Risk Management and Financial Performance of Financial Institutions in Rwanda; A Case Study of Urwego Bank PLC

Alice Gasatura[1], Dr. Patrick Mulyungi[2]

[1, 2]Jomo Kenyatta University of Agriculture and Technology

Abstract: ***The general objective of this study was to assess the effect of risk management on financial performance of financial institutions in Rwanda. Its specific objectives were to determine the effect of risk identification on the performance of Urwego Bank Plc, to identify the effect of risk analysis and assessment on the performance of Urwego Bank Plc and to analyze the effect of risk monitoring and control on the performance of Urwego Bank Plc. In this study, a descriptive survey has been carried out. The target population in this study equaled to 30 staff of Urwego bank who are concerned with risk management and the researcher will focus staff involved in executive level, senior leaders, risk management and compliance department and internal audit department. The total population was considered as sample. The questionnaires were administered by multiple approaches that include drop and pick later basis and use of emails to contact the respondents. The collected data were firstly captured in Microsoft Excel, checked for completion and coded. The data for this study were analyzed quantitatively using percentages, frequencies and linear regressions. Descriptive and inferential statistics were used to find out the effect of risk management on financial performance of financial institutions in Rwanda, considering Urwego Bank Plc as the case study. Statistical Package for Social Scientists was used to execute multiple linear regressions. The results are presented using tables for ease of understanding. The researcher concluded that adequate risk identification measures in Urwego Plc would lead to its positive financial performance. This has been concluded from the correlation analysis of the variables in the study. The beta coefficients realized in the regression equation were all positive which is a clear indication that an increase in risk identification practices including identification of credit risks, market risks, operational risks and reputational risks would lead to positive results in growth of sales volumes, growth in market share and return on equity. The researcher further concluded risk analysis and assessment have positive effect on financial performance of Urwego Bank Plc. Therefore the amount of money invested in risk analysis and assessment would increase the financial performance of Urwego Bank Plc. Hence banks have to increase their efforts in risk analysis and assessment by prioritizing risks, using historical & forecasted information for risk assessment and performing qualitative risk analysis. Finally, the study established a positive and high effect of risk monitoring and control and financial performance of Urwego Bank Plc. Therefore the researcher concluded that the study variables are highly correlated. The researcher recommended that managers of banks especially the ones dedicated for risk management should put many efforts in risk identification, risk analysis and assessment and risk monitoring so that they are aware of the risks that may hinder the financial performance of the banks under their management.***

Keywords: Risk Management, Financial Performance, Financial Institutions

1. Introduction

Worldwide risk management is the logical development and implementation of a plan to deal with potential losses. It is important for an organization to put in place risk management programs so as to manage its exposure to risks as well as protect its assets. The essence is to prepare ahead of time on how to control and finance losses before they occur. It is a strategy of pre-loss planning for pre-loss resources. Risk Management is the process of identification, measuring, controlling and monitoring of potential risks that may negatively affect the returns of an organization. Risk Management Practices are vital for an organization's strategic management (Kimeru, 2018). A firm's strategic management uses it in order to make positive contribution to the goals, objectives and the portfolio of almost all its activities.

2. Statement of the Problem

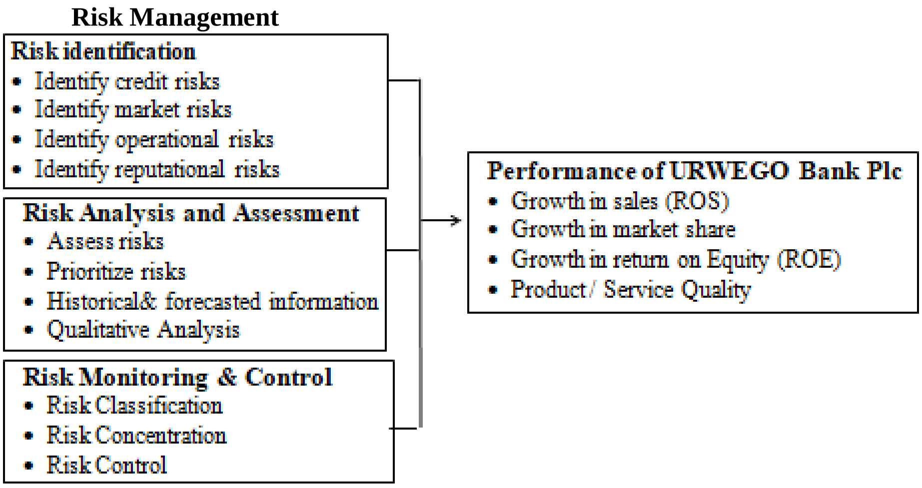
Across the banking industry, the most prominent area that erodes the mass of their profit is risk management (credit, market and operational). The problem of this study is to gather the causes of risk and how this can be anticipated and managed to improve performance of financial institutions. The industry however witnessed worsening asset quality of banks largely because of weak macro-economic factors like depreciating local currency, high inflation rates and interest rates resulting in high default rates. In addition, the supervisory and regulatory bodies did not find any of the banks in Rwanda culpable of flouting prudential arrangements aimed at protecting the interests of clients and shareholders as was experienced in some of African countries like Nigeria. There has, however, not been any major test to ascertain the resilience of the banking industry to withstand major shocks. There is therefore a vacuum between the general belief on the risk position of the Rwandan banking industry and the evidence to back this belief. To do this, it requires thorough assessment of the risk profiles of financial institutions especially banks in Rwanda as well as evaluate the adequacy of the risk management frameworks employed by the banks to handle the various risks they are exposed to. It is against this background that this study sought to assess the effect of risk management on financial performance of financial institutions in Rwanda.

3. Objectives of the Study

The general objective of this study was to assess the effect of risk management on financial performance of financial institutions in Rwanda. Its specific objectives were:

a) To determine the effect of risk identification on the performance of Urwego Bank
b) To identify the effect of risk analysis and assessment on performance of Urwego Bank
c) To analyze the effect of risk monitoring and control on performance of Urwego Bank

4. Conceptual Framework



5. Research Methodology

- **Research Design**: A descriptive survey was carried out in this study
- **Target Population:** The target population for this study equaled to 30 staff working under the above mentioned departments.
- **Sample Size**: The sample size of the study composed of all 30 staff involved in executive level, senior leaders, risk management and compliance department and internal audit department.
- **Data collection instruments:**The survey questionnaires were used as the main data collection instruments and the secondary data were collected from previous annual audited financial statements relevant to this study.
- **Data processing and analysis**: The collected data were firstly captured in Microsoft Excel, checked for completion and coded. The data for this study were analyzed quantitatively using percentages, frequencies and linear regressions. Descriptive and inferential statistics were used to find out the effect of risk management on financial performance of financial institutions in Rwanda.

6. Summary of Research Findings

6.1 Determination of the effect of risk identification on performance of Urwego Bank Plc

Table1: Descriptive statistics on risk identification and performance of Urwego Bank Plc

Indicators	N	Mean	Std. Deviation
Credit risks	30	4.10	1.155
Market risks	30	3.70	1.264
Operational performance	30	4.07	.691
Reputational risks	30	4.23	1.006
Valid N (listwise)	30		

Source: Field Data (2019)

The results in above Table 1 illustrate that the mean values for the first, second, third and fourth statements are respectively rounded off to 4 (the code for disagree) on risk identification. The standard deviation of all statements is above 0.5 meaning that respondents' answers on these statements were far different from the mean, in other words, their answers to the statement were heterogamous.

Table 2: Correlation between risk identification and financial performance of Urwego Bank Plc

Variables		Risk Identification	Financial Performance
Risk Identification	Pearson Correlation	1	.846**
	Sig. (2-tailed)		.000
	N	30	30
Financial Performance	Pearson Correlation	.846**	1
	Sig. (2-tailed)	.000	
	N	30	30

Source: Field Data (2019)

The results from Table 2 show that the correlation between risk identification and financial performance of Urwego Bank Plcis at 0. 846 which meaning that risk identification affects performance of Urwego Public Limited Company at the level of 84.6% which proved a significant relationship between these variables. Therefore if the researcher considers the level of significance which is 0.01, hence there is a significant relationship between risk identification and financial performance because the p-value (0.000) is statistically significant at 1% level of significance.

6.2: Identification of the effect of risk analysis and assessment on financial performance of Urwego Public Limited Company

Table 3: Descriptive statistics on risk analysis and assessment on performance of Urwego Bank Plc

Indicators	N	Mean	Std. Deviation
Possible risks	30	2.43	1.194
Potential risks	30	2.97	1.903
Historical and forecasted information	30	1.60	.498
Quantitative risk analysis	30	2.70	.877
Valid N (listwise)	30		

Source: Field Data (2019)

The results from Table 3 demonstrate that the mean values of2.43 and 1.60 are respectively rounded off to 2 (the code for agree) of possible risks and historical and forecasting on risk analysis and assessment and is followed by the mean values for 2.97 and 2.70 which are round off to 3 (the code for undecided). The standard deviation of all statements is greater than 0.5 meaning that respondents' answers on these statements were far different from the mean and their answers were heterogamous.

Table 4: Correlation between risk analysis, assessment and financial performance of Urwego Bank Plc

Variables		Risk Analysis & Assessment	Financial Performance
Risk Analysis & Assessment	Pearson Correlation	1	.868**
	Sig. (2-tailed)		.000
	N	30	30
Financial Performance	Pearson Correlation	.868**	1
	Sig. (2-tailed)	.000	
	N	30	30

Source: Field Data (2019)

The analysis of correlation in Table 4 revealed that the correlation between risk analysis, assessment and financial performance of Urwego Bank Public Limited Company was at 0. 868 meaning that risk identification influences financial performance of Urwego Bank Public Limited Company at the level of 86.8%, which proves a significant relationship between the two variables. If the researcher considers the level of significance which is 0.01, there is therefore a significant relationship between risk analysis, assessment and financial performance of Urwego Bank Plc because their p-value (0.000) is statistically significant at 1% level of significance.

6.3 Effect of risk monitoring and control on financial performance of Urwego Bank Plc

Table 5: Descriptive Statistics Effect of risk monitoring and control on performance of Urwego Bank

Indicators	N	Mean	Std. Deviation
Classifying possible risks	30	1.53	.730
Concentrating on possible risks	30	2.07	.980
Regularly controlling and evaluate	30	3.00	1.365
Valid N (listwise)	30		

Source: Field Data (2019)

The results in Table5 show that the mean values for the first, second and third statements are 1.53; 2.07 and 3.00 which are respectively rounded off to 2 and 3 (the code for agree and undecided) for risk monitoring and control. The standard deviation of all statements is above 0.5 meaning that respondents' answers on the above three statements were far different from the mean, in other words, their answers to the statement were heterogamous.

Table 6: Correlation between risk monitoring, control and financial performance of UB

Variables		Credit monitoring and Control	Financial Performance
Credit monitoring and control	Pearson Correlation	1	.703**
	Sig. (2-tailed)		.000
	N	30	30
Financial Performance	Pearson Correlation	.703**	1
	Sig. (2-tailed)	.000	
	N	30	30

Source: Field Data (2019)

The findings in Table 6 revealed that the results of correlation between risk monitoring, assessment and financial performance of Urwego Bank Plcis at 0. 703 mean that risk monitoring and assessment affect the financial performance of Urwego Bank Plc70.3% which proves a significant relationship between risk monitoring and assessment and financial performance. If the researcher considers the level of significance, which is 0.01, there is therefore a significant relationship between them because their p-value (0.000) is statistically significant at 1% level of significance.

6.4 Estimated parameters for RI, RAA and CMC with the Financial Performance

Table 7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.908[a]	.825	.804	.589
a. Predictors: Risk Identification, Risk Analysis and Assessment and Credit Monitoring and Control				

The findings from Table 7 revealed that An$R^2 = 0.825$, indicate that 82.5% of variation in risk identification, risk analysis and assessment and credit monitoring and control can be explained by the financial performance leaving only 17.5% of the variation in the dependent variable being explained by the error-term or other variables other than financial performance.

Table 8: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	42.359	3	14.120	40.758	.000[b]
	Residual	9.007	26	.346		
	Total	51.367	29			
a. Dependent Variable: Financial Performance						
b. Predictors: (Constant), Risk Identification, Risk Analysis and Assessment and Credit Monitoring and Control						

The findings in Table 8 show that predictors: risk identification, risk analysis and assessment and credit monitoring and control have an effect on dependent variable which is financial performance of Urwego Bank Plc. This is statistically significant with a p-value (.000).

Table 9: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.557	.512		1.088	.287
	RI	.499	.154	.433	3.233	.003
	RAA	.338	.129	.483	2.621	.014
	CMC	.054	.138	.055	.390	.699
a. Dependent Variable: Financial Performance						

Source: Field Data (2019)

The results in Table 9 indicate that Risk Identification, Risk analysis and assessment and Credit Monitoring and Control have statistically significant effect on Financial Performance of Urwego Bank Plc with a positive coefficient of determination of 0.908 which indicates that there is a strong positive correlation between predictors values and dependent variable. The coefficients of independent variables (RI, RAA and CMC) β_1, β_2 *and* $\beta_3$are respectively 0.499; 0.338 and 0.054 with a statistically significant $(p = 0.00)$. Therefore, the model equation derived is: $y = 0.557 + 0.499x_1 + 0.338x_2 + 0.054x_3 +$ e. The positive coefficient further demonstrates that a 1% increase in the Risk Identification attributed to 0.499% improvement in financial performance, the t-statistic value (3.233) indicates that the effect is statistically significant at 99% confidence level. An increase of 1% on Risk analysis and Assessment will increase financial performance given by 0.338 % at the t-statistic value (2.621) indicates the effect is statistically significant at 99% confidence level while a positive coefficient demonstrates that a 1% increase in Credit Monitoring and Control causes an increase of 0.054 on financial performance with t-statistic value (0.390) indicates the confidence level of 99% the effect is statistically significant.

7. Conclusions and Recommendations

7.1 Conclusions

Through the research study, it is evident that adequate risk identification measures in Urwego Bank Plc would lead to positive financial performance. This has been concluded from the correlation analysis of the variables in the study. The beta coefficients realized in the regression equation were all positive which is a clear indication that an increase in risk identification practices including identification of credit risks, market risks, operational risks and reputational risks would lead to positive results in growth of sales volumes, growth in market share and return on equity.

The researcher further concluded that risk analysis and assessment have positive effect on financial performance of Urwego Bank Plc. Therefore, the amount of money invested in risk analysis and assessment would increase the financial performance of Urwego Bank Plc. Thus, banks have to increase their efforts in analyzing and assessing risks by using historical data, current and future information to perform both qualitative and quantitative risk assessment.

Lastly, the study has confirmed that establishing strong controls and close ongoing risk monitoring would have high and positive impact on the financial performance of Urwego Bank Plc because the study variables are highly correlated.

7.2 Recommendations

Based on the research findings and specific objectives of the study, it is recommended that financial institutions of Rwanda should develop and establish adequate risk managementtechniques that would enable them to efficiently and effectively manage risks that may affect their financial performance, furthermore, banking industry should deploy strong controls to mitigate their financial and asset risks to achieve high returns and become operational and financial sustainable and gain market niche in the sector.Every financial institutions should have a comprehensive enterprise risk management framework that will facilitate it to carry out comprehensive risk assessment and identify emerging risks that would affect its current and future business operations. Finally, financial institutions should establish a risk management function and sufficient resources in order to accommodate risk management evolutions. This will enable the management team to manage credit, operational, and market risk within their risk appetite statements and consequently improve financial performance.

References

[1] Al-Tamimi. (2012). *Risk management practices: an empirical analysis of the UAE commercial banks.* India.
[2] Atkins, D., Drennan L. & Bates, I. (2016). *Reputational Risk: A Question of Trust.*
[3] Basel Committee on Banking Supervision . (2018). *Principles for Sound Liquidity Risk Management and Supervision.* Basel: Bank for International Settlements.
[4] Basel Committee on Banking Supervision . (2009). *Principles for Sound Liquidity Risk Management and Supervision.* Basel: Bank for International Settlements.
[5] Basel Committee on Banking Supervision. (2013). *k integration and aggregation.* Basel: Trends in ris, Bank for International Settlements .
[6] Basel Committee on Banking Supervision. (2016). *Corporate Governance for Banking Organizations (Enhancing Corporate Governance for Banking Organizations.* Basel: Bank for International Settlements.
[7] Basel Committee on Banking Supervision. (2011). *Principles for the Management and Supervision of Interest Rate Risk.* Basel: Bank for International Settlements,.
[8] Bessis, J. (2010). *Risk Management in Banking Sector.* Wiley, Third edition.
[9] Bratanovic, S. (2011). *Analyzing Banking Risk: A Framework for Assessing Corporate Governance and Risk Management.* World Bank Publications.
[10] Committee of Sponsoring Organizations of the Treadway Commission. (2014). *Enterprise Risk Management – Integrated Framework, Executive Summary.*
[11] Froot, K. A., Scharfstein, D. S., & Stein, J. C. (2014). *A Framework for Risk Management.* Harvard Business Review.
[12] Gates. (2016). Incorporating Strategic Risk into Enterprise Risk Management: A Survey of Current

Corporate Practice. *Journal of Applied Corporate Finance* , Vol. 18, No. 4, pp. 81-90.
[13] IMF. (2018). *Global Financial Stability Report: Containing Systemic Risks and Restoring Financial Soundness*, . Washington, DC: IMF Multimedia Services Division .
[14] ISO. (2012). *Risk Management – Vocabulary.*
[15] Kimeu. (2018). *Credit risk management techniques of unsecured banks loans of commercial banks in Kenya.* Nairobi: Unpublished MBA thesis , University of Nairobi.
[16] Korir, Mark .K ,. (2012). *Effects of credit risk management practices on financial Performance of deposit taking microfinance institutions in Kenya.* Nairobi: Unpublished MBA Project , University of Nairobi .
[17] KPMG. (2014). *Never Again? Risk Management in Banking Beyond the Credit Crisis.* Berne: KPMG International.
[18] Moore. (2013). Development in Islamic banking: a financial risk-allocation approach. *The Journal of Risk Finance*, 9 (1), 40-51.
[19] Mugenda, M. O. and Mugenda , A. (2011). *Research Methods: Qualitative and Quantitative Approaches.* Nairobi: Acts Press.
[20] Oldfield, G. & Santomero A. M. (2015). *The Place of Risk Management in Financial Institutions, Wharton Financial Institutions Center.* Pennsylvania: University of Pennsylvania, Working Paper 95-05-B.
[21] Riley. (2012). Application of multiple discriminant analysis (MDA) as a credit scoring and risk assessment model. *International Journal of Emerging Markets*, 6 (2),132-47.
[22] Sabato, Gabriele (. (2013). *Financial Crisis: Where did Risk Management Fail? Royal.* Scotland: Bank of Scotland, Group Credit Risk.
[23] Santomero. (2017). Commercial Bank Risk Management: An Analysis of the Process. *Journal of Financial Services Research.*
[24] Santomero, A. M. & Trester, J. (2017). *Structuring Deposit Insurance for a United Europe," European Financial Management.* Blackwell Publishing Ltd.
[25] Searle. (2018). *Risk Analysis for Islamic Banks.* Washington, DC: The World Bank.
[26] Siddique. (2014). Job Analysis: A Strategic Human Resource Management Practice. *International Journal of Human Resource Management*, 219-244.
[27] Smith, C., Smithson C. & Wilford, D. (2010). *Strategic Risk Management (Institutional Investor Series in Finance).* New York: Harper and Row.
[28] Steinberg, R.M., Everson, M.E.A., Martens, F.J., Nottingham, L.E. (2014). *Enterprise Risk Management Integrated Framework, September, available at: www.coso.org/documents/COSO_ERM_ExecutiveSummary.pdf (accessed 14 June 2014).*
[29] Stulz. (2014). Optimal Hedging Policies. *The Journal of Financial and Quantitative Analysis*, Vol. 19, No. 2. pp. 127-140.
[30] Toben. (2015). *Effective risk management outcomes: exploring effects of innovation.*
[31] Tseng. (2017). *Operational Risk Events in Banks and Practices for Collecting Internal Loss Data A Research Report Presented to the Graduate School of Business Leadership.* University of South Africa.
[32] Wenk. (2010). Risk exposure during the global financial crisis: the case of Islamic banks. *International Journal of Islamic and Middle Eastern Finance and Management*, 3 (4), 321-33.