Contribution of Loan Portfolio Management on Financial Performance of Commercial Banks in Rwanda

A Case Study of Bank of Kigali-Rwanda

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Abstract- Commercial banks have an important role in the economy and the society as a whole. Their central roles are to make the community’s surplus of deposits and investments useful by lending it to people for various investment purposes like company growth, education, houses. The main purpose of this study was to assess the extent to how credit portfolio management affecting the financial performance of Bank of Kigali-Rwanda. The study used qualitative and descriptive approaches, a sample size is 51 employees who have been selected using purposive sampling technique. Data were collected through questionnaire, interview guide and documentary while analysis was done using descriptive statistical method. The findings discovered that BK looks the credit-worthiness of the customer base and business, and the specific criteria that customer must meet before receiving the proposed credit arrangement. The influences of borrower-specific factors on financial performance of BK determined by credit period that refers to the period of time in which the credit is granted in BK; the interest rates charged by BK may affect the loan performance. The effects of selection Risk Analysis to financial performance of BK shown by how BK is shifting loans risks from their balance sheets to insurance companies to recover the loans, loan risk transfer enhance financial stability, collateralized debt obligation and assets backed securities help BK to proactively manage their portfolio, and loan derivatives of BK that remain a small but rapidly growing market. Furthermore, the respondents confirmed that the financial performance achieved by Bank of Kigali depends on an effective loan portfolio management.

Index Terms- Loan portfolio management, financial performance, commercial banks

I. INTRODUCTION

Commercial banks perform a very important service to many sectors of the economy by providing facilities for the pooling of savings and making them available for economically and socially desirable purposes. This is beneficial to their customers since they are rewarded by payment of interest on their savings, which are safe and a high in liquid form (Brick, 2006). Lending in worldwide is the principal business activity for most commercial banks, and the loan portfolio is typically the largest asset and the predominate source of revenue. As such, it is one of the greatest sources of risk to bank’s safety and soundness. Whether due to lax credit standards, poor portfolio risk management, or weakness in the economy, loan portfolio problems have historically been the cause of bank losses and failures. Effective management of the loan portfolio and credit function is fundamental to a bank’s safety and soundness. Loan portfolio management, is the process by which inherent risks in the credit process are managed and controlled.

Loan portfolio management involves evaluating the steps which the bank management takes to identify and control risks throughout the credit process. The assessment strongly focuses on what management does to identify issues before they become problems. In recent years, more and more globally active financial institutions in the US and Europe have been proactively engaged in LPM, rebalancing their loan asset portfolios while utilizing the credit market’s functions to the full (Kraft & Jankov, 2005).

In the second half of the 1980s, US commercial banks faced declines in capital adequacy ratios and rising funding costs against the background of non-performing loans. As a result, bank managements became highly aware of the need to shrink their balance sheets and boost their earning power, whereby they optioned to sell off their non-performing loans and reinforce their loan risk management systems, and these moves marked the starting point for the subsequent development of the US credit market. In the 1990s, the major commercial banks through all these experiences they established LPM departments within their risk management divisions, and started proactive initiatives to reduce loan concentration risk aimed at their large corporate loan portfolios. Most activity in the early stages was at the individual company level and involved control of the loan approval process, loan sales and hedging through single-name credit default swaps (CDS) (Smithson & Mengle, 2006).

In developing countries of Africa and some of Asia, lending is the principal business activity for most financial institutions, where the loan portfolio is typical the largest asset and the predominate source of revenue. Therefore, effective management of loan portfolio’s loan risk requires that the board and management understand and control the bank’s risk profile and its loan culture. To accomplish these, they must understand the portfolio’s product mix, industry and geographic concentrations,
average risk ratings, and other aggregate characteristics. They must be sure that the policies, processes, and practices implemented to control the risks of individual loans and portfolio segments are sound (Carletti, & Daltung, 2006).

The Government of Rwanda with central bank has developed in 2005 the policies lead banks management where every financial institution uses various techniques of mitigating credit risk. The most common techniques are collateral, guarantees, netting off of loans against deposits of the same counter-party. The payments are made against the receipts and then the balance is paid hence reducing the credit risk. Credit Insurance, factoring, debt collection, surety bonds, and letter of credit are other techniques widely used (Central Bank report, 2008). There is a need of an effective loan portfolio management, where loans should be well managed to minimize potential risks that may affect the bank’s performance in Rwanda. The Rwandan banking system recorded a considerable increase over the years. The improvement in profitability can be explained by BNR continuous monitoring of the banking sector profitability followed by the improvement in asset quality management that lead to capital adequacy ratio (BNR, 2014).

Bank of Kigali as a commercial bank deals with banking activities as well as lending out money, is more concerned with well management of its credit. BK has the committee comprises of four independent non-executive board members and meets on quarterly basis or more frequently as its business demands. The committee is responsible for monitoring and managing the bank’s balance sheet to ensure that various business risks such as liquidity, capital, market and currency risks are monitored and mitigated in compliance with the bank’s policies and central bank guidelines (BK, 2016).

1.1 Statement of the Problem

BK is a commercial bank which presents the profit evolution in previous years as indicated by its annual financial reports, where in 2012, NP was 33.89% and in 2013, net profit increased to 33.13% which was reduced in 2014 until on 36.17%, BK in 2015, NP was 36.46%. This profit depends on several factors like; good location, market penetration, enough capital investment, integration in capital market, qualified staff, and doing an appropriate loan portfolio management (BK, 2017). Therefore, the central questions of this study are how does the loan approval process, borrower-specific factors, and selection Risk Analysis could affect the financial performance of Bank of Kigali as commercial bank in Rwanda. It however the study is all about the contribution part of loan portfolio management on financial performance of Bank of Kigali in Rwanda.

1.2 Objectives of the Study

The overall purpose of this study was to assess the extent how credit portfolio management affecting the financial performance of Bank of Kigali. While specifically this study assessed:

i. To find out the effects of the loan approval process to financial performance of BK.

ii. To evaluate the influence of borrower-specific factors on financial performance of BK.

iii. To analyze the effects of selection Risk Analysis to financial performance of BK.

II. LITERATURE REVIEW

Loan portfolio Management is a function performed within a company to improve and control credit policies that lead to increased revenues and lower risk including increasing collections, reducing credit costs, extending more credit to creditworthy customers, and developing competitive credit terms (Pandy, 2006). Loan portfolio management constituted by (1) the loan approval process presents credit terms, credit risk control, collection policy, and economic cycles. (2) The borrower-specific factors were shown by character, capacity, capital, collateral, and conditions. (3) The selection risk analysis show the risk transfer, risk securitization, risk derivatives and loan mechanisms, risk diversification, and risk retention (Tummala, and Burchett, 2009).

2.1 Borrower-Specific Factors

Ross, and Jordan, (2008) argued that borrower-specific factors is influencing the financial performance into 5 C’s Model of client appraisal including character which is the applicant’s record of meeting previous obligations, financial status, contractual, and moral (Good hart, 2004). Capacity which is the applicant’s ability to repay the requested loan, financial statement analysis, with particular emphasis on liquidity and debt ratios, it is typically used to assess the applicant’s capacity (Gollier, 2001). Capital that is the financial strength of the applicant as reflected by ownership position. Analysis of the client’s debt relative to equity and profitability ratios is always used to assess its capital (Gordy, M., 2000). Collateral as the amount of assets the applicant has which is available for use in securing the credit. The larger the amount of available, the greater the chance that a firm recovers its funds in case of the applicant defaults. A review of the customer’s balance sheet, asset value appraisals, and any legal claims filed against the applicant’s assets, can be used to determine its collateral (Grunert, and Norden, 2005). Conditions which is the current status of economic and business climate as well as any other unique circumstances affecting either party to the credit transaction. Generally, credit analyst typically gives primary attention to the first two C’s-character and Capacity because they represent the most basic requirements for extending credit to an applicant (Gurtler, Heithecker, 2005).

2.2 The Loan Approval Processes

Tummala and Burchett, (2009) argue the process of loan portfolio management begins with accurately assessing the loan-worthiness of the customer base and his/her business viability. This is very important if the financial institution wishes to extend some type of credit line or revolving loan to certain customers. Hence, proper loan portfolio management is setting specific criteria that a customer must meet before receiving the proposed credit management (Tummala & Burchett, 2009).

Credit Terms are the conditions under which an MFI advances loans to its customers. The credit terms specify the credit period and interest rates. Credit period is defined as the period of time in which the credit is granted to the applicant (Ross, Westerfield & Jordan, 2008). Credit Risk Control where an investor’s risk of loss is arising from a borrower who does not make payments as promised. Such an event is called a default. Another term for credit risk is default risk. Investor loses include lost principal and interest, decreased cash flow and increased
collection costs. Credit risk can be mitigated using based pricing, covenants, credit insurance, tightening and diversification (Ross et al., 2008).

Collection Policy is several policies which an organization should put in place to ensure that loan management is carried out effectively; one of the policies is a collection policy which is needed, for the reason that all customers do not pay the firms bills on time. Some customers are slow payers while others are non-payers. The collection effort should therefore be aimed at accelerating collections from slow payers and reducing bad debt losses (Kariuki, 2010). Economic cycles refers to wide fluctuations economy in production or economic activity over several months or years. Pandey (2008) occur where there is a long term growth trend, and this involve shifts over time between periods of rapid economic growth and periods of relative decline (a contraction or recession).

2.3 The selection Risk Analysis

Ahmed and Ariff (2007) examined the key determinants of loan risk of commercial banks on emerging economy banking systems compared with the developed economies. The study found out that regulation in commercial banks is very important for banking systems that offer multi-products and services; management quality is essential in the cases of loan-dominant banks in emerging economies. Risk transfer is including the insurance sector argue that banks are shifting loan risks from their balance sheets to insurance companies whereby these insurance companies continue to issue bonds which are later sold to institutional investors like investment funds and other end-investors (Andersen, 2001).

Risk securitization has emerged globally as an important technique for bundling assets and segregating risks into marketable securities. It allows investors to improve their yield while keeping intact or even improving the quality of investment (Vora, 2001). Risk derivatives and loan mechanisms involves one party shedding credit risk (in other words, buying credit protection) and another taking on this risk (selling credit protection). Loan risk can be transferred in part to either by buying credit risk protection to eliminate or reduce loan risk exposure or by directly selling the loan-risk bearing instrument (Erin, 2003). Risk diversification is the primary tool for lenders to control borrower risk, and highlighted the fact that risks arise well before default occurs and warned against the construction of “bullet-proof” portfolios that can underperform (Brannan, 2000). Risk retention is very important where; risk managers seek to reduce the economic impact of risk on their organizations and or institutions through adopting greater levels of risk retention (Amato, 2004).

2.4 Principles and Procedures of Lending

Banking institutions should have an independent loan risk management committee chaired by a director, either executive or non-executive, without powers to approve loan to assist the Board in its supervisory role on the management of loan risk of the organization. The committee should be responsible for evaluation and assessing the adequacy of strategies to manage the overall credit risk associated with the banking institution’s activities; oversee the formal development of credit policies within the banking institution, encompassing all products and businesses and also ensuring the development of policy manual and procedures; monitor, assess and advise on the loan risk portfolio composition of the banking institution; evaluate risks under stress scenarios and the capacity of the banking institution’s capital to sustain such risk; assess the risk-return trade off; review reports of the credit review process, asset quality and ensure that corrective action is taken; and review and evaluate the various credit products engaged by the banking institution to ensure that it is conducted within the standards and policies set by the board (Ben-Naceur and Omran, 2008).

2.5 Financial Performance of Commercial Banks

According to Meyer (2000), financial performance has different components such as profitability, solvability, and liquidity. The profitability is considered as a measure of profitability, which is a way to measure a company’s performance. It is simply the capacity to make profit, and a profit is what is left over from income earned after you deducted all costs and expenses related to earning the income.

The liquidity is factor indicating the financial performance that relates to the ability of an economic agent to exchange his or her existing wealth for goods and services or for other assets. Solvability is efficiency ratio that measure, the ability of business to use its assets and liabilities to generate sales. A highly efficient organization has to minimize its net investment in assets, and so requires less capital and debt in order to remain in operation (Meyer, 2000). In order to solve the study problem, the study establishes the relationship between independent variables in terms of loan portfolio management and the dependent variables in terms of financial performance of commercial banks. The conceptual framework is shown in figure 1 as follows:
III. METHODOLOGICAL FRAMEWORK OF THE STUDY

Qualitative and descriptive approaches were applied in this study. Linear regression to show the relationship between the two variables by using SPSS Version 20.0. The target population was included by middle and top employees from BK Headquarters that concerns with credit and management of this bank. This means that target population was 58 employees from BK Headquarters.

3.1 Sample Size

Sample size was selected from target population of 58 staff. The study also used 5% of margin error while confidentiality is 95%. The study applies the formula of Taro Yamane elaborated in 1982. Through purposive sampling technique, there were 51 respondents selected as sample of this study.

3.2 Data Collection Methods

During data collection at Bank of Kigali, various instruments were used to collect information from respondents that including questionnaire, interview guide, and documentation.

3.3 Data Analysis Procedures

Data obtained from respondents of BK were edited, coded and make the statistical tables by using various methods such as descriptive statistical method which described the frequency, percentages, and cumulative percentages of data; and the linear regression analysis methods.

IV. RESULTS AND DISCUSSION FOR FINDINGS

The results of this study were presented and interpreted in accordance with the research objectives. The questionnaires were distributed to 51 respondents. The findings indicated the participation rate of 100.0% of answering the questions.

Table 1: Gender Distribution of respondents

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>28</td>
<td>54.9</td>
</tr>
<tr>
<td>Female</td>
<td>23</td>
<td>45.1</td>
</tr>
<tr>
<td>Total</td>
<td>51</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Data from field, (2020)
The findings show that 54.9% respondents were males, while 45.1% of respondents were females. As Rwandan gender law expected 30% of gender balance in every organization employment opportunity, Bank of Kigali has gender balance in employment.

Table 2: Distribution of Respondents on Education level

<table>
<thead>
<tr>
<th>Education level</th>
<th>Frequency</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor’s Degree</td>
<td>31</td>
<td>60.8</td>
</tr>
<tr>
<td>Masters Degree</td>
<td>20</td>
<td>39.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>51</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Source: *Data from field, (2020)*

Distribution by education level of respondents in BK shows that among 51 respondents participated in the study, 60.8% respondents had bachelors’ degree, and 39.2% of respondents had master’s degree.

Table 3: Working Experience of Respondents

<table>
<thead>
<tr>
<th>Experiences</th>
<th>Frequency</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-4years</td>
<td>18</td>
<td>35.3</td>
</tr>
<tr>
<td>5-6 years</td>
<td>20</td>
<td>39.2</td>
</tr>
<tr>
<td>7-8 years</td>
<td>5</td>
<td>9.8</td>
</tr>
<tr>
<td>9years and Above</td>
<td>8</td>
<td>15.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>51</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Source: *Data from field, (2020)*

More than 35.3% of respondents are between 2-4years of working experience in BK. 39.2% respondents had the experience between 5-6years of experiences. 9.8% had experience from 7-8years while 15.7% respondents had the experience of 9years and above.

4.1 The effects of the loan approval processes to the financial performance of BK

The findings confirmed that there are many effects of loan approval process on the financial performance of BK as table 4 below indicated.

Table 4: Effects of the loan approval processes to financial performance of Bank of Kigali

<table>
<thead>
<tr>
<th>The loan approval processes and financial performance</th>
<th>SA</th>
<th>A</th>
<th>U</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%i</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>BK looks the credit-worthiness of the customer base and business viability.</td>
<td>9</td>
<td>17.6</td>
<td>23</td>
<td>45.1</td>
<td>14</td>
</tr>
<tr>
<td>BK clarifies the specific criteria that customer must meet before receiving the proposed credit arrangement.</td>
<td>19</td>
<td>37.3</td>
<td>24</td>
<td>47.1</td>
<td>8</td>
</tr>
<tr>
<td>BK checks the applicant’s record like past obligations, financial, contractual, and moral.</td>
<td>22</td>
<td>43.1</td>
<td>17</td>
<td>33.3</td>
<td>6</td>
</tr>
<tr>
<td>BK evaluates the capacity of applicant’s ability to repay the requested credit as influence of financial performance.</td>
<td>19</td>
<td>37.3</td>
<td>26</td>
<td>51.0</td>
<td>0</td>
</tr>
<tr>
<td>BK checks the financial strength of the applicant as reflected by its ownership position.</td>
<td>27</td>
<td>52.9</td>
<td>17</td>
<td>33.3</td>
<td>7</td>
</tr>
<tr>
<td>They analyse the applicant’s debt relative to equity and its profitability ratios are frequently used to assess its capital.</td>
<td>28</td>
<td>54.9</td>
<td>9</td>
<td>17.6</td>
<td>6</td>
</tr>
</tbody>
</table>
BK asks the applicant's balance sheet, and asset value appraisals that used to evaluate collateral. 25 49.0 19 37.3 5 9.8 0 0.0 2 3.9

BK evaluates the current economic and business climate as well as any unique circumstances affecting either party to the credit transaction. 21 41.2 21 41.2 6 11.8 3 5.9 0 0.0

BK adopts the principles and procedures of lending to reduce non-performing loan for customers. BK follows the loan approval process which raises profit. 18 35.3 24 47.1 7 13.7 0 0.0 2 3.9

BK follows the loan approval process which raises profit was confirmed on rate of 80.4% of respondents.

Source: Data from field, (2020)

Description of abbreviation on tables: SA: Strongly Agree; A: Agree; U: undecided or Neutral, D: Disagree; SD: Strongly Disagree; fi: Frequency; %: Percentage.

The loan approval process of BK looks at the credit-worthiness of the customer base and business viability was confirmed on rate of 62.7% using strongly agree and agree. BK told the specific criteria that customer must meet before receiving the proposed credit arrangement was on 84.3%. BK checks the applicant’s record like past obligations, financial, contractual, and moral were on rate of 76.5%. BK evaluates the capacity of applicant’s ability to repay the requested credit as influence of financial performance was on 88.2%. BK checks the financial strength of the applicant as reflected by its ownership position was on rate of 86.3%. Analysis of the applicant’s debt relative to equity and its profitability ratios are frequently used to assess its capital in BK were on rate of 72.5%. BK asks the applicant’s balance sheet, and asset value appraisals that used to evaluate collateral was on rate of 86.3%. BK evaluates the current economic and business climate as well as any unique circumstances affecting either party to the credit transaction was on rate of 82.4%. BK adopts the principles and procedures of lending to reduce non-performing loan for customers were on rate of 82.4%.

4.2 The influences of borrower-specific factors on financial performance of BK

There are more influences of borrower specific factors on performance of BK such as credit period which refers to the period of time in which the credit is granted in BK; the interest rates charged by BK may affect the loan performance; the length of the credit period in BK is influenced by collateral value, credit risk, the size of the account and market competition; credit risk control of BK is done to avoid an investor's risk of loss arising from a borrower who does not make payments as promised; BK reduces credit risk by using risk based pricing, covenants, credit insurance, collection policy in BK is needed because some customers do not pay the bills in time. Table 5 illustrates perceptions on the influences of borrower-specific factors to financial performance of BK.

Table 5: The influences of borrower-specific factors on the financial performance of BK

<table>
<thead>
<tr>
<th>The borrower-specific factors and financial performance</th>
<th>SA fi</th>
<th>% fi</th>
<th>A fi</th>
<th>% fi</th>
<th>U fi</th>
<th>% fi</th>
<th>D fi</th>
<th>% fi</th>
<th>SD fi</th>
<th>% fi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit period refers to the period of time in which the credit was granted in BK.</td>
<td>25</td>
<td>49.0</td>
<td>19</td>
<td>37.3</td>
<td>5</td>
<td>9.8</td>
<td>2</td>
<td>3.9</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>The interest rates charged by BK affect the loan performance.</td>
<td>21</td>
<td>41.2</td>
<td>19</td>
<td>37.3</td>
<td>3</td>
<td>5.9</td>
<td>8</td>
<td>15.7</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>The length of the credit period in BK influenced by collateral value, credit risk, the size of the account and market competition.</td>
<td>32</td>
<td>62.7</td>
<td>16</td>
<td>31.4</td>
<td>3</td>
<td>5.9</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Credit risk control of BK was done to avoid an investor's risk of loss arising from a borrower who does not make payments as promised.</td>
<td>20</td>
<td>39.2</td>
<td>22</td>
<td>43.1</td>
<td>9</td>
<td>17.6</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>47.1</td>
<td>20</td>
<td>39.2</td>
<td>7</td>
<td>13.7</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
</tr>
</tbody>
</table>
BK reduces credit risk by using risk based pricing, covenants, credit insurance, tightening and diversification.

Collection policy in BK is needed because some customers do not pay the bills on time.

Credit administration and monitoring of BK is documented and show security disbursement receipts.

The collection effort of BK aimed at accelerating the collections from slow payers and reducing bad debt losses.

BK verifies the borrower-specific factors to enhance return on investment.

Source: Data from field, (2020)

The results confirmed that credit period refers to the period of time in which the credit is granted in BK confirmed by 86.3% of respondents who strongly agreed and agreed. The interest rates charged by BK may affect the loan performance on rate of 78.4%. The length of the credit period in BK is influenced by collateral value, credit risk. The size of the account and market competition was on rate of 94.1%. Credit risk control of BK is done to avoid an investor's risk of loss arising from a borrower who does not make payments as promised was on the rate of 82.4%. BK reduces credit risk by using risk based pricing, covenants, credit insurance, tightening and diversification were on rate of 86.3%. Collection policy in BK is needed because some customers do not pay the bills in time was on rate of 86.3%. Credit administration and monitoring of BK is documentation and security disbursement receipts were confirmed on the rate of 80.4%. The collection effort of BK aim at accelerating collections from slow payers and reducing bad debt losses were on rate of 78.4% and BK is verifying borrower-specific factors that enhances return on investment was confirmed by 84.3%.

4.4 The effects of selection Risk Analysis to financial performance of BK

Majority of respondents confirmed that there many effects of selection risks analysis to financial performance of Bank of Kigali as detailed on table 6 below.

Table 6: The effects of selection Risk Analysis to the financial performance of BK

<table>
<thead>
<tr>
<th>The selection Risk Analysis and financial performance</th>
<th>SA</th>
<th>A</th>
<th>U</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>fi</td>
<td>%</td>
<td>fi</td>
<td>%</td>
<td>fi</td>
</tr>
<tr>
<td>BK is shifting loans risks from their balance sheets to insurance companies to recover the loans.</td>
<td>18</td>
<td>35.3</td>
<td>24</td>
<td>47.1</td>
<td>3</td>
</tr>
<tr>
<td>Loan risk transfer enhances financial stability of BK.</td>
<td>26</td>
<td>51.0</td>
<td>20</td>
<td>39.2</td>
<td>5</td>
</tr>
<tr>
<td>Collateralized debt obligation and assets backed securities help BK to proactively manage their portfolio.</td>
<td>21</td>
<td>41.2</td>
<td>24</td>
<td>47.1</td>
<td>3</td>
</tr>
<tr>
<td>Loan derivatives of BK remain a small but rapidly growing market.</td>
<td>26</td>
<td>51.0</td>
<td>18</td>
<td>35.3</td>
<td>4</td>
</tr>
<tr>
<td>BK used risk diversification as primary tool to control borrower risk.</td>
<td>34</td>
<td>66.7</td>
<td>12</td>
<td>23.5</td>
<td>2</td>
</tr>
<tr>
<td>Risk retention analysis of BK help to decide how much risk is able to retain.</td>
<td>31</td>
<td>60.8</td>
<td>15</td>
<td>29.4</td>
<td>2</td>
</tr>
</tbody>
</table>
Management of BK is available as competent personnel to manage sufficient resources allocated to manage and control credit risk.

The personnel of BK involved in credit appraisal, approval, and review is required training program before they approve the credit.

Selection risk analysis helps BK to achieve on financial performance.

Source: Data from field, (2020)

The findings stated that BK is shifting loans risks from their balance sheets to insurance companies to recover the loans as confirmed by 82.4% using strongly agree and agree. Loan risk transfer enhance financial stability of BK was on rate of 90.2%. Collateralized debt obligation and assets backed securities help BK to proactively manage their portfolio was confirmed by 88.2%. Loan derivatives of BK remain a small but rapidly growing market was on rate of 86.3%. BK used risk diversification as primary tool to control borrower risk was on rate of 90.2%. Risk retention analysis of BK help to decide how much risk are able to retain was confirmed by 90.2%. Management of BK is available as competent personnel to manage sufficient resources allocated to manage and control credit risk as confirmed by 90.2%. The personnel of BK involved in credit appraisal, and credit approval and credit review are required training program before they approve credit was on rate of 94.1%; and selection risk analysis helps BK to achieve on financial performance was also confirmed by 78.4% respondents.

### 4.5 Linear Regression Test

The study used linear regression by analyzing the loan portfolio management (LPM) in terms of “loan approval process, borrower-specific factors, selection risk analysis” as independent variable, with financial performance in terms of “capital adequacy, asset quality, management quality, earning capacity, liquidity” as dependent variable. The study used the formula of $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$. However, $Y$ is dependent variable indicator which is “financial performance”. $X$ is independent variable factors which are “loan portfolio management”.

### Table 7: Analysis test of LPM and financial performance of BK

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>3.948</td>
<td>.521</td>
<td>7.578</td>
<td>.000</td>
</tr>
<tr>
<td>Loan approval process</td>
<td>.336</td>
<td>.146</td>
<td>.366</td>
<td>.2307</td>
</tr>
<tr>
<td>Borrower-specific factors</td>
<td>.449</td>
<td>.156</td>
<td>.455</td>
<td>.2887</td>
</tr>
<tr>
<td>Selection risk analysis</td>
<td>.275</td>
<td>.157</td>
<td>.278</td>
<td>1.752</td>
</tr>
</tbody>
</table>

**a. Dependent Variable: financial performance of BK**

The result from linear regression analysis on how loan portfolio management affects financial performance of Bank of Kigali shows that:

$$y = 3.948 + 0.336X_1 + 0.449X_2 + 0.2750X_3 + \varepsilon$$

The $X_1$ represent Loan approval process, $X_2$ represent Borrower-specific factors, while $X_3$ is Selection risk analysis, and $\varepsilon$ represents standard errors. As explained by the linear regression equation, it is clear that one unit change of $X_1$, $X_2$, and $X_3$ lead to change times 0.203, 0.148, and 0.343 of dependent variable respectively. In the other case, if all independent variable indicators are zero, the dependent variable equals to the constant (3.948). Thus, according to the result indicated on table 7, there is significant influence of loan approval processes, borrower-specific factors, selection risk analysis on the financial performance of Bank of Kigali.

### V. Conclusion and Recommendations

#### Conclusion

According to the findings indicated above through respondent’s perceptions, we may conclude by saying that the financial performance achieved by Bank of Kigali depends on an effective loan portfolio management. Absolutely it is impossible to have a good financial performance with a poor loan portfolio management in commercial banks.

#### Recommendations
The study recommended that BK should continue to uphold monitoring of loans that are in arrears, also disciplined the clients for late payment of loans to continue limiting the repeat of loans for defaulters or to discourage loan default. The BK should also monitor the flow of borrower's business through the BK's accounts, make regular review of the borrower's reports, be supportive to borrowers whenever they are recognized to be in difficulties, make frequent contact with borrowers and that they make on-line visits. This will ensure that the loans are put into the very use that they are advanced. Besides, the BK should carry out adequate financial analysis; reduce interest rates as a way of reducing loan default.

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