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

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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. 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. 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.

Keywords: Open market operations, central bank rate, minimum reserve requirements and Kenya bankers’ reference.
INTRODUCTION
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; open market operations, central bank rate, minimum reserve requirements and Kenya bankers’ reference rate.

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).

LITERATURE REVIEW
Theories

The study was guided by the following theories:

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).
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).

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.

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) undertook 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.

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.

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.

**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.

![Conceptual Framework Diagram]

Source: Researcher

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

**RESEARCH METHODOLOGY**

The study adopted a descriptive survey design. 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. 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. 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. 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 Cramér’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.

RESULTS AND DISCUSSION

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 1: Demographic Information

<table>
<thead>
<tr>
<th>Background Statistics</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education Level</td>
<td></td>
</tr>
<tr>
<td>Certificate</td>
<td>13.3</td>
</tr>
<tr>
<td>Diploma</td>
<td>13.3</td>
</tr>
<tr>
<td>Degree</td>
<td>36.7</td>
</tr>
<tr>
<td>Masters</td>
<td>36.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.0</strong></td>
</tr>
<tr>
<td>Work Experience</td>
<td></td>
</tr>
<tr>
<td>1-5 years</td>
<td>36.7</td>
</tr>
<tr>
<td>5-10 years</td>
<td>30.0</td>
</tr>
<tr>
<td>10-15 years</td>
<td>23.3</td>
</tr>
<tr>
<td>15-20 years</td>
<td>10.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.0</strong></td>
</tr>
<tr>
<td>Position Occupied</td>
<td></td>
</tr>
<tr>
<td>Administrative</td>
<td>30.0</td>
</tr>
<tr>
<td>Executive</td>
<td>30.0</td>
</tr>
<tr>
<td>Supervisory</td>
<td>40.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

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.
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.

Open Market Operations and loans portfolio performance

Table 2: PHI and Cramer's V for Open Market Operations and loans portfolio performance

<table>
<thead>
<tr>
<th>Correlation</th>
<th>Value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHI</td>
<td>0.566</td>
<td>0.649</td>
</tr>
<tr>
<td>Cramer’s V</td>
<td>0.327</td>
<td>0.649</td>
</tr>
</tbody>
</table>

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.

Central Bank rate and loans portfolio performance

Table 3: PHI and Cramer's V for Central Bank Rate and loans portfolio performance

<table>
<thead>
<tr>
<th>Correlation</th>
<th>Value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHI</td>
<td>0.591</td>
<td>0.574</td>
</tr>
<tr>
<td>Cramer’s V</td>
<td>0.341</td>
<td>0.574</td>
</tr>
</tbody>
</table>

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.

Minimum Reserve Requirements and Loans Portfolio performance

Table 4: PHI and Cramer's V for Minimum Reserve Requirements and Loans Portfolio performance

<table>
<thead>
<tr>
<th>Correlation</th>
<th>Value</th>
<th>Approx. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHI</td>
<td>0.612</td>
<td>0.509</td>
</tr>
<tr>
<td>Cramer’s V</td>
<td>0.353</td>
<td>0.509</td>
</tr>
</tbody>
</table>

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 ($\phi=0.612$). 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.

Kenya bankers’ Reference Rate and loans portfolio performance

Table 5: Phi and Cramer's V for Kenya bankers’ Reference Rate and loans portfolio performance

<table>
<thead>
<tr>
<th>Correlation</th>
<th>Value</th>
<th>Approx. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phi</td>
<td>.506</td>
<td>.809</td>
</tr>
<tr>
<td>Cramer’s V</td>
<td>.292</td>
<td>.809</td>
</tr>
</tbody>
</table>

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.

Test of Hypotheses

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

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 4.6

Table 6: Chi-Square Tests for Open Market Operations and loans portfolio performance

<table>
<thead>
<tr>
<th>Chi-square</th>
<th>Value</th>
<th>df</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>10.485</td>
<td>12</td>
<td>.574</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>12.069</td>
<td>12</td>
<td>.440</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.539</td>
<td>1</td>
<td>.463</td>
</tr>
</tbody>
</table>

Source: Field Data (2016)

The study findings shows that Pearson Chi-Square (χ² = 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.

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 4.7

### Table 7: Chi-Square for Central bank rate and loans portfolio performance

<table>
<thead>
<tr>
<th>Chi-square</th>
<th>Value</th>
<th>df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>9.619</td>
<td>12</td>
<td>0.649</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>10.207</td>
<td>12</td>
<td>0.598</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>0.393</td>
<td>1</td>
<td>0.531</td>
</tr>
</tbody>
</table>

Source: Field Data (2016)

The study results shows that the chi-square was ($\chi^2 = 9.619$, $p = 0.649 > 0.05$). 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.

### 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 4.8

### Table 8: Chi-Square Tests Minimum Reserve Requirements and loans portfolio performance

<table>
<thead>
<tr>
<th>Chi-square</th>
<th>Value</th>
<th>df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>11.234</td>
<td>12</td>
<td>0.509</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>14.024</td>
<td>12</td>
<td>0.299</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>2.083</td>
<td>1</td>
<td>0.149</td>
</tr>
</tbody>
</table>

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 ($\chi^2 =11.234, p = 0.509 > 0.05$). 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.
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 4.9

Table 9: Chi-Square Tests for Kenya bankers’ reference rate and loans portfolio performance

<table>
<thead>
<tr>
<th>Chi-square</th>
<th>Value</th>
<th>df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>7.690</td>
<td>12</td>
<td>.809</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>9.547</td>
<td>12</td>
<td>.656</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.934</td>
<td>1</td>
<td>.334</td>
</tr>
</tbody>
</table>

Source: Field Data (2016)

From the above results there was no statistical significant relationship between Kenya bankers’ reference rate and loans portfolio performance ($\chi^2=7.690$, 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.

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

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).

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.

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.

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


