Effect of Loan Portfolio Growth on Financial Performance of Commercial Banks in Kenya

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Abstract : Lending is the principal activity for commercial banks. Growth in a bank’s loan portfolio is therefore a key measure of banks performance. The general objective of this study was to evaluate the effect of growth in loan portfolio on financial performance of commercial banks in Kenya. Specifically the study was seeking to evaluate the effect of growth in commercial bank’s loan book, the effect of change in banks asset quality, the effect of change in banks liquidity and the effect of change in banks capital adequacy on the financial performance of commercial banks in Kenya. The study used a correlational research design. The population of interest consisted of the 44 commercial banks in Kenya. A sample of 31 commercial banks was selected. The study covered a five-year period from 2011 to 2015. The study used primary and secondary data. A questionnaire was used to collect the primary data while secondary data was obtained from published financial statements of commercial banks. Data was analyzed using descriptive statistics and summarized in frequency tables. Multiple linear regression was also used in the analysis. The study found that growth in loan portfolio had a positive effect on financial performance of commercial banks in Kenya, but the effect was not significant. The effect of loan growth on financial performance of commercial banks in subsequent years was found to be adverse. This study found that the quality of banks assets had a positive effect on financial performance of commercial banks in Kenya. The effect of asset quality was found to be statistically significant. It was found that liquidity management had negative effect on financial performance of commercial banks, that banks that hold a high level of liquid assets perform poor financially. However the effect of liquidity management was not significant. The study found that capital adequacy had a positive effect on financial performance of commercial banks. The effect of capital adequacy was significant. The study concluded that growth in a bank’s loan portfolio had a positive and significant effect on financial performance of commercial banks in Kenya. Finally the study concluded that amount of bank capital has a positive and significant effect on financial performance of commercial banks in Kenya. The study recommended that commercial banks should strategically execute their loan portfolio growth strategies so as to minimize the problem of loan losses in subsequent years. It also recommended that to enhance financial performance banks should ensure they maintain a high quality loan portfolio.

Key Words:  Financial Performance, Portfolio, Liquidity and Capital Adequacy

Objectives of the study
The general objective was to examine the effect of growth in Kenya’s commercial banks loan portfolio on financial performance.

1.3.2 Specific Objectives
The specific objectives were:

i To determine the effect of growth in commercial bank’s loan portfolio on financial performance of commercial banks in Kenya.

ii To determine the effect of asset quality on financial performance of commercial banks in Kenya.

2.2 Theoretical Framework
Several theories have been suggested to explain growth in commercial bank lending. This study is anchored on three theories namely; institutional memory hypothesis (Berger and Udell, 2004), financial fragility hypothesis (Amri, Prabha and Wihlborg, 2012), financial accelerator theory (Bernanke and Gertler, 1989) and information content hypothesis (Zemel, 2012).

2.2.1 Institutional Memory Theory
Berger and Udell (2004) articulated the institutional memory theory linking loan growth to credit standards. The theory explains how a bank loan grows due to easing of credit standards as time lapses since their last credit bust. The capacity of loan departments to evaluate risk and identify
potential future problems deteriorates as time passes since their last learning experience with problem loans. Early in a bank’s lending cycle the lessons of the banks last bust are still fresh in the memory of loan officers who witnessed the ex-post realization of their prior loan decisions. Foos et al (2010) noted that due to passage of time since the last loan bust the loan officer skills tend to deteriorate.

The factor causing deterioration in credit standards could be attributed to a number of factors. First, decrease in fraction of experienced loan officers. New loan officers are hired and trained to replace experienced officers who leave the bank or are promoted to senior positions elsewhere in the bank. The new officers lack the experience of loan portfolio bust. Also new loan officers may also be hired to service increased loan demand as time passes since the banks last bust, further reducing the average experience of the staff. Another factor driving the deterioration in loan officer ability is the atrophy of lending skills by some individual loan officers who have had the experience of a loan bust, but have begun to forget the lessons of the past. This may affect some experienced officers more than others may. Further, a banks’ loan review function is likely to functions less effectively since the banks last bust because there are fewer observed problem loans to use in evaluating loan officers. This worsens the agency problem between loan officers and bank management making loan review process less effective (Berger and Udell, 2004).

2.2.2 Financial fragility

Amri, Prabha and Wihlborg (2012) financial fragility hypothesis explains the link between high loan growth subsequent banking crises. Indicators of financial fragility are associated with distortions or imbalances in the financial sector. The theory identify six potential indicators of financial fragility that may lead to a banking crises following periods of high loan growth; high leverage of firms and households; financial liberalization; surge in capital inflows; asset price booms; strong explicit or implicit protection of banks’ creditors and weak banking regulation and supervision. During economic booms, demand for credit rises as households increase consumption and firms increase production, leading to a surge in asset prices and net worth along with optimistic expectation about the future.

Amri et al (2012) noted that the rapid growth in loans and asset prices observed during boom times is transitory in nature. When profit expectations are not realized, asset prices and the net worth of borrowing firms fall. Lenders face loan losses and, as a result, confidence in the financial sector evaporates and problems start to emerge when boom turns into bust.

Tornell and Westermann (2006) argued that financial liberalization increases the propensity of bankers to engage in risky lending even before they have developed appropriate risk monitoring and management systems for the new environment.

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Dependent variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loan growth</td>
<td>Financial Performance</td>
</tr>
<tr>
<td>• %Change in bank gross loans</td>
<td>• Return on Assets</td>
</tr>
<tr>
<td>• %Change in number of loan accounts</td>
<td>• Net interest margin</td>
</tr>
<tr>
<td>Asset quality</td>
<td></td>
</tr>
<tr>
<td>• Nonperforming loans</td>
<td></td>
</tr>
<tr>
<td>• Loan loss provision</td>
<td></td>
</tr>
</tbody>
</table>

Figure 2.1 Conceptual Framework
RESEARCH METHODOLOGY

3.1 Introduction
This chapter discusses the research design that was used in the study. The target population, sampling technique, sample size, research instruments, data collection procedures, pilot test, data analysis and presentations, statistical model and testing that was used in the study.

3.2 Research Design
A correlational research design was used to explore the relationship between the factors involved. According to Zikmund (2003), researchers tend to use correlational studies in seeking certain types of evidence to help them understand and predict relationships. Correlational study attempts to establish that when one thing or event occurs, it is due to another factor. In this case, the performance of the banks was linked to the lending decisions that these banks make. Therefore, a correlational research design was justified for this study since it was expected that changes in bank specific factors causes change in performance of banks.

3.3 Target Population
Kothari (2004) define population as the total of items about which information is desired. The population of interest consisted of the 44 commercial banks in Kenya. The Kenyan banking sector has been characterized by significant growth in bank loan book year on year. Mugenda (2004) assert that target population is that population to which a researcher wants to generalize the results of his study. The target population was the 44 commercial banks operating between 2011 and 2015 . This period was selected as it was a period of rapid credit expansion by commercial banks.

3.4 Sampling Frame
Howitt and Cramer (2011) pointed that for researchers to generalize findings from the sample to the population they must carefully select the survey sample. The sampling frame for this study consisted of the senior loan officers of commercial banks in Kenya. The senior loan officers were selected since they were the ones that finally approve loan applications and drives loan growth.

3.6 Research Instruments
This research study made use of primary and secondary data. Primary data are those that are collected afresh and for the first time, and thus happen to be original in character (Kothari, 2004). Primary data was collected using a questionnaire. The questionnaire was mailed or delivered to respondents who were expected to read and understand the questions and write down the reply in the space meant for the purpose in the questionnaire itself. The respondents had to answer the questions on their own (Cooper &Schindler, 2011). Secondary data sources were used to obtain data relating to the dependent variable. A data collection sheet-Appendix 6 was used for collecting secondary data.

3.7 Data Collection Procedures
Data collection procedure involved designing a questionnaire. The questionnaire was first piloted as described in section 3.8 below. The questionnaire was then distributed to the sampled commercial banks. A self-administered questionnaire was used in which the respondents completed the questionnaire on their own time at their convenience. An email reminder was sent to the respondents five days after the questionnaires were delivered. The questionnaire was then collected four days after the reminder. Secondary data was collected by scrutinizing and recording the relevant data from the published financial statements of the commercial banks.

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction
This chapter focused on the analysis of the data collected and discussions of the findings. The chapter was organized to start with the result of pilot testing followed by an analysis of the response rates, then analysis of findings followed by a discussion of the results. Data was analyzed using SPSS and presented using tabulations. Multiple regression technique was also used in the analysis.

4.4 Analysis of Respondent Opinions
4.4.1: Respondent’s opinion on the relationship between growth in commercial banks loans portfolio and financial performance of commercial banks in Kenya
To determine the effect of growth in commercial banks loan portfolio on financial performance, the respondents were asked to indicate whether they agreed or disagreed with some statements. The results obtained are shown on table 4.5 below
Table 4.5: Respondent’s opinions on the relationship between commercial banks loan portfolio and financial performance

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth in a bank’s loan portfolio adversely affects the banks financial performance in subsequent years</td>
<td>53</td>
<td>3.5</td>
<td>0.7</td>
</tr>
<tr>
<td>Growth in bank’s loan portfolio results in increase in nonperforming loans in subsequent years</td>
<td>53</td>
<td>3.5</td>
<td>0.7</td>
</tr>
<tr>
<td>Loan portfolio diversification helps reduce the problem of bad loans as the bank’s loan portfolio grows</td>
<td>53</td>
<td>2.3</td>
<td>1.2</td>
</tr>
<tr>
<td>Commercial banks lower their lending rate in order to grow their loan book</td>
<td>53</td>
<td>2.9</td>
<td>1.0</td>
</tr>
<tr>
<td>Commercial banks lend more cautiously following periods of heavy losses occasioned by bad loans</td>
<td>53</td>
<td>3.4</td>
<td>0.5</td>
</tr>
<tr>
<td>Overall</td>
<td></td>
<td>3.1</td>
<td>0.8</td>
</tr>
</tbody>
</table>

The overall standard deviation of 0.8 indicates that there were no significant variations in the responses.

4.4.2: Respondents opinion on the relationship between commercial banks asset quality and financial performance of commercial banks in Kenya

Results on whether the respondents agreed or disagreed to various statements relating to the effect of asset quality on financial performance of commercial banks are presented in table 4.7 below and table 4.8 in appendix 5.

Table 4.7: Respondent’s opinions on the relationship between commercial banks asset quality and financial performance

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The quality of a banks’ loan portfolio positively affect financial performance of commercial banks</td>
<td>53</td>
<td>3.8</td>
<td>0.5</td>
</tr>
<tr>
<td>Loan portfolio diversification determines the quality of assets held by a bank</td>
<td>53</td>
<td>2.8</td>
<td>1.7</td>
</tr>
<tr>
<td>The quality of a banks’ loan portfolio deteriorates following periods of rapid lending</td>
<td>53</td>
<td>3.1</td>
<td>0.9</td>
</tr>
<tr>
<td>Increase in nonperforming loans affects financial performance of commercial banks adversely</td>
<td>53</td>
<td>4.3</td>
<td>1.6</td>
</tr>
<tr>
<td>In periods of economic expansion banks do not pay much attention to borrowers’ credit history</td>
<td>53</td>
<td>3.4</td>
<td>0.8</td>
</tr>
<tr>
<td>Overall</td>
<td></td>
<td>3.5</td>
<td>1.1</td>
</tr>
</tbody>
</table>

Table 4.7 shows that the respondents strongly agreed that the quality of banks loan portfolio positively affects the financial performance of commercial banks (3.8). The respondents strongly agreed that in nonperforming loans affects the financial performance of banks adversely with a Likert mean of 4.3. Further the respondents agreed that in period of economic expansion banks do not pay much attention to borrowers credit history (3.4). The overall standard deviation of 1.1 indicates that there were significant variations in the responses.
4.5 Correlation Analysis between Return on assets, Loan growth and Asset quality

A correlation coefficient is a statistic that describes the degree of linear association between two variables. The table below shows the correlation between return on assets, loan growth, asset quality, liquidity and capital adequacy.

Table 4.13 Correlation Matrix: Correlation between Return on Assets, Loan growth and Asset quality,

<table>
<thead>
<tr>
<th></th>
<th>ROA</th>
<th>Loan growth</th>
<th>Asset quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>Pearson Correlation 1</td>
<td>.781</td>
<td>.553</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.019**</td>
<td>.092</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>53</td>
<td>53</td>
</tr>
<tr>
<td>Loan growth</td>
<td>Pearson Correlation 1</td>
<td>.227</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.102</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>53</td>
<td>53</td>
</tr>
<tr>
<td>Asset quality</td>
<td>Pearson Correlation 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>53</td>
<td>53</td>
</tr>
</tbody>
</table>

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

Table 4.13 shows the correlation coefficients between return on assets and loan growth and asset quality. Correlation between return on assets and loan growth was found to be 0.718 with a p-value of 0.019. This result suggested that there was a strong positive correlation between return on assets and loan portfolio growth. Since p-value 0.019 is less than 0.05, the correlation was significant at 5% level of significance. Correlation coefficient between return on assets and asset quality was found as 0.553 with a p-value of 0.092. This indicates a moderately strong positive correlation between return on assets and asset quality. However since the p-value 0.092 is greater than 0.05, the relationship is not significant at 5% level. The correlation coefficient between return on asset and capital adequacy was found to be 0.436 with p-value of 0.009. The result showed that return on assets and capital adequacy was moderately positively correlated. The correlation is significant at 5% level of significance since p-value 0.009 is less than 0.05.

4.6 Effects of Growth in Loan Portfolio and Asset Quality on Financial Performance of Commercial Banks in Kenya

To evaluate the effect of growth in loan portfolio and asset quality on the financial performance of commercial banks, the respondents’ response to these variables were regressed on a five year average return on assets for the commercial banks. The results of this regression are presented below.

Table 4.14 Regression Coefficients

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>95% Confidence Interval for B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>(Constant)</td>
<td>1.184</td>
<td>3.157</td>
<td>.375</td>
</tr>
<tr>
<td>Loan growth</td>
<td>.066</td>
<td>.468</td>
<td>.009</td>
</tr>
<tr>
<td>Asset quality</td>
<td>.607</td>
<td>.061</td>
<td>.149</td>
</tr>
</tbody>
</table>

Return on asset was regressed on loan portfolio growth and asset quality. Table 4.14 reported the regression coefficients. The resulting regression model was of the form:
The regression results in table 4.23 indicate that return on asset would increase by 0.607% for every unit increase in the quality of banks assets. The coefficient of asset quality 0.607 indicates that asset quality had a positive effect on return on assets. The coefficient of loan portfolio growth 0.066 indicates the percentage increase in return on assets for a percentage increase in a banks’ loan portfolio. However, the effect was not significant at 5% level of significance since the p-value 0.709>0.05.

4.6.2 The effect of asset quality on financial performance of commercial banks in Kenya

The following sections interpret the regression coefficients in terms of their effect on the dependent variable.

4.6.1 The effect of growth in commercial bank’s loan portfolio on financial performance of commercial banks in Kenya

From table 4.14 loan growth had a coefficient of 0.066 with a p-value of 0.709. This indicated that loan growth had a positive effect on return on assets. The coefficient of loan portfolio growth 0.066 indicates the percentage increase in return on assets for a percentage increase in a banks’ loan portfolio. However, the effect was not significant at 5% level of significance since the p-value 0.709>0.05.

4.6.2 The effect of asset quality on financial performance of commercial banks in Kenya

The regression results in table 4.23 indicate that asset quality had a coefficient of 0.607 with a p-value of 0.031. The result indicates that asset quality had a positive effect on return on assets. The coefficient of asset quality 0.607 indicates that return on asset would increase by 0.607% for every unit increase in the quality of banks assets. The effect of asset quality on return on assets is significant at 5% level since the p-value 0.031 is less than 0.05.

4.7 Discussion

4.7.1 Effect of growth in commercial bank’s loan portfolio on financial performance of commercial banks in Kenya

This study found that growth in a bank’s loans portfolio adversely affects the banks financial performance in the subsequent years. It also found that growth in banks’ loan portfolio results in increase in nonperforming loans in subsequent years. These findings support the findings by Foos et al. (2010) that current loan growth leads to increases in loans losses in subsequent years. Diversification is seen as a technique of minimizing exposure to loss. However the findings of this study failed to support that loan portfolio diversification reduces the problem of bad loans as banks grow their loan portfolios. Interest rates provide a pricing mechanism for loans in financial markets. As generally indicated by the law of demand, lower prices (interest rates for the case of loans) would help attract more demand. This study found that commercial banks lower their lending rates so as to attract more borrowers and grow their loan book. The study also found that commercial banks lend more cautiously following periods of heavy loans losses occasioned by bad loans which seems to render support to the institutional memory hypothesis (Berger and Udell, 2004). The result of regression analysis showed that loan portfolio growth had a positive effect on return on assets.

4.7.2 Effect of asset quality on the financial performance of commercial banks in Kenya

The quality of assets for a bank depends largely on the quality of its loan portfolio as loans are the major asset of commercial banks from which they generate income. Therefore the quality of bank loan determines the profitability of banks. This study found that the quality of banks loan portfolio positively affects the financial performance of commercial banks. This is consistent with the finding by Ongore and Kasu (2013) nonperforming loans (implying poor asset quality) had negative effect on financial performance. The study also concur with the findings of Onuonga (2014) that loan portfolio diversification determines the quality of assets held by banks. Similar to Ongore and Kasu (2013) the study noted that increase in nonperforming loans affects the financial performance of banks adversely. Further consistent to the institutional memory hypothesis of Berger and Udell (2004) the study found that in period of economic expansion banks do not pay much attention to borrowers’ credit history. This means that commercial banks in Kenya that maintain high quality assets perform better financially.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.2 Summary of findings

The study found that growth in loan portfolio increases nonperforming loans in the subsequent years. Also the study failed to establish whether loan portfolio diversification helps to reduce the problem of bad loans as most of the respondents were not sure. The study found that commercial banks lower their lending rates in order to grow their loan book and that commercial banks lend more cautiously following periods of heavy losses occasioned by bad loans. The result of regression indicated that loan portfolio growth had a positive effect of return assets but the effect was not significant.

This study found that the quality of banks loan portfolio positively affect the financial performance of commercial banks. It found that loan portfolio diversification determines the quality of assets held by banks. Further the study found that the quality of banks loan portfolio deteriorates following periods of rapid lending. It also found that increase in nonperforming loans adversely affect the
financial performance of commercial banks. In addition the study found that in periods of economic expansion banks do not pay much attention to borrowers’ credit history. The result of regression established that asset quality had a positive effect on financial performance of commercial banks and the effect was significant.

5.3 Conclusions
The study concluded that growth in a bank’s loan portfolio had a positive effect in the current year but the effect in the subsequent years was adverse. Further the study concluded the following; growth in loan portfolio increases the amount of nonperforming loans in the subsequent years, commercial banks tend to lower their lending rates in order to grow their loan book and that commercial banks exercise caution in lending following periods of heavy losses occasioned by bad loans.

The study reached the following conclusions; the quality of bank assets had a positive effect on return on assets and the effect was significant. The quality of a banks’ loan portfolio positively affected the financial performance. Loan portfolio diversification was an important determinant of the quality of assets held by banks.

5.4 Recommendations
Based on the first objective the study recommended that to improve financial performance commercial banks should grow their loan portfolios. However such growth should be strategically executed so as to minimize the problem of nonperforming loans in subsequent years. Also banks should exercise caution in lending in all periods to avoid reacting to loan losses occasioned by bad loans. Also the study recommends that managers should re-evaluate the importance of loan portfolio diversification in reducing the problem of bad loans.

REFERENCES


