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Abstract

The main objective of the study was to analyze the effect of loan portfolio management on profitability of financial institutions in Rwanda with a reference to Bank of Kigali Plc. The specific objectives were to examine the effect of borrowers screening on profitability at Bank of Kigali Plc, to explore the effect of loan monitoring on profitability at Bank of Kigali Plc and to determine the effect of collateral valuation on profitability at Bank of Kigali Plc. To achieve these objectives; the study adopted a correlational research design whereby the total population was 124 workers who are working in customers relationships management department, finance and budget department, operation department, credit department and loan recovery departments of Bank of Kigali Plc. The sample size was 95 respondents selected by stratified sampling technique. Data were collected from both primary and secondary data using a structured questionnaire and documentary reviews. Data were analyzed by descriptive and inferential statistics, presented using frequency tables and percentages, mean and standard deviations as well as regression analyses. The findings indicate the Pearson correlation drawn from SPSS on 95 cases observed as the number of complete observations as pair wise no missing values ($n=95$). The results show that there is a linear relationship between the two variables (independent and dependent) with correlation of height and weight ($r= 0.846; 0.693; 0.921$ respectively), its p-value, and the numbers of complete pair wise observations that the calculation was based on. The results show that between loan portfolio management and profitability of financial institutions, there is significance level indicated by $0.846; 0.693; 0.92$ respectively) for a two-tailed test), as these values are greater than 0.05. The study concluded at 95% confidence interval that there is a positive relationship between profitability of financial institutions and borrowers screening, loan monitoring, and collateral valuation and recommended that Bank of Kigali Plc needs to continue doing a dip assessment of credit application by considering 5cs and credit reference bureau checking in order to reduce the fail projects of borrowers.

1. Introduction

According to Subaru and Kuku (2020), every loan disbursed should be collected including its return if the lending bank has to sustain as a going business concern. It is asserted that all over the globe, financial establishments encounter significant hazards related to loans that are not being repaid. Arko (2019) also reported that large proportion of the loans disbursed by Rwandan commercial banks unfortunately become non-performing and finally result in bad debts which have negative consequences on their overall financial performance. However, the problem of uncollected loans has currently been growing in banks. Different sources have revealed that most of the banks have been facing serious problem having a significant portion of their loans fall into the category of bad debts or what is technically termed as Non-Performing Loans (Mombo, 2020).

However, the way credit risk is managed greatly determines the performance of such a bank. Many banks that failed to manage their credit risk through loan portfolio management very well have performed poorly while those ones that managed them properly have had good profits. Loan Performance of banks has attracted many researchers' minds. This is because some banks have gone under while others are facing serious default or low loan uptake (Kiplimo and Kalio, 2022). Studies carried out by Rukwaro, (2020), Kitaka, (2019), Korir (2021), Mokogi, (2018) Kisala, (2019) and Kibor *et al*, (2018) have shown a high diminishing rates among the MFIs however, loan portfolio management practices for commercial listed banks in Rwanda are not too known because from literature this type of information has not yet been documented to high extent in Rwanda. Studies have been done in other countries and some studies in commercial banks in Rwanda and Sacco's but fewer studies has been done in commercial banks mostly listed banks in Rwanda. This paper opens a platform for a study to be carried out to fill the gap in knowledge through studying the relationship between loan portfolio management and profitability of financial institutions in Rwanda.

1.1 Objective of the Study

The main objective of the study is to analyze the effect of loan portfolio management on profitability of financial institutions in Rwanda with a reference to Bank of Kigali Plc.

The study is based on the following specific objectives:

- i. To examine the effect of borrowers screening on profitability at Bank of Kigali Plc.
- ii. To explore the effect of loan monitoring on profitability at Bank of Kigali Plc.
- iii. To determine the effect of collateral valuation on profitability at Bank of Kigali Plc.

1.2 Research hypotheses

Three research hypotheses will guide this study:

H0₁: There is no significant effect of borrowers screening on profitability at Bank of Kigali Plc

H1: There is a significant effect of borrowers screening on profitability at Bank of Kigali Plc

H0₂: There is no significant effect of loan monitoring on profitability at Bank of Kigali Plc

H2: There is a significant effect of loan monitoring on profitability at Bank of Kigali Plc

H0₃: There is no significant effect of collateral valuation on profitability at Bank of Kigali Plc

H3: -There is a significant effect of collateral valuation on profitability at Bank of Kigali Plc

2. Literature review

Koch and MacDonald (2010) argue that a bank's profitability will generally vary directly with the riskiness of its portfolio and operations. As a result, in order to increase the return, banks need to know which risk factors have greater impact on profitability which eventually leads to bank financial performance. According to Tafri et al. (2009), loan portfolio management is important both for banks and policy makers because a strong banking system can promote financial stability of a country and increase economy's resilience in facing economy crisis. Therefore the study and measure of impact of risk management to bank's performance are crucial for commercial bank. Most companies can readily see losses incurred by bad debts, customers going into liquidation, receivership or bankruptcy. The visible effect of removing losses from unpaid debts is a reduction in the Profit and Loss Account.

On the other hand, the less conspicuous expense of interest due to delayed payments might go unnoticed in terms of its impact. This expense is often not quantified independently, as it's blended with overall bank charges encompassing various activities. Moreover, the total bank interest cost also diminishes due to the money saved from delayed bill payments. However, credit managers have the ability to assess this interest cost specifically for debtors. The outcomes of such analysis could astonish many, given that the expense incurred from waiting for payments beyond the stipulated terms is typically around ten times greater than the losses from bad debts.

Myers and Brealey (2013), describe loan portfolio management as methods and strategies adopted by a firm to ensure that they maintain an optimal level of credit and its effective management. It encompasses financial management elements such as evaluating credit, assigning credit ratings, categorizing credit, and providing credit reports. A proper credit risk management will lower the capital that is locked with the debtors, and also reduces the possibility of getting into bad debts. According to Edwards (2015), unless a seller has built into his selling price additional costs for late payment, or is successful in recovering those costs by way of interest charged, then any overdue account will affect his profit. In some competitive markets, companies can be tempted by the prospects of increased business if additional credit is given, but unless it can be certain that additional profits from increased sales will outweigh the increased costs of credit, or said costs can be recovered through higher prices, then the practice is fraught with danger. Effective management of accounts receivables involves designing and documenting a credit policy. Numerous organizations encounter issues with liquidity and insufficient operational capital as a result of lenient credit criteria and inappropriate credit strategies.

2.1. The effect of borrowers screening on profitability of financial institutions

In an examination of the impact of credit management on the financial performance of microfinance institutions in Kenya, Gatuhu (2021) identified several credit management measures employed by lending institutions to mitigate credit risk. These measures include client appraisal, which involves assessing the willingness and ability of potential borrowers to repay loans. The study referenced the 5Cs model of credit evaluation, which considers character, capacity, collateral, capital, and condition of the borrower. Additional measures mentioned encompass credit controls through loan product design, credit committees, delinquency management, and loan rescheduling.

Ross, and Jordan, (2018) 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, 2020). 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, 2021). 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, 2020).

Van Horne (2002) noted that client screening involves obtaining information on loan applicants, and then using the information to analyse and determine the creditworthiness of the applicants so as to make credit decisions. The information is obtained from the applicants' financial statements, credit ratings and reports, trade checking, and experience in business. This information helps in the analysis of not only the creditworthiness and ability of the applicant to meet the minimum standards for qualifying for the loan being applied for, but also the probability of bad debts. All this is done so as to take an informed decision as to the extension of any loan. He was, however, generally dealing with the management of financial policy but not with particular reference to microfinance institutions. Nonetheless, his observations can guide a study into how these institutions go about their client screening and how this affects their portfolio performance.

Hartmut (1997) looked at client screening from the perspective of loan demand and potential to repay. He noted that client screening deals with assessing the credit demand based on the repayment potential of loan applicants. Regarding Microfinance Institutions (MFIs), the primary emphasis lies in assessing the repayment ability of applicants. This assessment relies on an analysis of their creditworthiness, reliability, the nature of their business activities, and the level of confidence that the MFI places in the information provided by the applicants. According to ACCA (2005) historical financial indicators can be used to screen clients. These indicators can be calculated from previous financial statements and used to assess past trends in liquidity, solvency, profitability, efficiency, and debt repayment capacity. This information is important to lenders as they evaluate the borrower's current financial position and how well the borrower has performed in recent years. These indicators should then be compared to the lender's underwriting standards to assess the individual borrower's creditworthiness. If an applicant's balance sheet shows that the applicant has more loans than assets, that is, if the applicant's equity to assets ratio is low, lending the applicant is at a greater risk of not recovering the loan extended. This is because low equity to assets ratio indicates that the applicant is at a greater risk of collapsing any time. On the other hand, a high equity to assets ratio indicates that the applicant is in a sound position and can service and repay the loan, regardless of whether the applicant has made profits or not.

2.2. The effect of loan monitoring on profitability of financial institutions

Gakure, Ngugi, Ndwiga, and Waithaka (2012) asserted that a well-established process for approving new credits and managing existing ones is crucial in credit risk management within banks. Mwisho (2011) supported this claim by emphasizing the importance of monitoring borrowers, as exposures change over time and with underlying variables. The study suggested various methods for credit monitoring, such as maintaining frequent contact with borrowers, positioning the bank as a problem solver and trusted advisor, offering support during borrowers' difficulties, monitoring their business flow through the bank account, regularly reviewing borrower reports, conducting on-site visits, updating credit files, and periodically reviewing borrowers' ratings. Moti *et al.* (2012) also highlighted the significance of loan duration, collateral, and covenant enforcement in boosting loan repayment.

To achieve financial viability and sustainability, commercial banks need to uphold a strong portfolio quality characterized by full repayment in the best case scenario, or minimal instances of delinquency or default. Additionally, they should ensure cost recovery and effective lending

practices (Addae-Korankye, 2014). Moti, Masinde, Mugenda and Sindani (2012) observed that commercial banks have adopted the arrears monitoring systems and stringent policy as the most efficient methods of loan collection. The study issued a cautionary note regarding the adoption of lenient policies, as it found that loan collection becomes poor under such circumstances. Pandey (2014) emphasized the need for credit policies to monitor repayment, ensuring convenience for both lenders and borrowers.

As outlined by Pike & Neale (2014), a robust loan policy serves as the framework for how a company interacts with and manages its most valuable resource – its customers. Scheufler (2012) suggests that a credit policy establishes shared objectives for the organization and acknowledges the credit and collection department's role in organizational strategies. When the loan policy is accurately crafted, implemented, and comprehended across all levels of the financial institution, it enables management to uphold appropriate loan standards to mitigate avoidable risks and accurately evaluate business expansion prospects.

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). 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. As indicated by Pandey (2008), these instances manifest when a prolonged pattern of growth emerges, involving transitions between phases of substantial economic expansion and periods of comparative downturn over time.

Rodgers (2013) in his study on loan performance and profitability of microfinance institutions in Uganda used both quantitative and qualitative information (data) from questionnaires and interviews. The study design was mainly descriptive, analytical and explanatory. The research findings revealed that most of loan clients are affected by the loan period so as to meet their payment obligations. The majority of loan recipients borrow funds for business-related objectives, yet the provided loans were insufficient. Interest rates were notably elevated, and borrowers had no opportunity to engage in loan discussions as the bank's terms and conditions were predefined. The findings further revealed that expenses incurred by the borrowers from the time of application up to the time of repayment of the loans were too high, default rate was high, and not all the staff agreed that they monitor projects which are advanced and the bank does not motivate its clients to repay the loans. 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).

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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 “bulletproof” 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).

According to Berger and Gregory (2004), loan portfolio management entails closely and occasionally overseeing the utilization of disbursed loans. The goal is to mitigate the potential for default arising from inappropriate use of the loan funds. It is also intended to advise and give clients information regarding how best they can put loaned money to business use. This means that portfolio control is necessary not only to benefit the lending institution but also to ensure that clients succeed in the business pursuits for which they seek loans. Control should therefore ideally ensure that loans are serviced, recovered and repaid in a manner that also helps the clients not to run out of business. The follow up actions For MFIs, include enforcing ways and means of loan recovery in case a client begins to show signs of defaulting or late repayment. As Microfinance Institutions lack collateral for repossession, they typically retrieve their lent funds by distributing the defaulted loan amount among all the members within the group that vouched for the borrower. This approach enables them to effectively recover the funds.

2.3. The effect of collateral valuation on profitability of financial institutions

Nduwayo (2019) investigated the relationship between loan portfolio management and the financial performance of the Bank of Kigali, focusing specifically on this commercial bank. The study revealed a significant impact or close relationship between loan portfolio management and the financial performance of the Bank of Kigali with collateral valuation basis. Effective loan management was identified as the primary driver of the bank's positive financial performance. As a recommendation, the study suggested that banks should enhance the training of credit department employees to improve the performance of loan portfolio management.

Karekaho (2009) in his study on loan portfolio management and the performance of microfinance institutions in Uganda, Wakiso District, using an analytical and cross sectional survey focusing on both qualitative and quantitative data found out that the portfolio planning, client screening and portfolio control are related significantly with the portfolio performance of MFIs, but the strongest relationship was between portfolio control and the performance of MFIs. In addition, they asserted that, although all the independent variables predicted a significant proportion of this performance, the most significant individual predictor was again collateral valuation. The results, therefore, indicated that if MFIs are to achieve the desired portfolio performance, they have to consider all these independent variables but putting more emphasis on their collateral valuation in particular.

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, & Norden, 2019). 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, 2020). Tummala and Burchett, (2019) 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.

2.4 Gap Analysis

Moti, Masinde, Mugenda and Sindani (2012) observed that commercial banks have adopted the arrears monitoring systems and stringent policy as the most efficient methods of loan collection. However, the study warned that, when lenient policy is adopted, the loan collection is very poor. This study took for granted various ways to manage loan even before granting loans to borrowers and insisted on collection policies only while they are not the starting points of loan portfolio management.

Kuo et al. (2010) conducted a study on the relationship between loan policy and bank performance, specifically focusing on Taiwanese Banks. The research revealed that loans extended to Information Technology (IT) firms had a significant adverse effect when banks increased their loan ratios to the IT industry. It was observed that banks could experience losses if they suddenly provided loans to the IT sector without proper management, especially during a macroeconomic downturn. On the other hand, the study also identified a positive correlation between the consumer loan ratio and bank performance. Furthermore, changes in the political and economic environment were found to have a negative impact on the overall performance of banks.

This study is criticized in the sense that it has distinguished the sector activity that can have negative or positive correlation between loan portfolio management and financial performance of commercial banks while they could exhaust the sector activities rather they could study general context on how to manage loans irrespective of the sectors as any sector can in short or long run present the same behavioral trends.

Nduwayo (2015) conducted research on the influence of loan portfolio management on the financial performance of the Bank of Kigali, a commercial bank. The study's results indicated a significant connection between loan portfolio management and the bank's financial performance. Specifically, it was observed that effective loan management played a crucial role in driving positive financial outcomes for the Bank of Kigali. This study is criticized in the context of it has shown the positive relation between loan portfolio management and financial performance of commercial banks and it lagged behind the detailed elements constituents of the loan portfolio management practices and how separately each and every element can itself affect the financial performance of commercial bank, this is the rationale for the present study to fill the gap by showing the separate impact of all components of loan portfolio management on financial performance.

The local studies analyzed are biased towards the various tools and techniques of loan portfolio management used by various institutions (Ngare, 2013). The studies did not establish a clear relationship between loan portfolio management and profitability of listed banks in Rwanda with clear indication. The theories analyzed have induced a very important element in banks risk and return and holding of a portfolio of assets to diversify risk.

3. Research methodology

This chapter outlines the research design and methodology used in the study. It describes the population that was studied and the sampling design used. It also discusses the data collection and analysis techniques.

3.1 Research design

The research design for the present study was correlational research design. Correlation helps make predictions based on historical relationships and in determining the validity and reliability of a study. This research design was the best in explaining if two variables are related or if they vary. It aimed to determine the effects of loan portfolio management on profitability of financial institutions in Rwanda and the empirical evidence that help answer the research objective.

3.2 Study population

For this study, the population is the set of personnel in Bank of Kigali Plc; the total population was 124 workers who are working in customers relationships management department, finance and budget department, operation department, credit department and loan recovery departments (Bank of Kigali, 2023).

3.3. Sample and sampling technique

From the total target population, which is 124 individuals, it is not easy to afford them all, the sample to represent the whole population was deemed necessary and different formula adopted arrived at the sample size of 95 respondents. According to Slovin (2012), the sample size is calculated as follows:

$$n = \frac{N}{1 + N(e)^2}$$

Where: **n**: is the sample size, **N**: is the population size, **e** is the level of precision or error tolerance, 5% in this study to ensure highest accuracy of information.

$$N = 124 / 1 + 124(5\%)^2 = 95$$

Once the number of respondents is found, it adopted the random stratified sampling to know exactly how many respondents in each department at Bank of Kigali Plc.

3.4 Data collection methods and instruments

The data collection aspect of research is a fundamental practice across various domains, encompassing the physical and social sciences, humanities, business, and other fields of study. While methods vary by discipline, the emphasis on ensuring accurate and honest collection remains the same (Sekaran, 2015). In this study documentary review, interview and questionnaire as tools for data collection were used.

3.5 Data analysis

Data analysis was done using SPSS Version 23 to test the relevance of loan portfolio management practices on profitability of listed banks at the significance of 95% confidence interval and 5% margin error estimate. Ordinary least squares (OLS) are methods to quantify the evaluation of the different regression lines. According to OLS, we chose the regression line that minimizes the sum of the squares of the differences between the observed dependent variable and the predicted dependent variable.

In the simplest case, the regression model allowed for a linear relationship between the forecast variable y and a single predictor variable x . The coefficients β_0 and β_1 denote the intercept and

the slope of the line respectively. The intercept β_0 represents the predicted value of y when $x=0$. The slope β_1 represents the average predicted change in y resulting from a one unit increase in x while μ_i is the residual term that is the part of y_i that cannot be explained by x_i .

$$y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \mu_i$$

Where: $\beta_1 \beta_2 \beta_3 \geq 0$ and β_0 represents intercept, $\beta_1 \beta_2 \beta_3$ represent the effect of borrowers screening (X_1), collateral valuation (X_2) and loan monitoring (X_3) on profitability (Y) measured by return on asset, return on capital employed and net interest margin.

4. Research findings

This chapter shows the findings of this research by presenting it from analysis. Where this is required, interpretations are provided after each table, always taking into consideration the initial research questions.

To analyze the data, panel data diagnostic tests were undertaken to check the suitability of the data. The main aim of the tests was to establish if the selected panel data adhere to the basic requirements for regression analysis.

Table 1: Correlation coefficient between loan portfolio management practices and profitability of Bank of Kigali Plc

		BS	LM	CV	PFI
BS	Pearson Correlation	1	.709**	.516**	.846**
	Sig. (2-tailed)		0.000	0.000	0.000
	N		95	95	95
LM	Pearson Correlation		1	.698**	.693**
	Sig. (2-tailed)			0.000	0.000
	N			95	95
CV	Pearson Correlation			1	.921*
	Sig. (2-tailed)				0.098
	N				95
PFI	Pearson Correlation				1
	Sig. (2-tailed)				
	N				

Source: Primary data, 2023

With BS (Borrowers Screening), LM (Loan Monitoring), CV (Collateral Valuation), and PFI (Profitability of financial institutions). The findings indicate the Pearson correlation drawn from SPSS on 95 cases observed as the number of complete observations as pair wise no missing values ($n=95$). The results show that there is a linear relationship between the two variables (independent and dependent) with correlation of height and weight ($r=0.846; 0.693; 0.921$ respectively), its p-value, and the numbers of complete pair wise observations that the calculation was based on. The results show that between loan portfolio management and profitability of financial institutions, there is significance level indicated by $0.846; 0.693; 0.92$ respectively) for a two-tailed test), as these values are greater than 0.05.

Table 2: Regression model on profitability of financial institutions

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	T	
1 (Constant)	4.569	.226		6.952	.000b
Borrowers screening	.107	.003	.210	2.567	.002
Loan monitoring	.216	.071	.016	.219	.003
Collateral valuation	.416	.091	.006	.419	.000

Source: Primary data, 2023

The established regression equation was $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon_i$

Where Y = dependent variables, β_0 = a constant; $\beta_1, \beta_2, \beta_3$ = coefficients

X_1, X_2, X_3 = independent variables and ε_i = error term

$$Y = 4.569 + 0.107X_1 + 0.216X_2 + 0.416X_3 + \varepsilon_i$$

Where: X_1 : borrowers screening, X_2 : loan monitoring, X_3 : collateral valuation, and ε_i = error term. The table 2 give the individual regression model coefficients in a combined model on extent to which dependent variable as profitability of financial institutions level of Bank of Kigali Plc is influenced by the elements of loan portfolio management practices namely borrowers screening, loan monitoring and collateral valuation.

5. Conclusion

The assessed loan portfolio management included borrowers screening, loan monitoring, and collateral valuation and how they affect the profitability of financial institutions in Bank of Kigali Plc. The study further revealed that the P-value were less than 0.05 in all the variables, which shows that all the independent variables were statistically significant and thus in position to make conclusion for the study. From the findings on the coefficient of determination, the study found that there was great variation in the profitability of financial institutions could be accounted to changes in borrowers screening, loan monitoring, and collateral valuation at 95% confidence interval. This clearly shows that there is a positive relationship between profitability of financial institutions and borrowers screening, loan monitoring, and collateral valuation.

6. Recommendations

Therefore, the following recommendations was put in place:

Bank of Kigali Plc needs to continue doing a dip assessment of credit application by considering 5cs and credit reference bureau checking in order to reduce the fail projects of borrowers.

Others sources of borrowers' income should be taken into consideration for repayment and the collateral valuation practices at Bank of Kigali Plc should align with industry standards and regulatory requirements.

They should establish a strong system of control that would ensure security of their loan portfolio and they should plan intensive training to the staff and credit committee on credit management.

Bank of Kigali Plc should adopt the extension of credit repayment period to ease the task to borrowers and they could adopt fair interest rate to help in repayment.

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8. References

- Addae, K. (2014). Multi-country study of bank's credit risk determinants. *International Journal of banking and Finance*, 4(5), 201-203.
- Arko, A. (2019). Robust solutions of Linear Programming Problems contaminated with uncertain data. *Mathematical Programming*, 8(3), 411 – 424.
- Bank of Kigali, (2023). *Comprehensive audited annual report for the year ended 2022*
- Gatuhu, K. (2021). The Impact of effective Credit Risk Management on Bank Survival. *Journal of Financial Regulation and Compliance*, 8(4), 63-102.
- Gollier, R. (2021). Credit Risk and Commercial Banks Performance in Tanzania: a Panel Data Analysis. *Research Journal of Finance and Accounting*, 4 (16), 55-63.
- Good, H., (2020). *Beyond Bank Consolidation: The Impact on Society*, in CBN (ed.). Consolidation of Nigeria's Banking Industry. Abuja: Proceedings of the Fourth Annual Monetary Policy Conference.
- Gordy, M., (2020). Credit Risk and Profitability of Selected Banks in Ghana. *Research Journal of Finance and Accounting*, 3(7), 6-15.
- Grunert, R., & Norden, I., (2019). *Principles of Corporate Finance*. New York: McGraw- Hill.
- Gurtler, Q., & Heithecker, I. (2020). Organizing for Financial Risk Management. New York: *The Credit Administrator*, 2(2), 32-39.
- Kibor, O. (2018). Bank distress in Nigeria and the Nigeria deposit insurance. *Corporation intervention Global Journal of Management and Business Research Finance*, 1(3), 23-36.
- Kiplimo, M., & Kalio, P. (2022). *Fundamentals of Financial Management*. New Jersey: Prentice Hall

- Kisala, S. (2019). *Managing crisis before they happen: What every executive and manager needs to know about crisis management*. New York: Amacom.
- Kitaka, H. (2019). *Credit Risk Management Basic Concepts: financial risk components, rating analysis, models, economic and regulatory capital*. Oxford: University Press.
- Korir, M. (2021). *Principles of Money and Banking*, Ado: Forthright Educational Publishers.
- MacDonald, A., Ferry, M., & Dacky, K. (2016). *Five Risks You Can Target with Best Practices*. Retrieved on 21 July 2018 from <http://www.dnb.com>
- Mokogi, E. (2018). *Bank Management and financial services*. New Jersey McGraw Hill. press.
- Mombo, J. (2020). An Evaluation of the Impact of Credit Risk Management (CRM) on the Profitability of Nigerian Banks. *Journal of Modern Accounting and Auditing*, 10 (1),104-115.
- Myers, C. & Brealey, R. (2019). *Principles of Corporate Finance*. New York: McGraw- Hill.
- Nduwayo, A. (2019). *Credit risk management and profitability of commercial banks in Kenya*. Working paper, School of Business University of Nairobi, Kenya.
- Ross, U., & Jordan, D. (2018). Learning From Failures in Microfinance: What unsuccessful cases tell us how group base programs work. *American Journal of Economics and Sociology* 58(1),17-42
- Rukwaro, F. (2020). *The causes of bank failures*. In Mullineux AW, Murinde V. Handbook of international banking. Edward Elgar. pp. 366–402. ISBN 1- 84064-093-6.
- Scheufler, B. (2018). *Five Risks You Can Target with Best Practices*. Retrieved on 21 July 2018 from <http://www.dnb.com>
- Sekaran,T. (2015). *Credit Risk Management Basic Concepts: financial risk components, rating analysis, models, economic and regulatory capital*. Oxford: University Press.
- Tummala, E., & Burchett, N. (2019). Financial performance of microfinance institutions: a comparison to performance of regional commercial banks by geographic regions. *Journal of Microfinance/ESR Review*, 6(1),41-54