls the short-term market interest rate of base money in an economy hence improving loans portfolio performance.

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4.5.2 Central Bank Rate and Loans Portfolio Performance

Secondly, the study sought to find out the effects of central bank rate with the hypothesis central bank rate has no significant effect on loans portfolio performance. The relationship between the two variables was established and the results are presented in table 4.13

Table 4.13: Chi-Square for Central bank rate and loans portfolio performance

Chi-square	Value	df	*p*-value
Pearson Chi-Square	9.619	12	0.649
Likelihood Ratio	10.207	12	0.598
Linear-by-Linear Association	0.393	1	0.531

Source: Field Data (2016)

The study results shows that the chi-square was (χ^2= 9.619, p = 0.649 p>0.05). This tells us that there was no statistically significant association between Central bank rate and performance of loans. Contrary to this Steven (2011) found that tighter monetary and worse economic conditions substantially reduce loan granting, especially from banks with lower capital or liquidity ratios; responding to applications for the same loan, weak banks are less likely to grant the loan and Were, et.al (2014) noted that enhancing the effectiveness of the CBR and strengthening of the interest rate channel have the potential of anchoring inflation expectations and boosting the effectiveness of monetary policy in Kenya.

4.5.3 Minimum Reserve Requirements and loans portfolio performance

Thirdly, the study sought to establish the effects of minimum reserve requirements with the hypothesis minimum reserve requirements have no significant effect on loans portfolio performance. The relationship between the two variables was established and the results are presented in table 4.14

Table 4.14: Chi-Square Tests Minimum Reserve Requirements and loans portfolio performance

Chi-square	Value	df	*p*-value
Pearson Chi-Square	11.234	12	.509
Likelihood Ratio	14.024	12	.299
Linear-by-Linear Association	2.083	1	.149

Source: Field Data (2016)

The Chi square test as shown in the study results above, found that there was no significant relationship between minimum reserve requirements on loans portfolio performance (χ^2=11.234 p = 0.509,p>0.05). Contrary Alpha (2012) used a panel data and he empirically analyzed whether monetary policies that are able to manipulate reserves positions of banks can affect bank lending. The study results suggested that bank specific reserves is important in credit supply. Moreover, in determining their lending, banks consider not only their individual reserve position but also the systemic reserves. Hence, any monetary policy which can alter reserves is potentially effective on credit supply. Similarly Kimani (2013) her study found that cash reserve ratio has effect on bank lending behaviour and reserve requirements cause immediate liquidity problems for banks with low excess reserves thereby, influencing lending and payment systems in the commercial banks concerned. She further noted that holding some funds in excess reserves provides enhanced liquidity and therefore, more smooth operation of payment system and that the higher the reserve requirement is set, the fewer funds banks will have to loan out.

4.5.4 Kenya bankers' reference rate and loans portfolio performance

Fourthly, the study sought to determine the effects of Kenya bankers' reference rate with the hypothesis Kenya bankers' reference rate has no significant effect on loans portfolio performance. The relationship between the two variables was determined and the results are presented in table 4.15

Table 4.15: Chi-Square Tests for Kenya bankers' reference rate and loans portfolio performance

Chi-square	Value	df	*p*-value
Pearson Chi-Square	7.690	12	.809
Likelihood Ratio	9.547	12	.656
Linear-by-Linear Association	.934	1	.334

Source: Field Data (2016)

From the above results there was no statistical significant relationship between Kenya bankers' reference rate and loans portfolio performance (χ^2=7.690, p=0.809, p>0.05). Contrary to this Leonce (2014) findings pointed out that, monetary policy has direct and indirect effects on domestic investment. He noted that high interest rates also discourage bank lending, which further decreases investment. Additionally Porter and Teng (2013) found out that movements in administered interest rates are important determinants of market-determined interbank rates, in both levels and volatility.

4.5.5 Joint Effect of Selected Monetary Policies on Loans Portfolio Performance

Finally, the study sought to find out the joint effect of selected monetary policies on loans portfolio performance and the regression analysis output is presented in table 4.16

Table 4.16 multiple regression for joint Effects of selected Monetary policies on Loans Portfolio Performance

	Coefficients						
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	3.425	.856		4.003	.000		
Open market operations (X_1	-.145	.170	-.158	-.853	.402	.937	1.067
Central bank rate (X_2)	-.233	.167	-.271	-1.396	.175	.849	1.178
Minimum reserve requirements (X_3)	.282	.145	.367	1.944	.063	.900	1.112
Kenya bankers reference rate (X_4)	-.236	.175	-.250	-1.345	.191	.927	1.079

Source: Field Data (2016)

Dependent Variable: loans portfolio performance

y(Loan Portfolio Performance)=3.425-0.145(Open market operations)-0.233(Central bank rate)+0.282(Minimum reserve requirements)-0.236(Kenya bankers reference rate)

A multiple regression was run to predict Loans Portfolio Performance from, Open market operations, Central bank rate, Minimum reserve requirements, and Kenya bankers' reference rate. Then output shows that there was an inverse relationship between the selected monetary policies and loans portfolio performance. This means that monetary policy directives have less influence on loans portfolio performance. Contrary to this Kimani (2013) findings pointed that

bank lending behavior is influenced by monetary policy actions directed by central bank rate. The interest rate lowers the cost of borrowing and therefore, banks attract new loan demands.

Moreover Collinearity test was carried out and the Collinearity statistics is shown in table 4.16. Multicollinearity can be done by examining tolerance and the Variance Inflation Factor (VIF). Small tolerance value indicates that the variable under consideration is almost a perfect linear combination of the independent variables already in the equation and that it should not be added to the regression equation. In general if the VIF value lies between 1-10 then there is no multicollinearity whereas if the value VIF<1 or >10 then there is multicollinearity. Based on the Coefficients output, Collinearity Statistics obtained a values (1.067, 1.178, 1.112, 1.079) which is between 1-10 hence there is no multicollinearity which means there is no similarity between the independent and dependent variable

4.6 Loans Portfolio Performance

The study also sought to find out loans portfolio performance through changes in monetary policy actions and the total bank net assets and total bank loans for the past 5 years. Secondary data was collected from central bank of Kenya. The study performed chi-square test and the results are as shown in table 4.17.

Table 4.17 chi-square tests for loans portfolio performance

Chi-Square Tests			
	Value	df	Sig.
Pearson Chi-Square	20.000[a]	16	.220
Likelihood Ratio	16.094	16	.446
Linear-by-Linear Association	3.992	1	.046
N of Valid Cases	5		

Source: Field Data (2016)

The Chi-square test as shown in the study results above, found that there was no significant relationship between monetary policy actions, total bank assets and the net bank loans ($\chi^2=20$ p = 0.20, p>0.05).

CHAPTER FIVE

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

5.1 Summary of the Findings

First, the study sought to determine the effects of open market operations and according to the findings majority of the respondents agreed that extensive government borrowing through treasury bills and bonds have reduced the bank ability to lend to private sector thus, reducing bank loan portfolio that it has reduced the bank reserves hence constraining lending and reducing bank loan portfolio and it has reduced bank lending rate and increases bank loan portfolio. The study also found out that there was no significant relationship between open market operations and loans portfolio performance among commercial banks in Kenya (p>0.05). The association between central bank rates on loans portfolio performance was moderate association.

Secondly, the study sought to establish the effects of central bank rate and the findings showed that majority of the respondents strongly agreed that increase in Central bank discount rate increases the bank lending rate and market interest rates hence, reducing the size of bank loans. It reduces the bank borrowing from the central bank and other banks thus, reducing the bank loan portfolio. It was also noted that most of the credit officers strongly agreed that increase in Central bank discount rate reduces the bank interest rate spread and bank loan portfolio. The study furthermore found out that there was no significant relationship between an increase in the central bank rate causes an increase in lending interest rates which reduces private investment and consumption expenditures, hence reducing output and pressure on prices and loans portfolio performance among commercial banks in Kenya (p>0.05).

Thirdly, the study sought to find out the effects of minimum reserve requirements and the study results showed that majority of the credit officers agreed that increased minimum reserve ratio makes the bank to lend to economic sectors discriminatively hence, reducing the bank loan portfolio. It has caused the banks to tighten their credit policy and reduction in bank loan portfolio. The study results also showed that most of the credit officers agreed that reductions in the minimum reserve ratio forces the bank to buy marketable securities to cut new loan demands hence, reduces bank loan portfolio, it has reduced the bank deposit rates thus,

reducing customer demand deposits and bank loan portfolio. There was no significant relationship between minimum reserve requirements on loans portfolio performance (p>0.05) and that there was a strong association between the two variables.

Finally, the study sought to determine the effects of Kenya bankers' reference rate and the results revealed that most of credit officers agreed that reduction in Kenya banker's reference rate increases the bank credit demands and bank loan portfolio. They also agreed that it has reduced the bank lending rate thus, increasing bank loan portfolio. From the output it was concluded that there was no statistical significant relationship between Kenya bankers' reference rate and loans portfolio performance (p>0.05).

5.2 Conclusions

The study tested the hypotheses, the four independent variables against the dependent variable in order to establish their relationship and the following conclusions were drawn from the results of the study;

The first hypothesis tested was between the open market operations and loans portfolio performance. The findings of the study revealed that there was no significant relationship between open market operations and loans portfolio performance among commercial banks in Kenya. That is, changes in open market operation policies have least effect on loans portfolio performance.

The second hypothesis tested was between central bank rate and loans portfolio performance. The study findings concluded that there was no significant relationship between central bank rate and loans portfolio performance among commercial banks in Kenya. According to the findings, changes in central bank rate do not necessarily lead to changes in loans portfolio performance.

The third hypothesis tested the relationship between minimum reserve requirements and loans portfolio performance. The study findings showed that there was no significant relationship between minimum reserve requirements and loans portfolio performance, and changes in these reserve requirements least affects the loans portfolio performance.

The last hypothesis tested was between Kenya bankers' reference rate and loans portfolio performance, and from the findings it was concluded that there was no statistical significant relationship between Kenya bankers' reference rate and loans portfolio performance. Hence, any change in this rate does not affect the bank loans portfolio performance.

5.3 Recommendations

On open market operations and loans portfolio performance, the study found out that open market operations have no significant relationship on loans portfolio performance. It is recommended that central bank should re-evaluate the policies governing open markets operations in order to influence bank reserves and market interest rates.

On central bank rate and loans portfolio performance, the study found out that central bank rate has no significant relationship on loans portfolio performance. The study recommends that the central bank rate should be reduced in order to reduce bank lending rates and make borrowing less costly.

On minimum reserve requirements and loans portfolio performance, the study found out that minimum reserve requirement has no significant relationship on loans portfolio performance. The study recommends that the reserve ratios should be reduced to allow banks expand credit.

On Kenya bankers' reference rate and loans portfolio performance, the study found out that Kenya bankers' reference rate has no significant relationship on loans portfolio performance. The study therefore, recommends that Kenya bankers' reference rate be reduced and much with the prevailing inflation rate.

5.3 Suggestions for Further Research

First, the study suggests that further study be done on the effects of open market operations on loans portfolio performance among commercial banks in Kenya, since the study found out that open market operations had the least influence on loans portfolio performance. This should be done using mixed approach methodology to get a clear picture of the influence of this policy on commercial bank loans portfolio performance.

Secondly, the study also suggests that another study should be done basing on all monetary instruments and how it affects bank borrowing behavior and how it influences borrowers' decision making, since the study looked at the effects of selected monetary policies on loans portfolio performance among commercial banks in Kenya.

REFERENCES

Adolphus J.T. and Daerego S.T. (2013). Modeling the Effects of Banking Sector Reforms on Bank Management Practices in Nigeria. *Journal of Emerging Issues in Economics, Finance and Banking* 2, 1, 207-220.

Akambi T.A. and Ajagbe F.A. (2012).Analysis of Monetary Policy on Commercial Banks in Nigeria. *African Journal of Business Management,* 6, 51, 12038-12042.

Allen N.B. (2009). *Why Do Borrowers Pledge Collateral? New Empirical Evidence on the Role of Asymmetric Information.* Wharton Financial Institute Center.

Alper K. (2012). An Empirical Study on Liquidity and Bank Lending. *Central Bank of the Republic of Turkey* Merkez Bank *Working Paper* No. 12/04.

Arnostova K. And Hurnik J. (2005). The Monetary Transmission Mechanism in the Czech Republic. *Czech National Bank, Working Paper Series.*

Axilrod S.H. (2006). Transforming To Open Market Operations. *International Monetary Fund* Economic Issues No.5.

Banka J. (2012).*Documentation on Monetary Policy Instruments and Procedures.* Dublin: Central bank of Ireland.

Bindseil U. (2013).*Monetary Policy Implementation.* European Central Bank and Technical University, Berlin.

Boivin J., Kiley T.M., and Mishkin F.S. (2010). Research and Statistics and Monetary Affairs. Washington D.C: *Finance and Economic Discussion* Series NO. 428, 68-91.

Borio (2012)*. * (BIS), *the Liquidity Coverage Ratio and Policy Implementation.* Quarterly Review, http://.www.bis.org/press/p120108.htm/September, 2012*.*

Brett C. (2011). *Adverse Selection and the Failure of New Banks Tokyo.* Dissertation, University of Oxford.

Cacy J.A (2013). Reserve Requirements and Monetary Control. *Research Division Federal Reserve Bank of St. Louis Working Paper* Series No. 029.

Central bank of Kenya, 2014. *http://www.centralbank.go.ke/index.php/bank-supervision/commercial-banks-mortgage-finance-institutions,* March, 2014.

Cheun S., Mertes .I.V., Weller B. (2009). The Collateral Frameworks of the Euro System. *European Central Bank, Occasional Paper Series 107.*

Cheun S., Mertes I.V.K, and Weller B. (2009). The Collateral Frameworks of the Euro system, the Federal Reserve System and the Bank of England and the Financial Market Turmoil. *European Central Bank Occasional Paper* Series No. 107, 1-47.

Chowdhury W. (2012). Potency of Monetary and Fiscal Policy Instruments. *International Journal of Economics and Financial Issues, 5, 2,111-127.*

Cicarelli M. Et.Al (2013). Heterogeneous Transmission Mechanism Monetary Policy and Financial Fragility in Euro Area. *European Central Bank, Working Paper Series.*

Contessi N. (2013). The Role of Financial Intermediaries in Monetary Policy Transmission. *Journal of Economics and Financial Issues, 4, 3, 95-107.*

Demchuk O. (2014). Monetary Policy Transmission Mechanism. *Journal of Economics and Financial Issues, 4, 3, 95-107.*

Donald K.K. and Delno L.A. (2013).*Proposal and thesis writing: an introduction.* Nairobi: Pauline's publications Africa.

Douglas N.O. and Ambrose J. (2013). Effects of lowering central bank rate on bank's prime rate: an analysis of Kenyan commercial banks. *International journal of humanities and social science,* 7, 9, 97-105.

Evelyn R. (2011). Factors That Cause Non-Performing Loans in Commercial Banks in Tanzania and Strategies to Solve Them. *Journal of Management Policy and Practice,* 12, 237-272.

Financial Sector Deepening (2010). Policy to Improve Access to Financial Services in Africa. *Working paper no. 201.*

Francis M. (2014). Financial Regulation in Kenya: Balancing Inclusive Growth with Financial Stability. *Working Paper* 407.

Gray S. (2011). Central Bank Balances and Reserve Requirements. *International Monetary Fund* Working Paper No. 36.

Hudgins R. (2005).Credit Analysis and Lending, Lending Policies and Procedures. *Journal of Economics and Finance,* 2, 3, 36-52.

Hurlin C. And Kierzenkowsiki R. (2005). *A Theoretical and Empirical Assessment of the Bank Lending Channel and Loan Market Disequilibrium in Poland*. Paris: Dauphine University.

Izere E. (2005). *Perceived Information Asymmetric, Bank Lending Approaches and Perceived Credit Accessing by SME's in Uganda*. Makerere University.

Janet G. (2012). *The Choice of Optimal Monetary Policy Instrument for Kenya*. Nairobi: Kenyatta University.

Jemengich C (2011) Banking law, http://www.scribd.com/doc/79242553/4/evolutionofbankingin Kenya, June, 2011.

Joe P. and Eric S.R. (2013).The Role of Banks in the Transmission of Monetary Policy. *Federal Reserve Bank (FRB) Of Boston, Public Policy Discussion Papers 135.*

John W. (2010).*Why Monetary Policy Is Irrelevant in Africa South of the Sahara.* School Of Oriental and African Studies.

Kato R. and Hisata Y. (2005). Monetary Policy Uncertainty and Market Interest Rates. *Bank of Japan Working Paper Series.*

Keen S. (2009). The Dynamics of the Monetary Circuit in US. *Cambridge University.*

Kimani J. (2013). *Assessment of Effects of Monetary Policies on Lending Behaviour of Commercial Banks in Kenya.* Kenyatta University.

Kosmas N. (2009). The Impact of Effective Credit Risk Management on Bank Survival. *Annals of the University Of Patrosani, Economics, 9, 2,173-184.*

Krugman p. (2012). The Monetary Transmission Channels, Liquidity Conditions and Determinants of Inflation. *Bank of England, Working Paper115.*

Leorne N. (2014). Implications of Monetary Policy for Credit and Investment in Sub-Saharan African (SSA) Countries. *Political Economy Research Institute (PERI), Working Paper* Series 356.

Liu G. and Sceiso N. E. (2009). Business Cycle and Bank Capital Regulations: Base II Procyclicality. *Stellenbosch Economic* Working Papers No. 18/11.

Matemilola B.T. (2014). *The Impact of Monetary Policy on Bank Lending Rate in South Africa*. University Of Malya, Malaysia.

Mello L. And Pisum (2009). The Bank Lending Channel of Monetary Transmission in Brazil. *Economics Department* Working Papers, 711.

Michael D. (2007). *The History of Monetary Policy.* Cambridge University.

Misati Roseline, S. Ouma and Ngoka K. (2014)**.** Financial Architecture and Monetary Policy Transmission in Kenya. *Contemporary Studies in Economic and Financial Analysis, Volume 96) Emerald Group Publishing Limited, pp. 341-364.*

Misati, R. N. and Nyamongo, E. M. (2012). Asset prices and monetary policy in Kenya. *Journal of Economic studies, Vol. 39(4).*

Mishkin F.S. (2007). Housing and the Monetary Transmission Mechanism. *Washington DC; Finance and Economic Discussion Series.*

Mohammed A. (2006). The Link between Monetary Policy and Banks Lending Behaviour: The Ghanaian Case. *Banks and bank systems,* 1, 4, 38-48.

Mwangi N.S (2013). *Effects of Lending Interest Rates on Financial Performance of Deposits Taking Micro-Finance Institutions in Kenya.* University Of Nairobi.

Mwega B. (2014). Monetary Policy and Fiscal Policy Shocks and Economic Growth in Kenya. *International Journal of Economics and Finance, 3, 1, 70-83.*

Mwengei K.B. (2013). Assessing the Factors Contributing To Non-Performing Loans in Kenyan Banks. *European Journal of Business and Management,* 9,301-3014.

Ndirangu N. And Nyamongo M. (2015). Effects of financial innovation on monetary policy in kenya. *International Journal of Economics and Finance, 2, 1,117-126.*

Ngumi J. (2006). Corporate Finance and the Monetary Transmission Mechanism. *International Journal of Economics and Finance, 4, 3, 22-34.*

Ngumo A. (2012). Monetary Policy and Financial Stability: What Role Inprevention and Recovery. *Working paper No. 440.*

Njanike D. (2009). Non-Performing Loans in Commercial Banks. *International Journal of Economics and Finance, 3, 1, 70-83.*

Oda N. and Ueda K. (2005). The Effects of the Bank of Japan's Zero Interest Rate Commitment and Quantitative Monetary Easing on the Yield Curve: A Macro-Finance Approach. *Bank of Japan* Working Paper Series No. 05-E-6.

Olweny T. and Chiluwe M. (2012)**.** The Effect of Monetary Policy on Private Sector Investment in Kenya. Journal Of Applied Finance And Banking*, Vol. 2, 2:239-287.*

Olwey K. and Chiluwe C. (2012). Risk, uncertainty and monetary policy. *European central bank: Working paperseries 207.*

Ondieki D.N. (2013). Effects of Lowering Central Bank Rate on Bank's Prime Rate. *International Journal of Economics and Finance, 5, 3,220-234.*

Patrick B. (2006). *Corporate Finance and the Monetary Transmission Mechanism.* Review of Financial Studies, Colombia University.

Porter N. and Xu T. T. (2013). Money Market Rates and Retail Interest Regulations in China: The Disconnect Between Interbank and Retail Credit Conditions. *Bank of Canada* Working Paper No. 20.

Samiksha C. (2013). *Liquidity Concepts, Instruments and Procedure.* [*http://www.slideshare.net/malerkotla/liquidity-concepts-instruments-and-procedure*](http://www.slideshare.net/malerkotla/liquidity-concepts-instruments-and-procedure) March 2013.

Sichei M., Kamau A. (2012). Demand For Money: Implications for The Conduct of Monetary Policy in Kenya. *International Journal of Economics and Finance, Vol 4, No 8.*

Sichei, M.M, Amanja D.M and Tiriongo, S. (2012). Government Deposits at the Central Bank and Monetary Policy Operations in aMonetary Targeting Framework: A Threshold Autoregressive Model for Kenya. *African Finance Journal, Vol. 14(2).*

Sidaoui J.J and Francia M.R. (2007). The Monetary Transmission Mechanism in Mexico: Recent Developments. *BIS Working Papers* No. 35, 363-394.

Sophocles N.B. and Manthos D.D. (2009).Bank Heterogeneity and Money Policy Transmission. *Bank of Greece, Working Paper* 101

Steven O. (2011). *Credit Supply and Monetary Policy: Identifying the Bank Balance Sheet Channel with Loan Applications*. Tilburg University.

Tianshu Z. (2011). *How Does the Institutional Setting for Creditor Rights Affect Bank Lending and Risk-Taking.*University of Stirling.

Victor O. and Eze O.R. (2013).Effect of Bank Lending Rate on the Performance of Nigerian Deposit Monetary Banks. *International Journal of Business and Management Review,* 1, 1, 34-43.

Vincent O.O. and Gemechu K.B. (2013). Determinants of financial performance of commercial banks in Kenya. *International journal of economics and financial issues, 3, 1,237-252.*

Weller J. (2009). Monetary policy when interest rates are close to zero. *International journal of economics and financial issues, 3, 2, 80-94.*

Were, M. and Samuel, T**.** (2013). "Monetary Policy Response to Economic Crises from African Economy Perspective: An Examination of Kenya's Experience**".** *International Journal of Economics and Research, Vol.4, No.2 pp 13-29.*

Were, M., Nyamongo, E. M., Kamau, A.W., Sichei, M. and Wambua, J. (2014)**.** Assessing the effectiveness of monetary policy in Kenya: Evidence from a macro-econometric model. Economic *modelling, vol. 37:193-201.*

APPENDICES

APPENDIX 1: RESPONDENTS' LETTER.

Dear respondent,

My name is Mutwol Kiprotich Philemon a Masters student of Egerton University pursuing a Degree in Business Administration. I am carrying out a study on effects of monetary policy on loans portfolio performance in Kenya. You have been selected as one of the few people who can provide the necessary information for this study to be successful. You are here provided with a questionnaire for collecting the data to enable the student meet the requirement for the award of a Master's Degree of Egerton University. The information collected will be strictly used for the said purpose and will be held confidential.

Thank you.

APPENDIX 2: RESPONDENTS' QUESTIONNAIRE

SECTION A:

Department /section……………………………………………………….

No.	**Demographic Data**			Tick if appropriate	
1.	Education level	1.	Certificate		
		2.	Diploma		
		3.	Degree		
		1.	Masters		
2.	Work experience	1.	1-5 years		
		2.	5-10 years		
		3.	10-15 years		
		4.	15-20 years		
3.	Position occupied	4.	Administrative		
		5.	Executive		
		6.	Supervisory		
		7.	Others (specify)		

SECTION B:

For each of the items bellow, please tick the number that is appropriate under the five categories which applies: 1-strongly agree, 2-agree, 3-neutral, 4-disagree, and 5-strongly disagree.

OPEN MARKET OPERATIONS

		1	2	3	4	5
i	Extensive government borrowing through treasury bills and bonds reduces amount of funds set aside as investment for lending thus, reducing bank loan portfolio					
ii	Extensive government borrowing through treasury bills and bonds reduces the bank ability to lend to private sector thus, reducing bank loan portfolio					
iii	Extensive government borrowing through treasury bills and bonds increases the bank lending rate therefore, reducing bank loan portfolio					
iv	Extensive government borrowing through treasury bills and bonds reduces the bank reserves hence, constraining lending and reducing bank loan portfolio					
v	Extensive repurchase of government treasury bills and bonds increases amount of funds set aside as investment for lending and increasing bank loan portfolio					
vi	Extensive repurchase of government treasury bills and bonds increases the bank ability to lend to private sector and increases the bank loan portfolio					
vii	Extensive repurchase of government treasury bills and bonds reduces the bank lending rate and increases bank loan portfolio					
viii	Extensive repurchase of government treasury bills and bonds increases the bank reserves and increases bank loan portfolio					

For each of the items bellow, please tick the number that is appropriate under the five categories which applies: 1-strongly agree, 2-agree, 3-neutral, 4-disagree, and 5-strongly disagree.

CENTRAL BANK DISCOUNT RATE

		1	2	3	4	5
i	Increase in Central bank discount rate increases the bank lending rate and market interest rates hence, reducing the size of bank loans					
ii	Increase in Central bank discount rate reduces the bank borrowing from the central bank and other banks thus, reducing the bank loan portfolio					
iii	Increase in Central bank discount rate reduces bank reserves and the size of loan portfolio					
iv	Increase in Central bank discount rate reduces the bank interest rate spread and bank loan portfolio					
v	Reduction in Central bank discount rate reduces the bank lending rate and market interest rates therefore, increasing the size of bank loan portfolio					
vi	Reduction in Central bank discount rate increases the bank borrowing from the central bank and other banks thus, increasing the amount of bank loan portfolio					
vii	Reduction in Central bank discount rate increases the bank reserves and bank loan portfolio					
viii	Reduction in Central bank discount rate increases the bank interest rate spread and bank loan portfolio					

For each of the items bellow, please tick the number that is appropriate under the five categories which applies: 1-strongly agree, 2-agree, 3-neutral, 4-disagree, and 5-strongly disagree.

MINIMUM RESERVE REQUIREMENTS

		1	2	3	4	5
i	Increase in the minimum reserve ratio forces the bank to convert marketable securities to meet new loan demands and therefore, increasing the bank loan portfolio					
ii	Increase in the minimum reserve ratio makes the bank to lend to economic sectors discriminatively hence, reducing the bank loan portfolio					
iii	Increase in the minimum reserve ratio increases the bank deposit rates thus, increasing bank customer deposits and bank loans portfolio					
iv	Increase in the minimum reserve ratio Calls for tightening of credit policy and reduction in bank loan portfolio					
v	Reductions in the minimum reserve ratio forces the bank to buy marketable securities to cut new loan demands hence, reduces bank loan portfolio					
vi	Reductions in the minimum reserve ratio makes the bank to lend to economic sectors equitably thus, increases the bank loan portfolio					
vii	Reductions in the minimum reserve ratio reduces the bank deposit rates thus, reducing customer demand deposits and bank loan portfolio					
viii	Reductions in the minimum reserve ratio reduces tightening of credit policy and increases bank loan portfolio					

For each of the items bellow, please tick the number that is appropriate under the five categories which applies: 1-strongly agree, 2-agree, 3-neutral, 4-disagree, and 5-strongly disagree.

KENYA BANKERS REFERENCE RATES

		1	2	3	4	5
i	Reduction in Kenya bankers reference rate (KBRR) increases the bank credit demands and bank loan portfolio					
ii	Reduction in Kenya bankers reference rate (KBRR) reduces the bank lending rate thus, increasing bank loan portfolio					
iii	Reduction in Kenya bankers reference rate (KBRR) increases the bank reserves and bank loan portfolio					
iv	Increase in Kenya bankers reference rate (KBRR) reduces the bank credit demands and bank loan portfolio					
v	Increase in Kenya bankers reference rate (KBRR) increases the bank lending rate therefore, reducing bank loan portfolio					
vi	Increase in Kenya bankers reference rate (KBRR) reduces the bank reserves and bank loan portfolio					

SECTION C:

For each of the items bellow, please tick the number that is appropriate under the five categories which applies: 1-very significant, 2-significant, 3-neutral, 4-not significant, and 5-least significant.

JOINT EFFECT OF MONETARY POLICY

	What is the overall effect of each of the variables on loans portfolio performance	1	2	3	4	5
i	Open market operations					
ii	Central bank rate					
iii	Minimum reserve requirements					
iv	Kenya bankers reference rate					

Please rank the monetary policy instruments according to its influence on loans portfolio performance under the four categories which implies:

Greatest influence 1 and the least influence 4.

		Rank
i	Open market operations	
ii	Central bank rate	
iii	Minimum reserve requirements	
iv	Kenya bankers reference rate	

APPENDIX 3: SECONDARY DATA COLLECTION SHEET

	2011	2012	2013	2014	2015
Total bank assets					
Total bank Loans					
Monetary Policy Actions					
Open market operations					
Minimum reserve requirements					
Central bank rate					
Kenya banks' reference rate					

APPENDIX 4: BANK BRANCHES OPERATING IN ELDORET

1. Kenya Commercial Bank
2. Standard Chartered Bank Kenya Limited
3. Barclays Bank Of Kenya Limited
4. Bank Of Baroda Kenya Limited
5. Commercial Bank Of Africa
6. Prime Bank Limited
7. Co-Operative Bank Of Kenya Limited
8. National Bank Of Kenya Limited
9. Oriental Commercial Bank Limited
10. Bank Of Africa Kenya Limited
11. Consolidated Bank Of Kenya Limited
12. Credit Bank Limited
13. Trans-National Bank Limited
14. Chase Bank Limited
15. CFC Stanbic Bank Kenya Limited
16. African Banking Corp. Bank Ltd
17. NIC Bank Limited
18. ECO Bank Limited
19. Equatorial Commercial Bank Limited
20. Paramount Universal Bank Limited
21. Guaranty Trust Bank (K) Ltd
22. Guardian Bank Limited
23. I&M Bank Limited
24. Housing Finance Bank
25. Diamond Trust Bank Limited
26. K-Rep Bank Limited
27. Equity Bank Limited
28. Family Bank Limited
29. Post-Bank Kenya Limited
30. FINA Bank Limiteds

Source: Kenya Banker's Association (2015)