
A COMPARATIVE STUDY AMONG LIQUIDITY RISK, CREDIT RISK AND INTEREST RATE RISK ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS

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*Regardless developed or developing, banking sector serves as the spine of the economy of a country. Financial risks played a major role in the global banking crisis which occurred in the past decades. After which financial risks remained a major topic of interest globally. The aim of the study was to establish a comparative study among liquidity risk, credit risk and interest rate risk on financial performance of commercial banks listed in Rwanda Stock Exchange. The study was underpinned on financial distress theory, interest rate parity theory, stewardship theory and shiftability theory. Descriptive research design is used in the study. Target population of the study constituted all the banks listed in Rwanda Stock Exchange. Random panel technique for panel data based on period of 2009 to 2018 was key. Data was analyzed through multiple linear regression analysis. Credit risk amongst the sub variables was highly influenced by financial performance which reported a t-value of -5.382 hence the most significant. As contribution to knowledge. It employed both E-views and SPSS software for analysis, which are unique software's. The results of the study revealed that all three risks had a significant effect on financial performance of commercial banks listed in Rwanda Stock Exchange. **Conclusion:** Out of all the risks considered, interest rate risk had a positive effect on financial performance whereas liquidity risk, and credit risk had a negative effect on financial performance. However, credit risk amongst the sub variables was highly influenced by financial performance which reported a t-value of -5.382 hence the most significant. This was followed by interest rate risk and liquidity risk with t values of 2.711 and -2.525 respectively.*

Recommendation: The result inferred that credit risk amongst the sub variables was highly influenced by financial performance. Hence the recommendation is that commercial banks should continuously formulate measures that enable them to give special attention to credit risk management and interest rate risk tackling, without denying the intermediation among deposits and loans since any neglect in these will in turn affect the financial performance of commercial banks.

Keywords: Liquidity risk, Credit risk, Interest rate risk, Financial Performance, Data Panel.

1.0 BACKGROUND

Whether a country is developing or developed, banking industry is included among the core sectors in a country's economy and it plays a vital role in the countries' economy. Banking operations carried out by commercial banks together with the services offered are diverse and well spread out. The main operations undertaken by them are divided into two, namely; primary and secondary operations. Their primary functions include accepting deposits, advancing loans, creating credit. However, banks carry forward the practice of lending as the vital principal operation. This is due to the reason that they make profit based on this function of theirs'.

Over the past few decades, researchers have mentioned about many financial risks that commercial banks faces in their day to day activities, namely; equity risk, liquidity risk, interest rate risk, currency risk, asset- backed risk, foreign exchange risk, credit risk among others. These risks contribute negatively in terms of how an organization will perform financially (Muriithi,2016).Obed(2020),these risks are interdependent and events affecting one area can have ramifications and penetrations for a range of other categories of risk. According to Diffu (2011) the crisis experienced worldwide during the period 2007 to 2009 affected the financial steadiness and their economic performance, but it sharpened banks on the importance to hedge against risk by implementing the necessary methods. Financial crisis that affected globally during the past few decades had become a learning opportunity for the global banking industry about how relevant it is to implement adequate measures for liquidity management so that they can tackle adverse crisis. Similarly, as the case of credit risk and interest rate risk is concerened, Ekrami and Rahnama(2009) inferred that high amount of nonperforming loans represents high risk in today bank system and this encounters banks with market risks and liquidity risks. According to the above researcher, even though banks are trying to control the risks within the organisation, but high percentage of these risks and its consequences for the future could not be ignored. Similarly, interest rate risk also cannot be ignored as there has always been an interest war among the banks in this global era.

Rwanda's financial sector is over powered by commercial banks, which account for approximately two-thirds of the total financial sector assets, followed by the pension fund (17.4 percent), insurance (9.8 percent), and

MFIs/SACCOs (6.6 percent) (World Bank, 2018). According to Sanjeev Anand, the Managing Director of Commercial Bank of Rwanda (BCR), the banking sector at the end of 2008 was suffering from high levels of Non-Performing Loans, liquidity issues, poor infrastructure, high operating losses and bad controls. These were the effects of solvency and liquidity risks which were not tackled properly. Poor operational efficiency also contributed to the same. And during the following years, BCR was completely shattered and was taken over by I&M PLC.

Banks compete among each other by the volatile rate of interests, which in turn inherit the risk associated with it. Similarly, variability in the nonperforming loans ratio induces credit risk, inefficiencies in the management of deposits and loans induces liquidity risk. All the banks listed in Rwanda Stock Exchange have reported in their annual reports that they are suffering from liquidity risk, interest rate risk and credit risk. On the light of these issues, National Bank of Rwanda (2015) ascertained that, risk management and risk-detection can never be complete since there are always unforeseen and unintended aspects of risk environment.

1.1 HYPOTHESIS

- H01 Liquidity risk has no significant effect on financial performance of commercial banks listed in Rwanda Stock Exchange.
- H02 Credit risk has no significant effect on financial performance of commercial banks listed in Rwanda Stock Exchange.
- H03 Interest rate risk has no significant effect on financial performance of commercial banks listed in Rwanda Stock Exchange.

1.2 LITRATURE REVIEW

Liquidity Risk: Financial crisis that affected globally during the past few decades had become a learning opportunity for the global banking industry about how relevant it is to implement adequate measures for liquidity management so that they can tackle adverse crisis. According to Bwacha and Xi(2018) , lack of adequate liquidity would result to failure of banks to meet their obligations when the need arise which would render the entire financial system unstable.

Drehmann and Nikolaou (2013) defined liquidity risk as the possibility that over a specific horizon, the bank will become unable to settle obligations with immediacy.

Credit Risk: The lending nature of banks makes them most prone to credit risk to a great extent. It is a widely accepted fact that inappropriate management measures implanted for handling of loan portfolios and employment of low credit standards for clients are the main reasons for major challenges faced by banking institutions. Non-performing loan ratio(NPLr) is one among the most used ratios as a means to assess credit risk intervened by commercial banks. In other words, this is due to the reason that at the instance of the deal among the parties regarding lending, the bank ascertains the probability of default by the client so as to calculate the expected loss. But due to any reason, if the client reaches a situation where the fund borrowed couldn't be given back (for example bankruptcy), such funds are termed as non-performing assets. Ekrami and Rahnama(2009) inferred that high amount of nonperforming loans represents high risk in today bank system and this encounters banks with market risks and liquidity risks. According to the above researcher, even though banks are trying to control the risks within the organisation, but high percentage of these risks and its consequences for the future could not be ignored **Interest rate risk:** Interest rate risk is one of the most important risk which needs to be tackled. This is due to the reason that banks are affected by these risks due to the action of economy. Interest rate risk is given more importance than other types of market risks due to the intermediation nature of banks. According to the understandings of Ponniah et al., (2014) is quite necessary for the banks to shield their profitability from the shocks of interest rate risk. Commercial banks measure interest rate risk as a measure of interest rate sensitivity gap ratio. According to the understandings of Githinji(2013), it is measured by Interest rate sensitivity gap among assets and liabilities with maturity of less than or equal to one year by total assets.

Financial Distress Theory

In real sense, a financial institution is said to have entered in the pothole of financial distress when it is no longer able to come out of its financial crisis which will eventually forces the bank to get merged with other banks or result in getting acquisitioned. This acts as the major reason why financial institutions should keep track of risks and implement adequate risk management measures. According to understandings of Ogden et al, (2002) , the consequences of financial distress on banks are, to say the least, detrimental; owing to the likelihood of protracted negative consequences associated with the narrowing of the margin between cash flows and debt

servicing by such distress when they occur. The theory identifies reasons of impending financial distress thereby making it relevant for studying why it is important and adequate to tackle the effect of risks on financial performance. In other words, it shows importance of research on the relationship between risk management and financial performance of financial institutions (especially commercial banks).

Shiftability Theory: Shiftability is an approach mainly used by financial institutions, especially commercial banks to sustain adequate liquidity by nurturing shifting of their assets. According to this approach when a situation arises where a bank is really in short of liquid cash they can sell or repurchase agreement (repo) their other assets so as to become more liquid. The theory was initially postulated by H.G Mouton and was used by many researchers as a replacement of traditional theory. According to the understandings of Olalekan et al., (2018), the theory is relevant to a study that focuses on the effect of financial risk on financial performance as it provides a clear explanation as to how liquidity risk affects financial performance.

Interest rate Parity Theory: The interest rate parity theory was initially proposed by Keynes (1923). According to this theory, it is assumed that variations in interest rates among two or more trading parties act as the reason for instability of nominal rate of interest. In addition, the difference between foreign countries interest rates and domestic interest rates is the interest rate parity (Odhiambo, 2016). Banks make profit while playing with the interest rates. Higher the interest rates, higher amount will be charged in the form of rate of interest which in turn will enhance the profit making of banks. As far as this study is considered, this theory is adequate since it explains about the parity in rate of interest which is the most important measure in the functioning of banking institutions.

Stewardship Theory: This theory is built on philosophical assumptions about human nature that are essentially honest, capable of performing with full responsibility, have integrity and honesty against others. According to the understandings of Yusuf and Surjaatmadja (2018), customers are considered as stewards to whom the banks give their trust with funds and they will try their best to restore the same without default. According to the above researcher, the managers also work with their best performance overriding all personal interest so as to achieve organizational goals. This theory summarizes how the customers and managers will act in best faith thereby it is appropriate for the study to find out how operational risk and credit risk affect the performance of banks'.

Study Gap: Globally, there are abundant literatures regarding effect of financial risk on financial performance of commercial banks which are available. But when these are studied deeply, the researcher finds that there has been confusion regarding the results. In some studies these risks are said to have positive influence while in others they are supposed to have negative influence. The same variable is termed as having positive effect on one study whereas negative in another. On the best of the researcher's knowledge, even though there are many studies conducted in other parts of the region regarding the effect of financial risks on financial performance of commercial banks, there is no published researches which was conducted in Rwanda involving all the major risks which banks are prone to and financial performance. Hence, the researcher finds it valid to study on the topic.

1.3 RESEARCH METHODOLOGY

1.3.1 Design The study adopted a descriptive research design. It provides the general overview giving some valuable pointers as to what variables are worth testing quantitatively. Through observational method researchers can employ quantitative as well as qualitative observations. According to Kioko et al., (2019), observational method involves directly observing a case scenario so as to obtain information. The study employed this method since it helped the researcher to carry on numerical analysis and also enable to understand the change in existing variables overtime.

1.3.2 Population and Sample Size: According to the report by National Bank of Rwanda, there are 16 licensed banks in Rwanda (BNR, 2020) out of which 4 banks are listed in Rwanda Stock Exchange namely KCB Plc, BK Plc, Equity Group Holdings and I&M Rwanda. Thus the study considered all the 4 banks listed in Rwanda Stock Exchange as the target population. Considering the fact that adequate number of observations for a valid data panel cannot be extracted from one of the banks, chose the sample population of three banks namely KCB, BK limited and Equity group Holdings.

1.3.3 Sampling Technique: The study used purposive sampling technique for extracting sample size, it used secondary sources of data since the required data is already collected by primary sources and made available for the public. The study used secondary data, published by the banks in the form of annual reports from 2009 to 2018. Secondary data are those data that is already available for the public. These data can be gathered through several sources: government publications, books, journals, articles, websites, internal records, and other sources (Ajayi, 2017).

1.4 ANALYSIS & MEASUREMENT OF VARIABLES

Dependent variable of the study was the financial performance of commercial banks calculated by $ROA = (\text{net income} / \text{total assets}) * 100$. Independent variables namely liquidity risk, credit risk, and interest rate risk will be denoted by $LDR = (\text{total loans} / \text{total deposits}) * 100$, $NPLr = (\text{NPL} / \text{total loans}) * 100$, and $INTR = (\text{Interest rate sensitivity gap among assets and liabilities with maturity of less than or equal to one year} / \text{Total Assets}) * 100$ respectively.

The collected data was panelled using E-views and exported to SPSS software so as to conduct multiple linear regression and other diagnostic tests; namely; Jarque-Bera test was conducted to check the normality of the sample, Multicollinearity test was conducted using VIF and tolerance levels, Durbin Watson test was conducted for testing serial correlation and BreuschPagan-Godfrey test was conducted to test for heteroskedasticity. As far as data panel was considered, Haussmann test was performed to test for the most suitable model.

1.4.1 Analytical Model

The study used the analytical model to analyse the effect of financial risks on financial performance of commercial banks in their research. The model was as below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where; Y =Financial performance which was be measured by Return on Assets; X1=Liquidity risk which was be measured by LDR; X2=Credit risk which was be measured by NPLR;and X3=Interest rate risk which was be measured by INTR. β_0 = intercept (constant). Whereas, β_1, β_2 , and β_3 = Coefficients of independent variables which measures the change in ROA for a unit change in independent variable.

1.4.2 Haussman Test

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Test period random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	5.434676	3	0.1426
** WARNING: estimated period random effects variance is zero.			

Source: Research findings E-views output, 2021 According to the understandings of Gujarati (2004), if the number of time series data(T) is larger compared to the number of cross-sectional units(N), there is likely to be low difference among values of the parameters estimated using random effect model(REM) and fixed effect model(FEM).As the case of this study, T=10 years whereas N=3. According to the understandings of Zulfikar(2018), for a $p > 0.05$ from hausman test, random effects is selected. Results denote that p-value is 0.1426 (ie $p > 0.05$).Hence the random effect model was adopted to analyse the effect of financial risk on financial performance of commercial banks.Tassew and Hailu (2019), Odhiambo(2016) inferred p values of 0.4615 and 0.9957 respectively and selected random effect model.

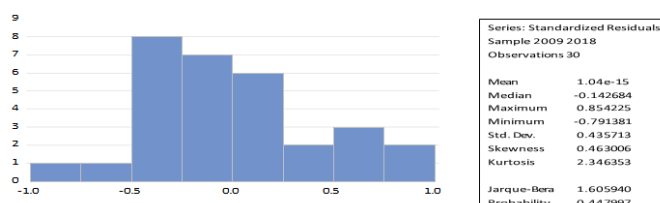
1.4.3 Normality Test

	LDR	NPLR	INTR	ROA
Jarque-Bera	2.687871	0.093783	1.910647	1.656494
Probability	0.260817	0.954191	0.384688	0.436814
Sum	2666.929	194.7101	-720.0768	109.6693
Sum Sq. Dev.	8323.317	109.2133	26610.40	15.75806
Observations	30	30	30	30

Source: Research findings E-views output, 2021

The p statistic of Jarque-Bera is greater than 0.05. Hence the null hypothesis is accepted that the data is normally distributed.

Diagram 4.2 : Normality test for residuals



Source: Research findings E-views output, 2021 From the results, the F-statistic of Jarque Bera is 1.606 whereas the p statistic is 0.447.Hence, the null hypothesis is accepted since $p > 0.05$.Which means that the residuals are normally distributed.

1.4.5 ANOVA^a**1.4.6 Heteroskedasticity Test**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.253	3	3.418	16.139	.000 ^a
	Residual	5.506	26	.212		
	Total	15.758	29			

a. Dependent Variable: ROA

b. Predictors: (Constant), INTR, NPLR, LDR

1.4.4 Autocorrelation Test**Model Summary^b**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.807 ^a	.651	.610	.460164728150	1.621

a. Predictors: (Constant), INTR, NPLR, LDR

b. Dependent Variable: ROA

Source: Research findings SPSS output, 2021

The value is 1.621 (ie close to 2) which indicates that there is no serial correlation in the data sample of the model. According to the study done by Hariemufi et al., (2019), the reading was 1.2149 and inferred that there is no autocorrelation. Similarly, it is inferred that the residuals of the model is not autocorrelated.

1.4.5 Multicollinearity Test**Coefficients^a**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	6.993	.711		9.838	.000		
	LDR	-.016	.006	-.365	-2.525	.018	.644	1.553
	NPLR	-.260	.048	-.686	-5.382	.000	.828	1.207
	INTR	.010	.004	.404	2.711	.012	.606	1.651

a. Dependent Variable: ROA

Source: Research findings SPSS output, 2021

The test utilized VIF value along with tolerance value (ie 1/VIF). All the variables had acceptable tolerance value (ie $0.2 < p < 1$). Similarly the VIF values of the variable lies under 10. The mean value of VIF is 1.470 (ie < 5) while the mean value for tolerance is 0.6926 (ie

< 1). Hence there is no multicollinearity.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.068	3	.023	.456	.715 ^a
	Residual	1.292	26	.050		
	Total	1.360	29			

- a. Dependent Variable: sqres
b. Predictors: (Constant), INTR, NPLR, LDR

Source: Research findings SPSS output, 2021

In this test the square of residual value is tested with independent variable. If the p value is greater than 0.05 then the null hypothesis is accepted (i.e there is no heteroskedasticity). From the results, p is 0.715 (ie

>0.05), thus the null hypothesis is accepted and it is inferred that there is no heteroskedasticity in the residuals of the model.

Descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
		Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
LDR	30	64.94	130.214	88.897	16.941	.772	.427	.177	.833
NPLR	30	2.809	11.188	6.490	1.9406	.096	.427	-.013	.833
INTR	30	-67.467	49.069	-24.002	30.291	.650	.427	.332	.833
ROA	30	2.096	5.259	3.655	.737	.606	.427	.293	.833
Valid N (listwise)	30								

Source: Research findings SPSS output, 2021 Minimum ROA during the study period was 2.10 while the maximum was 5.26. The range for ROA was 3.16 with a mean of 3.66 and standard deviation of 0.737. This in turn means that the banks are making profit and from the standard deviation it is inferred that there is low difference in profits among them.

The liquidity risk (measured by LDR), had a minimum value of 64.95 and maximum of 130.214 with a range of 65.26. The mean was 88.89 and standard deviation of 16.95. However, the great standard deviation implies that banks are having varying liquidity ratios compared to each other while the mean indicates that the liquidity ratio of banks are high. For credit risk (measured by NPLR), the minimum value was 2.809 while the maximum value was 11.19. The range was 8.38 with the mean of 6.49 and standard deviation of 1.941. Which in turn depicts a moderate amount of credit risk tackled by the banks and the standard deviation depicted that there is no much difference of credit risk faced in between the banks. For interest rate risk (measured by INTR), the minimum value was -67.47 while the maximum value was 49.06. The range was 116.53 with the mean of -

24.00 and standard deviation of 30.29. The high standard deviation indicates that the banks are having varying interest rate risk.

The kurtosis test results fall in the range of -3 to +3. This indicates that the distribution is normal. Similarly skewness value for all variables lies in the range of -0.8 to +0.8 indicating normal distribution. Hair et al. (2010) and Bryne (2010) argued that data is considered to be normal if skewness is between -2 to +2 and Kurtosis is between -7 to +7.

1.4.7 Regression Model Summary

Table below shows a model summary of regression analysis among the three independent variables (Loan to Deposit Ratio, Non-Performing Loan Ratio, and Interest rate sensitivity gap ratio) and a dependent variable ROA (Return on Assets). In the model summary R represents quality of prediction of dependent variable and the value is 0.807. Or in other words, R gives the correlation between the independent variables and ROA. R square value is 0.651 and adjusted R square is 0.610. The coefficient of determination (i.e R square) indicates the proportion of variance explained by regression model here R square is 0.651, this means that the three independent variables considered explains

65.1% of the variability of Return on Assets (ROA) is the dependent variable. Therefore there are other factors that affect the profitability of equity bank which constitute for 34.9 %.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	.807 ^a	.651	.610	.46016472 8150	1.621

a. Predictors: (Constant), INTR, NPLR, LDR

b. Dependent Variable: ROA

Source: Research findings SPSS output, 2021

This study managed to explain 65.1% of deviation in commercial banks' financial performance by the independent variables.

Results of ANOVA

F- critical value is a point in the test distribution with which the obtained F-statistic from the test is being compared. The regression analysis yields an F-statistic where if the calculated F-value is greater than the critical or tabled F-value, the model is said to be statistically significant.

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	10.253	3	3.418	16.139	.000 ^b
Residual	5.506	26	.212		
Total	15.758	29			

a. Dependent Variable: ROA

b. Predictors: (Constant), INTR, NPLR, LDR

Source: Research findings SPSS output, 2021

F critical value is calculated and the value for F-critical is 2.55. F value is 16.139 which is greater than the F critical value (2.98) where the degrees of freedom of regression and residuals are 3 and 26 respectively. The significance value is 0.000 which is very much lower than 0.05 showing that the model is statistically significant in predicting the effect of independent variables on financial performance. Hence it is found that the overall model was significant and best fit.

Coefficients of Determination

Table 4.9 below shows the result of table of coefficients generated by SPSS. At the confidence interval of 95% , a two tailed T-critical value of ± 2.060 was obtained from the T test tables. Hence the t value lying outside this range is significant. And the significance level is taken as 5%.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	6.993	.711		9.838	.000		
	LDR	-.016	.006	-.365	-2.525	.018	.644	1.553
	NPLR	-.260	.048	-.686	-5.382	.000	.828	1.207
	INTR	.010	.004	.404	2.711	.012	.606	1.651

a. Dependent Variable: ROA

Source: Research findings SPSS output, 2021

Thus, the equation $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$

, becomes:

$$Y = 6.993 - 0.016 \text{ LDR} - 0.260 \text{ NPLR} + 0.010 \text{ INTR} + \varepsilon$$

The constant coefficient hold the value as 6.993. This means that holding all the four independent variables used in the study at zero, the value of financial performance would be 6.993.

DISCUSSION OF FINDINGS

Effect of Liquidity risk on Financial Performance

The coefficient of liquidity risk (measured by LDR) was -0.016 with a p value of 0.006 (ie $p < 0.05$) and t-value of -2.525. Hence inferred a negative and significant effect of liquidity risk on financial performance of commercial banks listed in Rwanda Stock Exchange. From the results it is inferred that an increase in one unit of liquidity risk leads to 0.013 units decrease in ROA. This was in agreement with Yaqoob(2018), Mobarak(2020), Wood and McConney(2018). But contradicts with the findings of Githinji (2013) who inferred a significant but positive effect of liquidity risk on financial performance.

Effect of Credit risk on Financial Performance

The coefficient of credit risk (measured by NPLR) was -0.260 with a p value of 0.000 (ie $p < 0.05$) and t-value of -5.382. Hence, inferred a negative and significant effect of credit risk on financial performance of commercial banks listed in Rwanda Stock Exchange. From the results it is inferred that an increase in one unit of credit risk leads to 0.260 units decrease in ROA. This was in agreement with the findings of Ekinci and Poyraz(2019) but contradicts with the findings of Kioko et al., (2019) inferred a negative but insignificant effect of credit risk on financial performance of commercial banks listed in Nairobi Stock Exchange.

Effect of Interest rate risk on Financial Performance The coefficient of interest rate risk (measured by INTR) was 0.010 with a p value of 0.012 (ie $p < 0.05$) and t-value of 2.711. Hence, inferred a positive and significant effect of credit risk on financial performance of commercial banks listed in Rwanda Stock Exchange. From the results it is inferred that an increase in one unit of credit risk leads to 0.156 units decrease in ROA. This was in agreement with Odeke and Odongo(2014). But contradicts with the study findings of Githinji(2013) who inferred insignificant impact of interest rate risk on financial performance.

CONCLUSION

From table 4.9 of coefficients, credit risk amongst the sub variables was highly influenced by financial performance which reported a t-value of -5.382 hence the most significant. This was followed by interest rate risk and liquidity risk with t values of 2.711 and -2.525 respectively.

CONTRIBUTION

The study being the first one in Rwanda depicted how these risks is affecting the financial performance of commercial banks listed in Rwanda Stock Exchange. The study used both E-views and SPSS software for analysis. The study also shed some light on fluctuations in financial performance which is being caused by the financial risks. These evidences will assist the commercial banks listed in Rwanda Stock Exchange to deal with the risk events before they gradually become stable and snowball into a irreversible issue.

RECOMMENDATION

From the findings it can be recommended that commercial banks should continuously formulate measures that enable them to give special attention to credit risk management, without denying the intermediation among deposits and loans since any neglect in these will in turn affect the financial performance of commercial banks.

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