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Effects of Credit Cycle Management on Financial Performance of Financial Institutions in Rwanda: A Case Study of Guaranty Trust Bank Rwanda PLC

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Abstract: ***Credit cycle management is an important activity within the microfinance industry that cannot be overlooked in any organization engaged in the business of lending money. A well-structured and sound credit cycle management is a prerequisite which is able to attain stability, continued profitability and long term sustainability. The objective of this study was to establish the Some Effects of credit cycle management on financial performance of Guaranty Trust Bank Rwanda PLC. The specific objectives of the study was to evaluate the effect of credit terms on financial performance of Guaranty Trust Bank Rwanda PLC, establish the effect of client appraisal on financial performance of Guaranty Trust Bank Rwanda PLC, to examine the effect of credit risk control measures on financial performance Guaranty Trust Bank Rwanda PLC and to determine the effect of credit collection policies on financial performance Guaranty Trust Bank Rwanda PLC. The study was anchored on liquidity risk theory, value at risk theory and portfolio theory. This study will adopt descriptive research design. The target population for this study included operations and credit departments and the management. The study used stratified and simple random Sampling techniques to obtain a Sample of 80 respondents. The main data collection tool was a structured questionnaire. A pilot study was conducted to establish the reliability and validity of the questionnaire. Data analysis was done by use of Statistical Package for the Social Sciences (SPSS) on the collected data so as to come up with descriptive and inferential statistics. Pearson correlation analysis and multiple linear regression analysis was used to test the relationship between variables in the study hypotheses. Analyzed data was presented descriptively using tables. The study concluded that there exists a significant positive relationship between credit term and financial performance of Guaranty Trust Bank. In addition, Guaranty Trust Bank did not charge very high interest rate on loans given or use short repayment period for the loans granted. Guaranty Trust Bank had a well-documented credit cycle management policy. However, the respondents were not sure whether Guaranty Trust Bank used rigid lending terms and whether credit committees were always involved in making decisions regarding loans are essential in reducing default/credit risk. There exists a significant positive relationship between client appraisal and financial performance of Guaranty Trust Bank. At loan appraisal and subsequent approvals were on the basis of borrower's capacity, character, condition, credit history and collateral and Guaranty Trust Bank considered financial and physical characteristics in credit scoring models for individual loans. In addition, the credit reference bureau in choosing the right customers to lend to, conducted credit risk analysis on individuals and businesses before lending and had strategies for granting credits. There was a significant positive relationship between credit risk control employed by Guaranty Trust Bank and their financial performance. The study concluded that imposing loan size limits was a viable strategy in credit management, regular credit checks enhanced credit risk management and the use of customer credit application forms improved monitoring and credit risk management. The study concluded that there was a significant positive relationship between credit collection policies and financial performance of Guaranty Trust Bank. However, majority of the respondents Some Effects that improved follow up post migration to NPL improved collection and classification to good book, strict system related to credit performance monitoring led to enhanced loan performance. The study recommends that banks should use rigid lending terms and credit committees should always be involved in making decisions regarding loans are essential in reducing default/credit risk. Secondly, there should be Some Effects client appraisal before issuance of any loans in order to reduce NPLs since the study found out a significant positive relationship between client appraisal and financial performance of banks.***

Keywords: Credit Cycle, Credit Cycle Management, Financial Performance, Financial Institutions

1. Introduction

Credit management is one of the most important activities in any company and cannot be overlooked by any economic enterprise engaged in credit irrespective of its business nature. It is the process to ensure that customers will pay for the products delivered or the services rendered. Myers and Brealey (2013) describe credit management as methods and strategies adopted by a firm to ensure that they maintain an optimal level of credit and its Some Effects management. It is an aspect of financial management involving credit analysis, credit rating, credit classification and credit reporting. Nelson (2012) views credit management as simply the means by which an entity manages its credit MEles. It is a prerequisite for any entity dealing with credit tranMEctions since it is impossible to have a zero credit or default risk. The higher the amount of accounts receivables and their age, the higher the finance costs incurred to maintain them. If these receivables are not collectible on time and urgent cash needs arise, a firm may result to borrowing and the opportunity cost is the interest expense paid.

Nzotta (2014) opined that credit management greatly influences the success or failure of commercial banks and other financial institutions. This is because the failure of deposit banks is influenced to a large extent by the quality of credit decisions and thus the quality of the risky assets. He further notes that, credit management provides a leading indicator of the quality of deposit banks credit portfolio. A key requirement for Some Effects credit management is the ability to intelligently and efficiently manage customer credit lines. In order to minimize exposure to bad debt, over reserving and bankruptcies, companies must have greater insight into customer financial strength, credit score history and changing payment patterns.

2. Statement of the Problem

The rate at which the non-performing loans have grown in the recent years in Rwanda reflects unhealthy banking system. The trend shows that banks have difficulty collecting interest and principal on their credits. That has led to poor performance for the banks in Rwanda and, possibly, bank closures (The Global Economy 2018). The National Bank of Rwanda raised concerns over the level of non-performing loans, which stood at 8.2 per cent as of June 2018. The central bank attributed the increasing non-performing loan levels to slowdown in economic activity as well as inadequate monitoring of some large facilities (National Bank of Rwanda 2019). Bank non-performing loans to total gross loans are the value of non-performing loans divided by the total value of the loan portfolio (including non-performing loans before the deduction of specific loan-loss provisions). The loan amount recorded as non-performing should be the gross value of the loan as recorded on the balance sheet, not just the amount that is overdue.

Below the table of percentage non-performing in Rwanda between financial years 2013 to 2018.

Table 1: Non –Performing loans in Rwanda as a percentage of loan amounts disbursed

Year	% of Non-Performing Loan
2013	5.93
2014	5.22
2015	5.91
2016	7.08
2017	7.22
2018	8.20

Based on the above table, its observed that there has been gradual increase of non-performing loans in Rwanda hence need for industry stakeholders and scholars to devise ways of mitigating further escalation of the scenario by providing ways of to curtail the scenario, therefore necessitating this research on credit cycle management. Sound credit management is a prerequisite for a financial institution's stability and continuing profitability, while deteriorating credit quality is the most frequent cause of poor financial performance and condition. According to Gitman (2017), the probability of bad debts increases as credit standards are relaxed. Firms must therefore ensure that the management of receivables is efficient and Some Effects. Such delays on collecting cash from debtors as they fall due has serious financial problems, increased bad debts and affects customer relations. If payment is made late, then profitability is eroded and if payment is not made at all, then a total loss is incurred. On that basis, it is simply good business to put credit management at the 'front end' by managing it strategically.

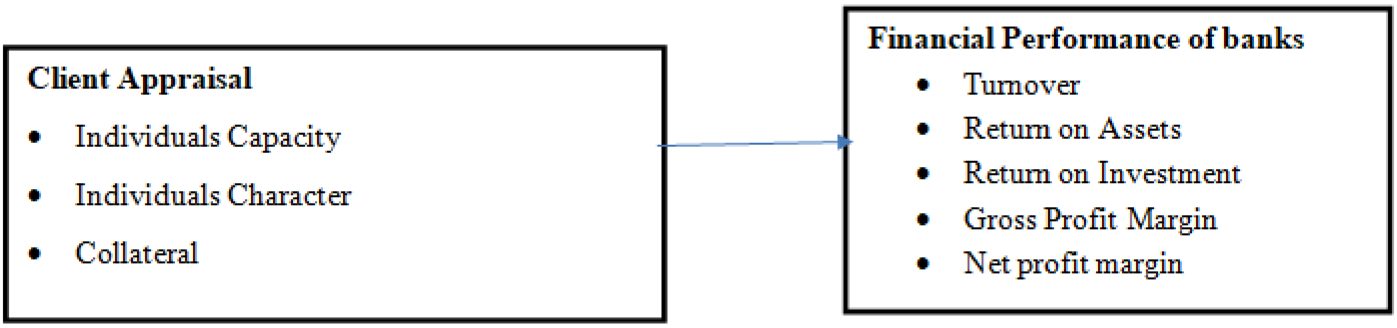
Until recently in early 1990s, credit risk was largely analyzed by reviewing individual loans that were kept by commercial banks. Additionally, most loans were kept by commercial banks in their books to maturity. Today however, credit risk management is a judicious mix of portfolio analysis and loan review (Sobehart et al., 2014). In addition to this, advancement in technologies facilitating people to buy and sell risks has implied that commercial banks shift from the traditional loan books and come up with lending practices of seek best mixture of assets in line with the current credit and market conditions (The World Bank, 2015). Unlike in the past, commercial banks today are in position to control and manage portfolio concentrations, loan size and their maturities besides elimination of problematic assets before creation of losses (International Monetary Fund, 2014). Research has been conducted to ascertain the effect of credit risk management on financial institutions. Shieler et al., (2017) investigated credit risk management and financial performance of MFIs in Kampala Uganda, Nguta (2013) explored loan repayment default in MFIs, KiMEla (2014) explored credit risk management practices in relation to loan performance of MFIs. JoEtta (2017) also conduct research on bank performance and credit risk management found that there is a significant relationship between financial institutions performance (in terms of profitability) and credit risk management (in terms of loan performance). Kagoyire and Shukla (2016) studied the effect of credit management on the financial performance of Equity bank in Rwanda. Nevertheless, these studies did not address the Some Effects of credit cycle management on financial performance of financial institutions in Rwanda: A case study of Guaranty Trust Bank Rwanda PLC. There are 11 commercial banks in Rwanda, 3 Micro Banks, 1 Development Bank and 1 Co-operative Bank (BNR 2019) and 331 Micro finance institutions (AMIR 2019). This research was design to be conducted on commercial bank institution. A random sampling was conducted hence Guaranty Trust Bank Rwanda PLC was selected for the research.

Guaranty Trust Bank PLC, is a foremost Banking Group headquartered in Lagos, Nigeria, and listed on the London Stock Exchange. In 2013, it acquired Fina Bank Group which had been in operation in Kenya for over 25 years with subsidiaries in Rwanda and Uganda. GTBank has been in operation for over 23 years and today operates over 200 branches in Nigeria, Gambia, Ghana, Liberia, Sierra Leone, Cote d'lvoire and the United Kingdom. The Guaranty Trust Bank Rwanda PLC is one of the leading financial banking institutions, having diversified credit services into various sectors of economy in Rwanda.

3. Objectives of the Study

The general objective of this study was to evaluate the Some Effects of credit cycle management on financial performance of financial institutions in Rwanda: A case study of Guaranty Trust Bank Rwanda PLC. Its second specific objective was to establish the effect of client appraisal on financial performance of Guaranty Trust Bank Rwanda PLC.

4. Conceptual Framework



5. Research Methodology

- **Research Design**: The researcher used descriptive research design
- **Target Population:** The target population for this study included all the 16 commercial banks, and 331 micro finance institutions
- **Sample size:** According to the Human Resources manager of Guaranty Trust Bank Rwanda PLC staff working in the operations and credit departments and the management of these branches were 100. Therefore, the study Sampling frame included all 100 respondents
- **Data Collection tools:** This research utilized primary information which was obtained by use of questionnaires structured in accordance to the specific objectives of the research, Secondary data was obtained from review of journals and reports in making sure that the study findings are reliable and accurate.
- **Data Processing, Analysis and Presentation:** Data analysis encompasses examining, categorizing, tabulating, testing or recombining both quantitative and qualitative evidence aimed at tackling the research questions (Jupp & MEpsford, 2016). This study used descriptive and inferential statistics in the analysis of data. Once data was collected, it was crosschecked and verified for errors, completeness and consistency. Data was then coded, entered and analyzed descriptively using IBM Statistical Package for Social Sciences (SSPS 23). Pearson correlation analysis was used to test the strength and direction of the relationship between variables in the study. Regression analysis was used to test the study hypotheses. Thus, multiple linear regression model for the study was $Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$

6. Summary of Research Findings

6.1: Client Appraisal

The study sought to establish the effect of client appraisal on financial performance of Guaranty Trust Bank Rwanda PLC. The findings of the study were presented in a five point Likert's scale where ME=Much Effects, SE=Some Effects, N=not sure, NE=No Effects, NEA=No Effects at all and T=total. The respondents were asked whether loan appraisal and subsequent approvals were on the basis of borrower's capacity, character, condition, credit history and collateral had effects on financial performance of the bank. Almost three quarter of the respondents 72.7% Some Effects while slightly more than a quarter of them 27.3% Much Effects to the statement. None of the respondents No Effects, No Effects at all or were Neutral. These results imply that majority of the respondents Some Effects that loan appraisal and subsequent approvals on the basis of borrower's capacity, character, condition, credit history and collateral had some effects on financial performance of the bank.

The respondents were also asked whether consideration of financial and physical characteristics in credit scoring models for individual loans has effects on financial performance of the bank. More than half of the respondents 63.6% responded Some Effects to the statement, 18.2% of them Much Effects and 9.1% of them No Effects while another 9.1% of them were neutral respectively. Noneof the respondents No Effects at all to the statement. These findings indicate that majority of the respondents Some Effects that consideration of financial and physical characteristics in credit scoring models for individual loans has effects on financial performance of GT Bank PLC.

The respondents were further asked whether utilization of the credit reference bureau in choosing the right customers to lend to had effects on financial performance of the bank. Slightly more than half of the respondents 54.5% Some Effects to the statement, 18.2% of them Much Effects and another 18.2% of them No Effects while 9.1% of them were neutral respectively. None of the respondents No Effects at all to the statement. These findings indicate that majority of the respondents Some Effects that the utilization of the credit reference bureau in choosing the right customers to lend to had effect on performance of the bank.

The study also sought to establish whether credit risk analysis on individuals and businesses before lending had effects on financial performance of the bank. Slightly more than half of the respondents 54.5% Some Effects to the statement, 27.3% of them No Effects and 9.1% of them Much Effects while another 9.1% of them were neutral respectively. None of the respondents No Effects at all to the statement. These findings indicate that majority of the respondents Some Effects that credit risk analysis on individuals and businesses before lending had effects on financial performance of GT Bank PLC.

Finally, the study sought to find out whether application of strategies for granting credits focusing on who, how and what ought to be done at the branches and Head office levels while appraising borrowers had effects on financial performance of the bank. More than three quarter of the respondents 81.8% Some Effects while less than a quarter of them 18.2% Much Effects to the statement. None of the respondents No Effects, No Effects at all or were neutral. These results imply that majority of the respondents Some Effects that application of strategies for granting credits focusing on who, how and what ought to be done at the branches and Head office levels while appraising borrowers had effects on financial performance of the bank. Table 2illustrates the findings of the study.

Table 2: Clients Appraisal

Statement		ME	SE	N	NE	NEA	T
Loan appraisal and subsequent approvals are on the basis of borrower's capacity, character, condition, credit history and collateral	%	27.3	72.7	0	0	0	100
Consideration of financial and physical characteristics in credit scoring models for individual loans.	%	18.2	63.6	9.1	9.1	0	100
Utilization of the credit reference bureau in choosing the right customers to lend to	%	18.2	54.5	9.1	18.2	0	100
Credit risk analysis on individuals and businesses before lending	%	9.1	54.5	9.1	27.3	0	100
Applying strategies for granting credits focusing on who, how and what ought to be done at the branches and Head office levels while appraising borrowers	%	18.2	81.8	0	0	0	100

6.2: Financial Performance

Finally, the study sought to find out the effect of credit cycle management on financial performance of Guaranty Trust Bank Rwanda PLC. The findings of the study were presented in a five point Likert's scale where ME=Much Effects, SE=Some Effects, N=not sure, NE=No Effects, NEA=No Effects at all and T=total.The respondents were asked whether the bank branches credit cycle management had effects on financial performance of Guaranty Trust Bank. Almost three quarter of the respondents 72.7% Some Effects to the statement, 18.2% of them were unsure while 9.1% of them Much Effects respectively. None of the respondents No Effects and No Effects at all respectively. The findings of the study show that majority of the respondents Some Effects that their bank branches credit cycle management had effects on financial performance of the bank.

The respondents were asked whether proper credit cycle management reduced non-performing loans. Almost a half of the respondents 45.5% Some Effects to the statement, 36.4% of them Much Effects while 18.2% of them No Effects at all respectively. None of the respondents No Effects or were not sure. The results of the study imply that majority of the respondents Some Effects that proper credit cycle management reduced non-performing loans hence financial performance of the bank. The respondents were further asked whether proper credit cycle management ensured that their branches were always liquid. More than half of the respondents 54.5% Some Effects to the statement, 27.3% of them Much Effects while 18.2% of them No Effects respectively. None of the respondents No Effects at all or were not sure. The results of the study imply that majority of the respondents Some Effects proper credit cycle management ensured that their branches were always liquid hence effects to the financial performance.

The respondents were further asked whether proper credit cycle management improved profit margins of the branches, hence effecting financial performance of the bank. More than half of the respondents 54.5% Some Effects to the statement, 27.3% of them Much Effects while 18.2% of them No Effects respectively. None of the respondents No Effects at all or were not sure. The results of the study imply that majority of the respondents Some Effect proper credit cycle management improved profit margins of the branches hence overall performance of the bank. Finally, the respondents were asked whether proper credit cycle management led to high return on investment for the branches, hence effects on overall performance of the bank. More than half of the respondents 54.5% Some Effects to the statement, 18.2% of them Much Effects and No Effects while 9.1% of them were unsure respectively. None of the respondents No Effects at all. The results of the study imply that majority of the respondents Some Effects proper credit cycle management led to high return on investment for the branches. Table 3 illustrates the findings of the study.

Table 3: Financial Performance

Statement		ME	SE	N	NE	NEA	T
Branches credit cycle management	%	9.1	72.7	18.2	0	0	100
Proper credit cycle management to reduces non-performing loans	%	36.4	45.5	0	0	18.2	100
Proper credit cycle management to ensures that branchesare always liquid	%	27.3	54.5	0	18.2	0	100
Proper credit cycle management to improves profit margins of the branches	%	27.3	54.5	0	18.2	0	100
Proper credit cycle management to increase return on investment for the branches	%	18.2	54.5	9.1	18.2	0	100

Table 4: Correlations

		Credit Terms	Clients Appraisal	Credit Risk Control Measures	Credit Collection Policies	Financial performance
Credit Terms	Pearson Correlation	1	-.123	.390**	.106	.359**
	Sig. (2-tailed)		.327	.001	.396	.003
	N		66	66	66	66
Clients Appraisal	Pearson Correlation		1	.368**	.341**	.528**
	Sig. (2-tailed)			.002	.005	.000
	N			66	66	66
Credit Risk Control Measures	Pearson Correlation			1	.504**	.891**
	Sig. (2-tailed)				.000	.000
	N				66	66
Credit Collection Policies	Pearson Correlation				1	.287*
	Sig. (2-tailed)					.019
	N					66
Financial performance	Pearson Correlation					1
	Sig. (2-tailed)					
	N					66

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Hypothesis One

Ho_1: Credit terms have no significant effect on financial performance of Guaranty Trust Bank Rwanda PLC.
The results show that the significant value of credit term was 0.003 which is less than the p-value (0.05). Therefore, the study rejected the null hypothesis while it accepted the alternative hypothesis. In addition, the study found that the correlation value between credit terms and financial performance was found to be 0.359 which represented a weak positive relationship between credit terms and financial performance. Hence, the study concluded that there was a significant positive relationship between credit term and financial performance of Guaranty Trust Bank.

Hypothesis Two

Ho_2: Client appraisal has no significant effect on financial performance of Guaranty Trust Bank Rwanda PLC.

The results show that the significant value of client appraisal was 0.000 which is less than the p-value (0.05). Therefore, the study rejected the null hypothesis while it accepted the alternative hypothesis. In addition, the study found that the correlation value between client appraisal and financial performance was found to be 0.528 which represented an average positive relationship between client appraisal and financial performance. Hence, the study concluded that there was a significant positive relationship between client appraisal and financial performance of Guaranty Trust Bank.

Hypothesis Three

Ho_3: Credit risk control has no significant effect on financial performance of Guaranty Trust Bank Rwanda PLC.

The results show that the significant value of credit risk control was 0.000 which is less than the p-value (0.05). Therefore, the study rejected the null hypothesis while it accepted the alternative hypothesis. In addition, the study found that the correlation value between credit risk control and financial performance was found to be 0.891 which represented a strong positive relationship between credit risk control and financial performance. Hence, the study concluded that there was a significant positive relationship between credit risk control employed by Guaranty Trust Bank Rwanda and their financial performance.

Hypothesis Four

Ho_4: Credit collection policies have no significant effect on financial performance of Guaranty Trust Bank Rwanda PLC. The results show that the significant value of credit collection policies was 0.019 which is less than the p-value (0.05). Therefore, the study rejected the null hypothesis while it accepted the alternative hypothesis. In addition, the study found that the correlation value between credit collection policies and financial performance was found to be 0.287 which represented a weak positive relationship between credit collection policies and financial performance. Hence, the study concluded that there was a significant positive relationship between credit collection policies and financial performance of Guaranty Trust Bank Rwanda PLC.

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.948[a]	.899	.892	1.43813
a. Predictors: (Constant), Credit terms, Clients appraisal, credit risk control, credit collection policies				

Table 6: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1122.930	4	280.733	135.737	.000[b]
	Residual	126.160	61	2.068		
	Total	1249.091	65			
a. Dependent Variable: Financial performance						
b. Predictors: (Constant), Credit terms, Clients appraisal, credit risk control, credit collection policies.						

Table 7: Coefficient ME

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Std. Error		
1	(Constant)	5.249	1.749		3.001	.004
	Credit Terms	.095	.055	.081	1.735	.088
	Client Appraisal	.565	.086	.305	6.532	.000
	Credit Risk control	.895	.055	.883	16.219	.000
	Credit Collection Policies	.309	.055	.270	5.617	.000

a. Dependent Variable: Financial Performance

Finally, the regression coefficients of the study were found to be:

Financial Performance (Y) = 5.249 + 0.095 Credit Terms + 0.565 Clients appraisal + 0.895 Credit risk control + 0.309 Credit collection policies. The findings of the study showed that client appraisal, credit risk control and credit collection policies were very significant variables with regards to the study since their significant value was found to be 0.000 which was less than the p-value (0.05). However, credit term was not a statistically significant variable in the study.

7. Conclusions and Recommendations

7.1 Conclusions

The study concluded that there exists a significant positive relationship between credit term and financial performance of Guaranty Trust Bank. In addition, Guaranty Trust Bank did not charge very high interest rate on loans given or use short repayment period for the loans granted. Guaranty Trust Bank had a well-documented credit cycle management policy. However, the respondents were not sure whether Guaranty Trust Bank used rigid lending terms and whether credit committees were always involved in making decisions regarding loans are essential in reducing default/credit risk.

There exists a significant positive relationship between client appraisal and financial performance of Guaranty Trust Bank. At loan appraisal and subsequent approvals were on the basis of borrower's capacity, character, condition, credit history and collateral and Guaranty Trust Bank considered financial and physical characteristics in credit scoring models for individual loans. In addition, the credit reference bureau in choosing the right customers to lend to, conducted credit risk analysis on individuals and businesses before lending and had strategies for granting credits.

There was a significant positive relationship between credit risk control employed by Guaranty Trust Bank and their financial performance. The study concluded that imposing loan size limits was a viable strategy in credit management, regular credit checks enhanced credit risk management and the use of customer credit application forms improved monitoring and credit risk management. In addition, the study concluded that Guaranty Trust Bank had a credit manual that documents and explains the strategies for credit risk management and strict adherence to loan on-boarding and approval levels as per the credit cycle management policy improved loan performance.

The study concluded that there was a significant positive relationship between credit collection policies and financial performance of Guaranty Trust Bank. Majority of the respondents No Effects d that constant restructuring of non-performing loans to good book reduced the levels of non-performing loans. However, majority of the respondents Some Effects that improved follow up post migration to NPL improved collection and classification to good book, strict system related to credit performance monitoring led to enhanced loan performance. In addition, majority of the respondents Some Effects those sufficient annual budget allocations for loan monitoring and collection guaranteed good asset quality and writing off NPLs minimized the levels of non-performing loans.

7.2 Recommendations

In order to improve financial performance of banks in Rwanda, the study recommends: Banks should use rigid lending terms and credit committees should always be involved in making decisions regarding loans are essential in reducing default/credit risk. Secondly, there should be

Some Effects client appraisal before issuance of any loans in order to reduce NPLs since the study found out a significant positive relationship between client appraisal and financial performance of banks. Thirdly, there should be strict adherence to loan on-boarding and approval levels as per the credit cycle management policy of each bank in order to improved loan performance. Lastly, banks should not restructure non-performing loans to good book since restructuring of non-performing loans does not reduce the levels of non-performing loans.

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