Credit Risk Management Strategies Reviews and Performance of Commercial Banks in Tanzania

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Abstract
The Government of Tanzania has undergone various reviews on credit risk management strategies at different periods of time including 2008 and 2014 for the purpose of ensuring bank stability and good performance. Despite all these reviews, performance and stability of most commercial banks in Tanzania has become a challenge. This study, therefore, assessed empirically the level at which commercial banks in Tanzania implement new credit risk management strategies and then whether the reviews made on these strategies reduced or increased the non-performing loans (NPL) and profits respectively. The study applied a cross-sectional design. Purposive sampling technique was used to obtain a sample size of 120 respondents based on their position and status. Primary data were collected using a self-administered questionnaire while secondary data were collected using audited financial statements. The primary data were analysed descriptively and inferentially by computing descriptive statistics and using a multiple linear regression model respectively. Results showed that there was high implementation on reviewed credit risk management strategies by commercial banks. Findings from regression analysis showed that risk control and risk monitoring strategies had negative and positive significant effects on NPL and return on equity (ROE) respectively. More efforts should be put in place to ensure that all commercial banks continuously implement reviewed credit risk management strategies, especially risk control and monitoring strategies. The limitation of this study is that it concentrated more on commercial banks and ignored other financial institutions which were also affected by regulatory reviews of 2014. Thus, similar studies should be conducted using other regulatory requirements reviews not captured in this study.

Key words: Credit risk management strategies, ROE, NPL, and commercial banks.
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1. Introduction

Commercial banks and their risk problems have become a topical issue that draws an attention to most bank stakeholders. Credit risk has been observed to affect the performance of the financial sector; as a result, financial crises occur leading to failure of most banks (Rachman et al., 2018; Amuakwa-Mensah et al., 2017; Isanzu, 2017; Ozurumba, 2016; Chimkono et al., 2016). The World Bank Group (2018) reports the trend of credit risk in various countries to be as follows: San Marino 53.2%, Ukraine 52.85%, Greece 41.99%, Russia 10.12%, Cyprus 19.52%, Italy 8.39%, Portugal 9.43% and Croatia 9.71%. Apart from the European continent, in the Asian continent credit risk was as follows: Lebanon 10.26%, Bangladesh 9.89%, India 9.46%, Maldives 8.9%, Afghanistan 8.89% and Pakistani 7.97% while in America credit risk was: Dominica 17.02%, Saint Lucia 10.03% and Barbados 6.35%. Credit risk was relatively worse in Africa; World Bank (2018) reported credit risk trend in Africa to be as follows: Equatorial Guinea 36.68%, Chad 28.63%, Angola 23.24%, Democratic Republic of Congo 18.20%, Ghana 18.19%, Djibouti 18.06%, Kenya 11.69%, Nigeria 11.67%, Tanzania 9.93% and Rwanda 6.43%. However, the World Bank report has shown that other countries reported low credit risks, for example Malawi reported 2.83% which is lesser than the world average of 5%.

According to Ugoani (2016), Kodithuwakku (2015) and Lalon (2015); weak credit risk management strategies are the main cause why many banks today collapse. Failure to apply properly credit risk management strategies has resulted into collapse and merging of many banks in the world today. For instance, Jiang et al. (2018) reported a collapse of Southern Bank in the USA in the year 2010. Similarly, according to Ugoan (2016), the Central Bank of Nigeria liquidated Twenty five CBs in Nigeria. Nonetheless, in Ghana, in 2018, five banking institutions were stopped from operations and then amalgamated into a single bank by the Central Bank of Ghana (Asiama & Amoah, 2018). In Kenya, following the regulatory requirements amendments in the year 2013, Dubai Bank was placed in liquidation while Imperial and Chase Banks were reported bankrupt by the Central Bank of Kenya CBK (2018). In all these events it was reported that failure to manage credit risk was one of the reasons for most banks' collapse. The same situation occurred in Tanzania where, in January, 2018 the Bank of Tanzania (BoT) closed five banks due to failure to comply with capital adequacy requirements and high NPL reported. It was reported that Twiga Bancorp and Bank M were among the banks that were closed and, therefore, the BoT ruled out to combine them with Tanzania Postal Bank and Azania Bank respectively (BoT, 2016; 2018).

Many banks fail due to high credit risk; hence, effective risk management strategies such as risk identification, risk measurements, risk control and risk monitoring are needed to ensure that banks reduce credit risk exposures. Various credit risk management strategies have been proposed by the BoT in the credit risk management guidelines of 2010 and in the reviewed credit risk management regulations of 2014. Despite the emphasis made by BoT on these strategies, still the trend of NPL in Tanzania is not stable (which is above the world standard of 5%); it stood at 6.6% in 2009, 7.8% in 2010, 5.4% in 2011, 6.4% in 2012, 5.1% in 2013, 6.6% in 2014, 8.6% in 2015, 9.6% in 2016, 11.5% in 2017 and 9.93% in 2018. Besides, the performance and efficiency of some financial institutions in the country are not good**.** For instance, Return on Assets (ROA) declined to 2.49% from 2014 to 2015 and to 2.09% from 2015 to 2016 while Return on Equity (ROE) declined to 12.16% from 2014 to 2015 and to 9.26% from 2015 to 2016 (BoT, 2016). Net profit declined from TZS 438/= billion in 2014 to TZS 423/= billion in 2015 and TZS 286/= billion between 2016 and 2017. It is not empirically known whether the current performance of banks in Tanzania is associated with the application of the reviewed credit risk management strategies or there are other factors in place. This study adds knowledge to the literature by assessing the extent to which commercial banks in Tanzania implement the new credit risk management strategies, and then determining whether the amendments made in credit risk management strategies improve bank performance or probably banks adhere to the strategies just for law obedience purpose. The increase in number of financial institutions and many changes in technology together with the major regulatory requirements reviews of 2014 in Tanzania motivated this study to be conducted. But also, the collapse of some banks in 2018 and merging of other banks motivated this study to be undertaken.

Lalon (2015) assessed the relationship between credit risk management practices and profitability of banks. The study observed that risk appraisal and identification have positive and significant relationship with banks' performance. Another study was conducted by Singh and Sharma (2018) on the Indian public sector banks from 2011 to 2016; the results showed that there were significant and positive relationships between Return on Assets (ROA) and Capital Adequacy Ratio (CAR), Loss Provision to Non-Performing Loans (LPNPL), whereas ROA and Non-Performing Loans to Total Loans (NPLR) had negative relationship. This finding is also supported by findings by Kodithuwakku (2015), Gizaw et al., (2015) and Taiwo and Taiwo (2013) who also noted that there was a positive and significant relationship between credit risk management practices and profitability of banks.

A study by Wanjagi (2018) observed that credit appraisal positively influenced bank performance but insignificantly; risk monitoring had a negative but insignificant, while risk identification, risk measurement and risk control had positive and significant effects on bank performance. The findings imply that more risk identification, risk measurement and controls helped banks to mitigate credit risk exposures to a great extent. This situation enabled banks to earn high income that could be used to improve quality of bank services; banks could also manage to retain more customers and attract new customers through the existing customers; customers could be attracted to take more loans. Not only that, but also the lower the risk the less the fear of losing money from customers.

Mogga et al. (2018) found that risk appraisal and risk identification had positive but insignificant effect on bank performance while risk monitoring had a positive and significant effect. The study observed that the increase in the application of risk appraisal and risk identification strategies improved customer satisfaction among bank customers. Another study was done by Catherine (2020) who noted that risk appraisal and risk control practices had positive and significant effects on bank performance. On the other hand, a study by Gakure et al. (2012) observed that risk identification and monitoring had positive and significant relationships with bank performance. Considering these studies, the majority of them were conducted outside Tanzania, and their findings cannot be generalized to Tanzania as we differ on many aspects, including on regulatory requirements. In the case of Tanzania, most studies concentrated on determinants of bank performance and efficiency; see for example, Malimi (2017), Mataba and Aikaeli (2016), Amin et al. (2014), Kaaya and Pastory (2013), Pastory and Mutaju (2013), and Qin and Pastory (2012).

Ranchman et al. (2018) empirically investigated the bank-specific factors affecting credit risk in developing countries in Indonesia with a sample of 36 CBs listed in the Indonesia Stock Exchange between 2008 and 2015 using a panel regression model. The results showed that banks' profitability and growth were not influenced by the number of NPLs while other variables like operating efficiency, capital adequacy, among others, suggested positive influence of credit risk, measured by NPL. Boudriga et al. (2010) found that an increase in credit provided lower loan default, implying an inverse relationship among credit growth and NPLs. Similarly, Ekanayake and Azeez (2015) found that banks with a high level of credit expansion were connected with a reduced level of credit risk. Alexandri and Santoso (2015) researched on the impact of NPLs and found that bank efficiency had a positive significant effect on NPL. These studies widely focused on determinants of credit risk as measured by NPLs and said

nothing or little on the impact of credit risk strategies used by banks to minimize credit risk. Based on the reviews made, this study tested the null hypotheses that: Risk identification, risk measurements, risk control and risk monitoring have no significant effect on the financial performance of commercial banks in Tanzania.

2. Methodology

This study was conducted at Dar-es-Salaam region in Tanzania. The region was selected because it is the headquarters of most banks. Cross-sectional design was used in this study because it would allow the researcher to collect data from many available banks at once in time. This study used a sample of twenty four (24) registered commercial banks from the target population of thirty six (36) banks. The reason of choosing only 24 commercial banks was based on only banks which were in existence since 2008. The year 2008 was considered as a base year during the sampling process because during this period the BoT did major amendments on banks regulatory requirements including credit risk management requirements, which were followed by other new amendments in 2014.

From each sampled bank, the researcher collected primary data based on three departments (finance, credit, and compliance/risk management departments). The credit department gave out three bank officers, namely credit manager, credit supervisor, and credit officer having different roles and responsibilities. The finance department provided the finance manager while the compliance and risk management department provided the compliance and risk management manager, hence making a total of 5 bank officers from each bank. Based on the 24 selected commercial banks, primary data were collected from a total sample of 120 respondents. The three departments and the bank officers chosen are relevant to the credit risk management practices; Mogga et al. (2018), Wanjagi (2018) and Kinyua et al. (2015), in their studies, interviewed loan officers, loan supervisors, relationship managers, monitoring officers and credit managers. In this study, purposive sampling was used to select 24 commercial banks. Stratified random sampling method was used to select the number of departments while the functional units were grouped into divisions called departments, and then the heads of divisions from each department were selected purposively because of their positions.

Primary data were collected using a semi-structured questionnaire in the commercial banks in Dar es Salaam while secondary data were collected using documentary reviews in which data were extracted from published financial statements. The coefficient of determination (R-square) showed the extent to

which the variation in the performance of commercial banks was influenced by changes in credit risk management strategies. The result was used to test the model's significance while correlation analysis was done to quantify the association between pairs of continuous variables.

Before using the research instrument for the main survey, it was tested to ascertain whether it was valid. Since content validity is not numerically measured, but it relies on opinions of experts, to check the validity of the research instrument it was subjected to panel of experts in selected 6 commercial banks in Moshi for pilot testing to determine its content validity. The supervisors went through the questionnaire to assess whether it was relevant; they corrected errors and finally gave comments which were incorporated. Moreover, Cronbach's Alpha test was conducted for each variable. In this test, a decision of accepting a question was achieved at a Cronbach's Alpha value of 0.7 and above. The test results indicated that the 6 questions used to measure both risk identification and risk measurement strategies had overall Cronbach's Alpha values of 0.845 and 0.902 respectively, while the 5 questions used to assess both risk control and risk monitoring strategies had overall Cronbach's Alpha values of 0.794 and 0.963 respectively. The test results gave an overall Cronbach's alpha value of 0.876 for all the 22 questions used; hence, all the questions were considered appropriate and relevant for the study because the Cronbach's alpha was higher than 0.7. Sample adequacy test was performed using Kaiser-Meyer-Olkin (KMO). The values of KMO were all greater than 0.6 as recommended by Field and Miles (2012). It can, therefore, be concluded that the sample was adequate to conduct confirmatory factor analysis since the KMO test ascertained the sample adequacy to conduct a confirmatory factor analysis (CFA). The results indicated that all the factor loadings for the constructs were above the given threshold of 0.4; hence they were not removed from the questionnaire during the main survey.

Normality tests were done through Kolmogorov-Smirnov Z tests at 1%; the results confirmed a normal distribution of the population. Ahad et al. (2011) contend that Kolmogorov-Smirnov test is the most appropriate test for testing normality of variables. It was found that the data were normally distributed, which was indicated Kolmogorov-Smirnov values that were greater than 1% significance level which confirmed adherence to the normality assumption. To determine whether a linear relationship existed between the independent and dependent variables, Pearson correlation coefficients were computed to test this. Generally, all the independent variables had positive strong relationship with bank performance. In that case, the use of linear regression model was justified. Variance Inflation Factor (VIF) method was used to test for multicollinearity

using VIF $=\left(\frac{1}{1-r^2}\right)$ whereby r^2 is the coefficient of determination of explanatory variables. In this method, VIF values > 10 signals the presence of multicollinearity. It can therefore be argued that using bank performance the independent variables did not have the problem of multicollinearity because the VIF values were below the recommended threshold of 10. It was therefore suitable to run the linear regression models for bank performance variables since the error terms would not be inflated. Multiple linear regression models were applied to establish the relationship between credit risk management strategies and performance. Likert scale aggregate mean and six years' ratio analysis were used to measure independent and dependent variables respectively. The regression models for both ROE/NPL were specified as follows:

$$\mathbf{ROE = \beta_0 + \beta_1 RID + \beta_2 RME + \beta_3 RCO + \beta_4 RMO + \varepsilon} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\mathbf{2.1}$$

$$\mathbf{NPL = \beta_0 + \beta_1 RID + \beta_2 RME + \beta_3 RCO + \beta_4 RMO + \varepsilon} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\mathbf{2.2,}$$ where:

NPL = Non-performing Loan (ratio of non-performing loans to total loans),

ROE = Return on Equity (ratio of net income to total equity),

$\boldsymbol{\beta_0, \beta_1, \beta_2}$ **&** $\boldsymbol{\beta_3}$ **=** Beta coefficients, **RID** = indicators of risk identification, **RME** = indicators of risk control, **RMO =** indicators of risk monitoring, and $\boldsymbol{\varepsilon}$ = Error Term.

3.0 Results and Discussion

3.1 Descriptive Statistics

Table 1: Credit Risk Management strategies

Strategies	Mean	S.D.
Risk identification		
Risk identification process is well coordinated in our bank	4.21	0.52
There is regular inspection by our branch managers on credit activities	3.24	0.78
Most of our staff are well trained on risk identification	2.85	1.46

Payment records of customers will enhance measures to improve banks' book of accounts	4.37	0.42
Subsequent loans appraisals and approvals are performed on the basis of the credit history	3.59	0.96
Credit referencing assists in mitigating credit risks for banks books of financial performance	2.67	1.53
Aggregate mean Score and Standard Deviation	**3.48**	**0.945**
Risk measurement		
The CAMEL framework is used in identifying relative and future risks.	4.82	0.31
The bank dictates the loan size limits that one qualifies for on the basis of their financial history The use of a credit committee reduces the chance of default	3.31 4.62	0.83 0.75
Borrower's credit ratings reduce the bank's exposure to risks	4.09	1.47
Consistency in applying credit rating improves loan performance	3.21	1.03
Our institution has well set up and elaborated procedures on appraising risk.	4.25	0.89
Aggregate mean Score and Standard Deviation	**4.05**	**0.88**
Risk control		
Credit control affects the level of credit rationing	4.19	1.12
Credit rationing influences the amount of loan approved vis-à-vis the loan applied	4.41	1.34
Lack of proper assessments to a borrower's loan repayment capability leads defaults.	4.20	0.71
Loan securitization enables the bank to improve its financial performance	4.32	0.75
Any client is allowed to invest in securitized loans.	4.16	1.84
Aggregate mean Score and Standard Deviation	**4.40**	**1.20**

Risk monitoring		
Bank loan officers interact with their customers prior to giving them loans	4.42	1.49
Most customers are not aware of the legal terms and conditions of a loan.	4.71	0.49
Interaction with bank staff provides borrowers with crucial information regarding their suitability for the loan applied.	4.56	0.51
The bank uploads a borrower's loan directory to have up to date information regarding their financial status.	4.11	0.94
Updated customer data enables the bank to easily make assessments regarding loan issuance.	4.01	1.05
Aggregate mean Score and Standard Deviation	**4.16**	**0.90**

Source: Survey Data (2020)

The results on Table 1 are for the implementation of credit risk management strategies. Overall, the results on risk identification show that most of the respondents were neutral on whether their institutions implemented properly risk identification strategies as a tool for mitigating credit risk exposures. The respondents of the study agreed that risk identification was well coordinated in their bank, and most of them supported that payment records of customers enhanced measures to improve banks' book of accounts as shown by the mean scores of 4.21 and 4.32 respectively. The respondents were neutral on the statement that there is regular inspection by branch managers on credit activities, and also most of the respondents were not sure on whether subsequent loans appraisals and approvals would be performed on the basis of the credit history as shown by the mean scores of 3.24 and 3.59 respectively. This implies that the respondents were uncertain whether branch managers really performed their roles regarding credit risk management exercise. Finally, the respondents disagreed with the statement that most of their staff members were well trained on risk identification. They also disagreed on whether credit referencing assisted in mitigating credit risks for banks' books of financial performance as shown by the mean scores of 2.24 and 2.67 respectively.

Considering risk measurements, the findings in Table 1 show that most of the respondents agreed on the use of CAMEL framework and also supported that borrowers' credit rating reduced the bank's exposure to risks. Besides, most respondents affirmed that the use of credit committee greatly reduced the chances of default and, similarly, most respondents admitted that banks had well set up and elaborated procedures on appraising risk as indicated by mean scores of 4.82, 4.62, 4.09 and 4.25 respectively. Furthermore, the findings show that most respondents were not sure whether loan size limits and banks credit rating improved loan performance as shown by mean scores of 3.31 and 3.21 respectively. The results are similar with the findings by Wanjagi (2018) and Mogga et al. (2018) who noted the same. Coming to the part of risk control, the findings show that risk control had a great influence on the financial performance of commercial banks where credit control affected the level of credit rationing. Credit rationing also influenced the amount of loan approved against the loan applied as indicated by the mean score of 4.41. Therefore, a lack of proper assessment to a borrower's loan repayment capability leads to default. The highest mean of the data was 4.20, indicating that lack of proper assessments negatively impacted repayment capability. According to the research findings, loan securitization enables the bank to improve its financial performance. A mean of 4.32 was obtained from the research, indicating that a huge number of credit officers agreed that securitization greatly improves performance. Lastly, the findings in Table 1 show that there was high usage of risk monitoring strategies in dealing with the credit risk management activity. A mean of 4.42 was obtained which indicates that the majority of the loan officers agreed that customer-to-client relationship was large. The mean of 4.71 indicates that customers lacked knowledge on legal terms and conditions of a loan while the mean values of 4.11 and 4.01 indicate that banks uploaded borrowers' loan directory which enabled the bank to easily make assessments regarding loan issuance as shown by the mean scores of 4.11 and 4.01 respectively.

3.2 Hypotheses Testing

3.2.1 Coefficient of Determination

Table 2: Model Summary

Model	R	R –Square	Adjusted R – Square	Std. Error of the Estimate
NPL	0.935	0.874	0.871	3.47551
ROE	0.876	0.767	0.762	1.14084

Predictors: (constant),(risk identification, risk assessment, risk control and risk monitoring strategies)

Source: Survey Data (2020)

Table 2 indicates findings of the adjusted R-square values of 0.871 for NPL and 0.762 for ROE. These findings imply that the regression model linking NPL and ROE was normal (no overestimation). These finding mean that about 87.1% and 76.2% of changes in NPL and ROE of the sampled banks could be influenced by the four indicators of credit risk management strategies. Moreover, Table 3 presents ANOVA results which show model fitness.

Table 3.0 ANOVA Results

Model		Sum of Squares	Df	Mean Square	F	Sig.
NPL	Regression	216.289	4	71.233	316.703	0.000
	Residual	29.67	171	0.238		
	Total	245.959	175			
ROE	Regression	375.249	4	87.218	154.502	0.001
	Residual	75.017	171	0.895		
	Total	450.266	175			

Predictors: (constant),(risk identification, risk assessment, risk control and risk monitoring)

Source: Survey Data (2020)

The ANOVA results indicated in Table 3 show that, for the regression model connecting NPL and ROE with credit risk management strategies, the F statistic values of 316.703 and 154.502 for NPL and ROE were important at the 5% level of significance (Sig = 0.000 and 0.001) respectively. The implication of this result is that the model linking NPL and ROE with the four indicators of credit risk management strategies was of good fit.

3.2.2 Multiple Regressions

Two multiple regression models ROE & NPL were used to establish the relationship:

$$NPL = \beta_0 + \beta_1 RID + \beta_2 RME + \beta_3 RCO + \beta_4 RMO + \varepsilon$$

$$ROE = \beta_0 + \beta_1 RID + \beta_2 RME + \beta_3 RCO + \beta_4 RMO + \varepsilon$$

Table 4: Regression Model Coefficients

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
NPL	Constant	4.037	0.291		13.762	0.000
	Risk identification	-7.231	0.178	-0.243	-16.701	0.039
	Risk measurements	-5. 702	0.132	-0.115	-8.253	0.061
	Risk controls	-0.183	0.083	-0.042	-3.210	0.022
	Risk monitoring	-2.109	0.763	-0.108	-6.407	0.046
ROE	(Constant)	76.592	5.505		-18.203	0.000
	Risk identification	8.241	3.236	0.246	2.534	0.073
	Risk measurements	5.832	2.514	-0.221	-2.310	0.064
	Risk controls	3.901	1.793	0.148	1.906	0.013
	Risk monitoring	10.766	1.759	0.486	6.099	0.001

Source: Survey Data (2020)

Optimal Model

NPL = 4.037-7.231 (Risk Identification Strategies) -5.702 (Risk Measurement Strategies) -0.183(Risk Controls Strategies) -2.109 (Risk Monitoring Strategies)
ROE = (76.592) + 8.241 (Risk Identification Strategies)) +5.832 (Risk Measurement Strategies) + 3.901 (Risk Controls Strategies) + 10.766 (Risk Monitoring Strategies)

The regression results in Table 4 show that credit risk management strategies (Risk identification, risk measurements, risk control and risk monitoring) had no significant effect on financial performance of commercial banks in Tanzania. Considering PL variable; risk identification, risk measurement, risk control and risk monitoring had beta coefficients of -7.23, -5.702, -0.183 and -2.109 whose concomitant p-values were 0.039, 0.061, 0.022 and 0.046 respectively. These results shows that risk identification, risk control and risk monitoring negatively and significantly affected NPL of commercial banks in Tanzania because their p-values were less than 5% level of significant while their coefficients were negative. This led to the rejection of the null hypotheses that risk identification, risk control and risk monitoring have no significant effect on NPL of commercial banks in Tanzania, but the null hypothesis that risk measurement has no significant effect on NPL of commercial banks was not rejected because its p-values was greater than 5% level of significance. The findings imply that an increase in one unit of risk identification, risk measurement, risk control and risk monitoring strategies led to a decrease in NPL of the commercial banks in Tanzania by 7.231, 5.702, 0.183 and 2.109 units respectively. Therefore, the more banks use risk identification, risk control and risk monitoring strategies the lower the credit risk exposures. These findings are consistent with the findings obtained in a study by Muteti (2014) who observed that financial risk management techniques have negative and significant relationship with risk exposures.

Furthermore, the findings presented in Table 4 indicate that when taking into considering the ROE variable, the results showed that risk identification, risk measurement, risk control and risk monitoring strategies had beta coefficients of 8.241, 5.832, 3.901 and 10.766 respectively, and their p-values were 0.073, 0.064, 0.013 and 0.001 respectively. This shows that risk control and risk monitoring strategies positively and significantly affect ROE of commercial banks in Tanzania which is shown by their p-values that were less than 5% level of significant. This led to the rejection of the null hypotheses that risk control and risk monitoring strategies have no significant effect on ROE of commercial banks in Tanzania, but the null hypothesis that risk identification and risk measurements have no significant effect on ROE of commercial banks was not reject because

the p-value was greater than 5% level of significant. The findings imply that an increase in one unit of risk identification, risk measurement, risk control and risk monitoring would lead to an increase of ROE of the commercial banks in Tanzania by 8.241, 5.832, 3.901 and 10.766 units respectively. These findings are consistent with the findings obtained in a study by Mogga et al. (2018) who observed that risk appraisal and risk monitoring had positive and significant effect on ROE and ROA of commercial banks in Juba city, South Sudan.

4.0 Conclusions and Recommendations

This study aimed at assessing the effect of credit risk management strategies on financial performance of selected commercial banks in Tanzania for the period of 6 years after review from 2014 to 2019. The results indicate that there is a significant relationship between risk identification, risk control and risk monitoring strategies and NPL of commercial banks in Tanzania. However, risk measurements have negative but insignificant relationship with NPL. For ROE, regression results showed that risk control and risk monitoring positively and significantly affected ROE of commercial banks in Tanzania, which was shown by the p-values that were less than 5% level of significant while risk identification and risk measurements had positive but insignificant relationship with ROE of commercial banks in Tanzania. This implies that the higher the use of securitization/collaterals, credit rationing, proper assessment of borrowers, higher interaction with customers after issuing loans, high awareness of borrowers on legal terms and conditions of loans and frequent updating of customers data base generally improve the financial performance of commercial banks in Tanzania. The study therefore, concludes that risk monitoring and risk control strategies have statistically significant effect on financial performance of commercial banks in Tanzania as measured by ROE and NPL.

Based on these findings, the following are the proposed recommendations from this study. To the commercial banks, it is recommended that commercial banks should improve their assessment criteria on borrowers' loan repayment capability, including customers' capacity, capital, collateral, character and condition before granting loans. Also, loan officers should improve interaction with their customers before and after issuing loans to ensure that customers get crucial information regarding suitability of loans they applied for and or received. Besides, physical visits to customer's business premises improve more bank-customer relationships, which reduce loan defaults. Furthermore, banks need to frequently update customers' data bases so as to have up to date customer's information regarding their financial status**.** To the regulator, the study

recommends that more efforts should be put in place to ensure that all commercial banks continuously implement credit risk management strategies.

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