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Effect of Financial Risk Management Practices on Profitability of Listed Companies in Rwanda: A case of CIMERWA PLC (2020-2022)

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Abstract

The main objective of the study was to analyze the effect of financial risk management practices on profitability of listed companies in Rwanda with a reference to Cimerwa Plc. The study is based on the following specific objectives to examine the effect of liquidity risk management practices on profitability at Cimerwa Plc; to explore the effect of foreign exchange risk management practices on profitability at Cimerwa Plc and to determine the effect of market risk management practices on profitability at Cimerwa Plc. To achieve these objectives; the study adopted a correlational research design whereby the total population was 224 employees in marketing, production and operations, legal, sales and finance departments. The sample size was 144 respondents selected by stratified sampling technique. Data were collected from both primary and secondary data using a structured questionnaire and documentary reviews. Data were analyzed by descriptive and inferential statistics, presented using frequency tables and percentages, mean and standard deviations as well as regression analyses. The findings confirmed that Cimerwa Plc effectively assesses its liquidity risk exposure ($\mu=4.0909$; $STD=0.53936$); the liquidity risk management practices at Cimerwa Plc positively influence its profitability ($\mu=4.1818$; $STD=0.601442$). The foreign exchange risk management tools used by Cimerwa Plc are appropriate in mitigating currency fluctuations ($\mu=4.4545$; $STD=0.68755$); the Cimerwa Plc's foreign exchange risk management practices contribute positively to its profitability ($\mu=4.6364$; $STD=0.50452$); Cimerwa Plc actively hedges against foreign exchange risks to protect its profitability ($\mu=4.0000$; $STD=1.0000$). Cimerwa Plc effectively assesses market risks associated with its operations and investments ($\mu=4.4545$; $STD=0.68755$); Cimerwa Plc uses financial instruments to hedge against market risks effectively ($\mu=4.2727$; $STD=0.78625$); Cimerwa Plc actively monitors and manages its exposure to market volatility ($\mu=4.7273$; $STD=0.46710$). The Cimerwa Plc effectively communicates its market risk management strategies to relevant stakeholders ($\mu=4.4545$; $STD=0.68755$) and the market risk management practices at Cimerwa Plc adapt well to changing market dynamics ($\mu=4.6364$; $STD=0.50452$). Regarding the profitability, there were improvement in profitability indicators as the Return on Asset (ROA) changed from

1.7% in 2020 to 3.8% and 11.4% in 2021 and 2022. The Return on Equity (ROE) improved from 3.4% in 2020 to 6.7% and 17.6% in 2021 and 2022 while Net Profit Margin changed from 100% in 2020 due to previous credit taxes to 76% and 78% in 2021 and 2022 respectively and the Earning per Share (EPS) improved from 2.78 in 2020 to 5.86 and 18.74 in 2021 and 2022. These results imply that the profitability indicators in Cimerwa Plc have depicted improving trends in last three years under consideration. Besides, the value of adjusted R squared was 0.608, an indication that there was variation of 60.8% on profitability of Cimerwa Plc due to changes in liquidity risk management practices, foreign exchange risk management practices and market risk management practices at 95% confidence interval. We also recommended that CIMERWA Plc's liquidity risk management practices should be well aligned with industry best practices and the liquidity risk management practices at CIMERWA Plc should be well transparent and well-communicated across the organization.

1. Introduction

Rwanda's economy has experienced significant growth and development, attracting local and international investors. Understanding the impact of financial risk management on profitability within the Rwandan context can provide valuable insights into the country's business environment and contribute to the formulation of effective risk management strategies for other listed companies. Financial risk management is a critical aspect of ensuring the long-term sustainability and profitability of listed companies. In Rwanda, where economic growth and the capital market have been rapidly evolving, it becomes imperative to understand the role of financial risk management on the profitability of listed companies.

The issue of impact of financial risk management on financial performance has seen an extensive amount of empirical investigation in the recent years. Nonetheless, according to Mutukua (2016), companies listed on the stock market function within an unpredictable and vulnerable context, facing a range of risks that could potentially undermine their core objectives. Numerous empirical investigations have scrutinized the impact of financial risks on the financial performance of commercial banks.

Notably, most studies of the impact of financial risk management on performance have focused on the banking sector using bank-specific variables as market risk indicators (Ngalawa & Ngare 2013). As an example, Nimalathan and Puwanenthiren (2019) employed a metric to gauge the extent of financial leverage in order to assess the influence of market risk on the equity return of financial institutions listed in Sri Lanka between 2007 and 2011.

The problem statement aims to examine how CIMERWA Plc has implemented financial risk management practices and the extent to which they have influenced its profitability. Therefore, this study aims to investigate the specific case of CIMERWA Plc, a leading company in the Rwandan cement industry, and assess the impact of financial risk management practices on its profitability during the period of 2020-2022.

CIMERWA Plc, a leading cement manufacturing company in Rwanda, has been chosen as the specific case study for this research analyzing the financial risk management practices and their influence on a non banking company's profitability will provide an in-depth understanding of the dynamics between risk management and financial performance in the Rwandan market. The study aims to fill the existing gap in the literature regarding the role of financial risk management practices on the profitability of listed companies in Rwanda, using CIMERWA Plc as a case study. The findings can offer valuable insights for both the

company and the broader business community, enabling them to enhance their financial risk management practices and ultimately improve their profitability and long-term sustainability.

1.2 Objectives of the Study

This research has one general and three specific objectives.

General Objective

The primary aim of this study was to investigate how the implementation of financial risk management techniques impacts the profitability of companies listed in Rwanda, focusing specifically on CIMERWA Plc

The study is based on the following specific objectives:

- i. To examine the effect of liquidity risk management practices on profitability of CIMERWA Plc.
- ii. To explore the effect of foreign exchange risk management practices on profitability of CIMERWA Plc.
- iii. To determine the effect of market risk management practices on profitability of CIMERWA Plc.

1.3 Research Hypotheses

Three research hypotheses will guide this study:

H01: There is no significant effect of liquidity risk management practices on profitability of CIMERWA Plc

H02: There is no significant effect of foreign exchange risk management practices on profitability of CIMERWA Plc

H03: There is no significant effect of market risk management practices on profitability at CIMERWA Plc

2. Literature review

2.1 Theoretical framework

Financial risk encompasses various forms of risk linked to financing, which involve financial transactions like company loans at risk of default (Al Rahahleh *et al.*, 2019). It's often misinterpreted to solely refer to downside risk, denoting the potential for financial loss and the uncertainty about its extent. Financial risk pertains to the potential of experiencing monetary losses in investments or business undertakings. Certain well-known and distinct types of financial risks encompass credit risk, liquidity risk, and operational risk. This research is guided by a pivotal financial distress theory.

2.1.1 Theory of Financial Distress

When a company's business declines to the point where it can no longer satisfy its financial obligations, it is said to be in financial difficulty (Felix, 2017). Violations of debt payments and the failure or reduction of dividend payouts are the first signs of financial hardship. Whitaker (2019) defines financial distress as the first year in which cashflows are less than the long-term debt of current maturities. As long as the cashflows surpass the present debt commitments, the company will be able to pay its creditors. The key factor in identifying firms in financial distress is their inability to meet contractual debt obligations.

Market-Based models of this theory examining the role of market signals and investor behavior in predicting financial distress. They explore how factors such as stock price

volatility, credit spreads, and bond ratings can provide indications of a company's financial health and potential distress. The theory of financial distress focuses on understanding the causes, symptoms, and outcomes of financial distress, which can ultimately result in bankruptcy or insolvency.

This theory of deterioration, initially proposed by Muriithi, Waweru & Muturi (2016), posits that shares of companies facing distress exhibit significantly poorer performance compared to stocks of financially stable companies. The theory of financial distress, often referred to as the "wreckers' theory," aims to elucidate the potential advantages that stakeholders might obtain from navigating through financial distress (Sporta, 2018). This theory aligns with an interpretation of the stock market as efficient, typically associating research on personal gains with the literature concerning empirical asset pricing. It suggests that the structure of finances and the likelihood of default could play a crucial role in influencing the magnitude of control-related personal benefits (Munguti, 2019). This theory of financial distress supports the present study in exploring the financial risks associated with Rwandan manufacturing companies listed to Rwanda Stock Exchange market and how the management of these risk impacts the profitability of these companies.

2.2 Empirical Review

Empirical literature shows that there is congruence among conclusions reached by scholars on the relationship that exist between value of the firm and risk management.

2.2.1 Foreign Exchange Risk and profitability of listed companies

Odubuasi (2016) investigated the effect of exchange rate fluctuation on the manufacturing company's performance in Ethiopia covering 2005 to 2014. He set out four hypotheses to help achieve the objective of the study. Ex post facto research design was employed and secondary data was gathered from the firms' annual report and CBN statistical bulletin, wherein multiple regression analytical technique was employed. The findings indicate that exchange rate has no significant effect on all the dependent variables but the effect is positive on Net profit margin, return on assets and return on equity but is negative on earnings per share.

Agubata and Odubuasi (2018) investigated the effect of exchange rate fluctuation on the financial performance of manufacturing firms in Nigeria, sampling the eight firms within the food, beverage and tobacco sector of the economy. Ex post facto research design was employed and time series data of the samples were collected from central Bank of Nigeria Statistical Bulletin and the financial statements of the firms which spanned from 2005 to 2014. Ordinary Least Square (OLS) multiple regression estimator was used and the results indicate that exchange rate and inflation rate have positive effect on the financial performance of the sector where as interest rate has negative effect on the food, beverage and tobacco sector.

2.2.2 Market Risk and Financial Performance

Alao and Oloni (2015) investigated the effect of commodity price changes on firms' value of Drink service industry on the stock exchange market in Nigeria. Using descriptive survey design, they collected secondary data from 11 firms on food and drink sector from 2009 to 2013. The factor being studied, Commodity prices, was denoted by revenue, cost of sales, and stock price, while the factor being measured, firm value, was indicated by earnings per share, earnings before interest and tax, and assets turnover. Through the utilization of correlation and regression analyses on the collected data, the researchers discovered a notable and positive connection between the indicators of commodity prices and firm value, represented by revenue, cost of sales, and stock prices.

Norhafiza, Sabariah and Rusmawati (2014) in a bid to determine the impact of commodity prices, interest rate and exchange rate on the stock market performance of Malaysian economy, gathered monthly data from December 1997 to September 2012 and represented one the independent variables (commodity price) with price of palm oil, price of crude oil and price of gold. They employed cointegration bound test regression approach for the model estimation after they applied Augmented Dickey Fuller (ADF) for test of unit root. Their results shown on the long run that there were significant negative relationships between the stock market index and interest rate, as well as the exchange rate at 1% and 5% significant level. Also oil price had a significant positive influence on the stock market index. On the short run, the results indicate that a significant negative relationship between the interest rate, exchange rate and stock market index at 1% significant.

2.2.3 Liquidity Risk and Financial Performance

Mansyur (2017) analysed the effect of financial risk on the financial performance of banks in Indonesia. This analysis uses panel data from the annual report of 23 banks listed on the Indonesian Stock Exchange for the period 2011-2015. Data analysis was conducted using the Smart Pls 3.0 route analysis. Financial success is the endogenous component. Exogenous variables include financial risk, consisting of liquidity risk and credit risk, exchange rate risk and interest rate. The results of the study indicate that credit risk has a negative and significant effect on financial performance. The risk of interest rates has a strong and important effect on financial results. Liquidity risk and exchange rate risk have been insignificant and do not impact the financial performance of banks.

The examination of the impact of risk management on the financial performance of Rwandan institutions was undertaken by Harelimana (2017) during the period spanning from 2012 to 2016. Data collection involved a questionnaire administered to 30 staff members of Unguka Bank Ltd, employing a combination of quantitative and qualitative methods. The results underscore a discernible correlation between risk management and financial performance. It was determined that the four independent variables moderately forecast the performance of Unguka Bank Ltd.

2.2.4. The impact of financial risk management on profitability of listed companies

Comparisons of crucial profitability metrics, such as returns on investment and equity returns to the standards (Sun & Chang, 2018), are the main ways of profitability assessment. Regardless of the terms accepted, bank capital is also widely used for assessing its financial strength. Solvency of financial institutions is increasingly at risk as their assets become deteriorated. This leads to the over-exposure to specific risk patterns in non-performing loans. Security and viability of bank lenders are also essential part of quality metrics monitoring. In addition to all of the above, financial risk and financial performance, that are linked to loan portfolio which might become default on the creditor side, can lead to cash flow problems, thus ultimately affecting the liquidity position of a bank.

Shijaku (2017) showcased another dimension of the connection between financial risk and financial performance by investigating the link between these factors in Islamic banking establishments within Gulf Cooperation Council nations. The author gathered data from the period of 2000 to 2012, focusing on 11 out of the 47 Islamic banks located in the GCC region. To gauge bank performance, the primary measures employed were Return on Assets (ROA) and Return on Equity (ROE). In addition, the analysis took into consideration several risks, including credit risk, liquidity risk, and operational risk.

The regression analysis revealed there is a significant negative relationship between Islamic banks ' efficiency, equity and operating risk. The results have once again confirmed the presence of a noteworthy adverse correlation between the economic prosperity of the Gulf Cooperation Council on the whole and Islamic banks. The study identified capital risk and operational risk as the most prominent categories of risk in this investigation. In his study, Papaioannou (2015) reached the conclusion that it is imperative to assess and control exposure to uncertainties and risks. By doing so, firms can reduce their vulnerability to the impact of fluctuations in interest rates and exchange rates, which possess the potential to influence the valuation and revenues of organizations.

2.3 Conceptual framework of the study

The conceptual framework shows the relationship between the two variables such as independent variables and dependent variables.

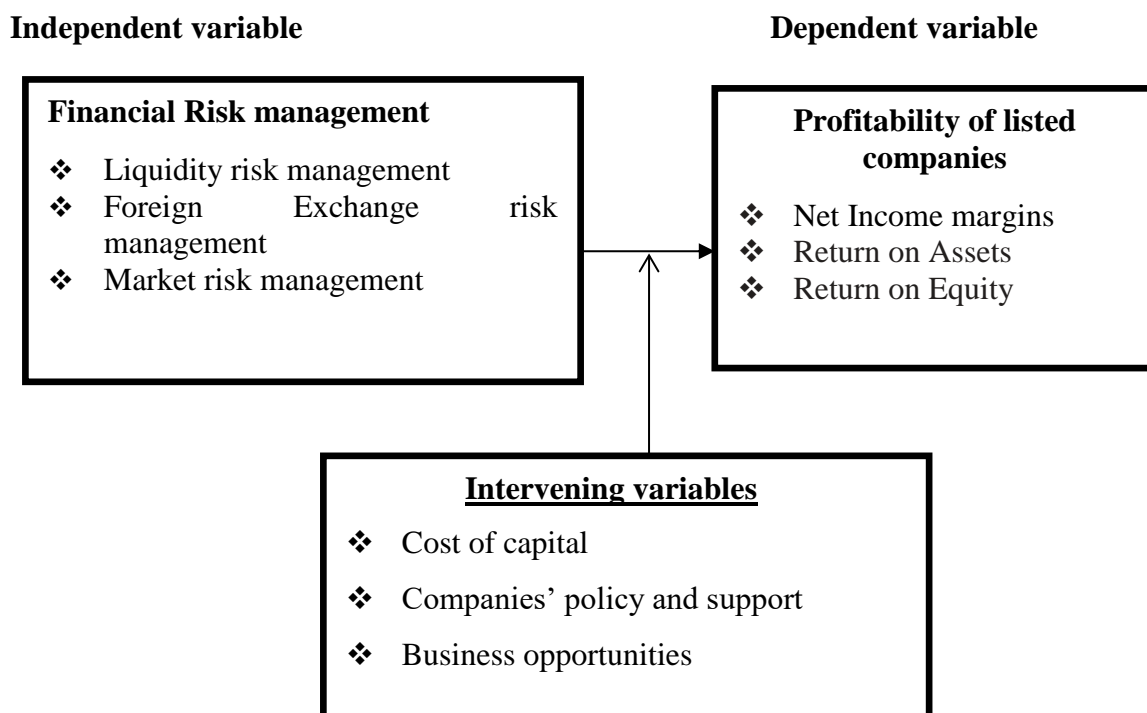


Figure 1: Conceptual framework of the study

Source: Researcher, 2023

The above concept implies that financial risk management practices such as liquidity risk management, foreign exchange risk management and market risk management improves the profitability of listed companies' especially net interest margin, return on assets and return on equity.

3. Research methodology

3.1 Research design

The correlational research design was employed in this research. Correlational research design is a type of research method that involves observing two variables to establish a statistically corresponding relationship between them. Correlation helped make predictions based on historical relationships and in determining the validity and reliability of a study. This research design was the best in explaining if two variables are related or if they vary.

This was established by use of enough information and data for testing cause and effect relationship.

3.2 Study population and sampling

Lockyer and Shoron (2014), refer to population as the number of persons or objects covered by the study or with which the study is concerned. A study population is a well-defined or specified set of people, group of things, households, firms, services, elements, or events which are being investigated. The population should fit a certain specification, which is studied. The employees in marketing, production and operations, legal, sales and finance departments were considered because of the nature of our study it would be impractical to consider all the staff under population frame like manpower, support staff, among others as the information required would be specifically related to financial risk management practices and profitability and some layers of the company are not involved to have such information. Therefore, a target population of 224 personnel was one that wants to generalize the result of the study from the total population of 317 staff (Cimerwa, 2022).

The sample size is calculated as follows:

$$n=N/[1+N(e)^2]$$

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

$$N=224/1+224(0.05)^2=144 \text{ respondents.}$$

Table 1: Sample size determination by departments

Department	Number of staff	Sample size selected	Sampling technique used in department
Marketing officers	38	$Nh=38*144/224=24$	Stratified sampling
Finance and accounting officers	14	$Nh=14*144/224=9$	Stratified sampling
Operations and production officers	98	$Nh=98*144/224=63$	Stratified sampling
Legal and compliance officers	22	$Nh=22*144/224=14$	Stratified sampling
Sales officers	52	$Nh=52*144/224=33$	Stratified sampling
Total	224	144	

Source: Primary data, 2023

The sampling technique used is called stratified sampling. In stratified random sampling, the one first divides the population into sub population based on supplementary information, after dividing the population into strata; he or she draws a random sample for each sub population.

3.3 Data collection methods and instruments

In this particular study, the tools employed for data collection encompassed the documentary review technique and questionnaires.

3.3.1 Documentary Review

Brian (2011) affirmed that this technique focuses on systematic searching from any written documents which are relevant to the field of the research. Those documents included books, brochures, reports, and archives. This technique enabled us to leaf through different documents and retrieving different web sites. The researcher used various published reports of CIMERWA Plc, magazines, and textbooks to obtain secondary data that were seem relevant to the study.

3.3.2 Questionnaire

According to George (2013), this technique consists of working out a list of questions put targeted to a particular population. The people answer the questions put together in meaningful order within writing information they have. This technique helped us to collect data from the sample by using written questions. The questionnaires were administered to individuals involved. The questionnaire contained close-ended questions only in the form of likert scales (1=Strongly Disagree 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree). The participants had to tick the appropriate box with regard to their understanding.

3.4 Data analysis

Bailey (2013) argued that any attribute that we cannot measure in number we called it qualitative attribute or variable. The collected data were expressed in different tables especially the responses from the representative sample under the study. The regression model allowed for a linear relationship between the forecast variable y and a single predictor variable x . The coefficients β_0 and β_1 denote the intercept and the slope of the line respectively. The intercept β_0 represents the predicted value of y when $x=0$. The slope β_1 represents the average predicted change in y resulting from a one unit increase in x while μ_i is the residual term that is the part of y_i that cannot be explained by x_i .

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

Where: $\beta_1 \beta_2 \beta_3 \geq 0$ and β_0 represents intercept, $\beta_1 \beta_2 \beta_3$ represent the effect of liquidity risk management (X_1), foreign exchange risk management (X_2) and market risk management (X_3) on profitability (Y) measured by return on asset, return on capital employed and net interest margin.

4. Research findings

4.0. Introduction

This chapter shows the findings of this research by presenting it from analysis. Where this is required, interpretations are provided after each table, always taking into consideration the initial research questions. The main objective of the study is to analyze the effect of financial risk management practices on profitability of listed companies in Rwanda with a reference to Cimerwa Plc. The study is based on the following specific objectives to examine the effect of liquidity risk management practices on profitability at Cimerwa Plc; to explore the effect of foreign exchange risk management practices on profitability at Cimerwa Plc and to determine the effect of market risk management practices on profitability at Cimerwa Plc. This chapter thus examines the empirical evidence and establishes the ground up on the research questions that were answered before drawing conclusion. The analysis was made on the responses obtained from 144 respondents from Cimerwa Plc.

4.1 Hypotheses testing

The study was based on the three hypotheses with a null hypothesis (H0) and an alternative hypothesis (H1) for each. To test these hypotheses, we collected financial data for the past three years from CIMERWA Plc, including liquidity risk management, foreign exchange risk management, market risk management metrics and profitability indicators. We employed a correlation analysis, analysis of variance and multiple regression analysis, controlling for other relevant factors, to assess the relationship between financial risk management practices and profitability.

Our analysis indicates that the p-value ($p < 0.05$) is less than the predefined significance level, α . Therefore, we reject the null hypotheses (H0) that there is no significant effect of liquidity risk management practices on profitability at CIMERWA Plc; there is no significant effect of foreign exchange risk management practices on profitability at CIMERWA Plc and there is no significant effect of market risk management practices on profitability at CIMERWA Plc.

Furthermore, we accept the alternative hypotheses (H1), suggesting that there is a significant effect of liquidity risk management practices on profitability at CIMERWA Plc, there is a significant effect of foreign exchange risk management practices on profitability at CIMERWA Plc and there is a significant effect of market risk management practices on profitability at CIMERWA Plc.

Table 2: Pearson correlation analysis

		<i>Liquidity risk management</i>	<i>Foreign Exchange Risk Management</i>	<i>Market Risk Management</i>	<i>Profitability</i>
Liquidity risk management	Pearson correlation	1			
	Sig. (2tailed)				
	N	144			
Foreign Exchange Risk Management	Pearson correlation	0.184	1		
	Sig. (2tailed)	0.115			
	N	144	144		
Market Risk Management	Pearson correlation	0.213	0.118	1	
	Sig. (2tailed)	0.405	0.119		
	N	144	144	144	
Profitability	Pearson correlation	0.526*	0.817*	0.623*	1
	Sig. (2tailed)	0.0332	0.010	0.041	0.00
	N	144	144	144	144

Source: Primary data, 2023

With LRM (Liquidity Risk Management), FERM (Foreign Exchange Risk Management), and MRM (Market Risk Management). The findings in the table 2 indicate the Pearson correlation drawn from SPSS on 144 cases observed as the number of complete observations as pair wise no missing values (n=144). The results show that there is a linear relationship between the two variables (independent and dependent) with correlation of height and weight (r= 0.526; 0.817; 0.623 respectively), its p-value, and the numbers of complete pair wise observations that the calculation was based on. The results show that between financial risk management and profitability of listed companies, there is significance level indicated by (0.526; 0.817; 0.623 respectively) for a two-tailed test), as these values are greater than 0.05.

This implies that there is a significant moderate relationship between liquidity risk management practices and the profitability achieved by Cimerwa Plc (r =0.526, p <0.05) and the correlation results also indicate existence of a significant strong relationship between foreign exchange risk management and the profitability achieved by Cimerwa Plc (r =0.817, p <0.05). Furthermore, it was established that market risk management practices have a significant moderate and strong non- causal relationships with the profitability achieved by Cimerwa Plc (r =0.623, p <0.05).

Furthermore, the combined influence of independent variables on the dependent variable was tested with a multiple regression analysis. Multiple regression analysis was used to determine the causal relationship between the dependent variable and all the independent variables pooled together. This analysis was used to examine how the independent variables influence the dependent variable in such a collectively.

Table 3: Regression coefficient for financial risk management related variables and profitability of Cimerwa Plc

<i>Model</i>	<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	<i>t</i>	<i>Sig.</i>
	B	Std. Error	Beta		
1 (Constant)	3.746	.286		9.097	.000b
liquidity risk management	.903	.036	.290	4.667	.017
foreign exchange risk management	.627	.092	.036	.369	.008
market risk management	.820	.063	.510	5.270	.020

^a **Dependent Variable: Factor 4 (Profitability)**

Source: Primary data, 2023

The table 3 give the individual regression model coefficients on extent to which dependent variable as profitability level of Cimerwa Plc is influenced by the elements of financial risk management namely liquidity risk management practices, foreign exchange risk management practices and market risk management practices.

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

Where Y = dependent variables, profitability β_0 = a constant; $\beta_1, \beta_2, \beta_3, \beta_4$ = coefficients

X_1, X_2, X_3, X_4 = independent variables and ϵ_i = error term

$$Y = 3.746 + 0.903X_1 + 0.627X_2 + 0.820X_3 + \epsilon_i$$

Where: X_1 : Factor 1 (liquidity risk management practices), X_2 : Factor 2 (foreign exchange risk management practices), X_3 : Factor 3 (market risk management practices), and ϵ_i = error term.

Results in Table 3 revealed that there was a positive and significant relationship between liquidity risk management practices and profitability ($\beta = 0.903$, p value < 0.05). This means that a unit of change in liquidity risk management practices increases profitability by 0.903 units while holding constant foreign exchange risk management practices and market risk management practices.

Furthermore, there was a positive and significant effect between foreign exchange risk management practices and profitability ($\beta = 0.627$, p value < 0.05). This means that a unit of change in foreign exchange risk management practices increases profitability by 0.627 units while holding liquidity risk management practices and market risk management practices constant. Additionally, there was a positive and significant relationship between market risk management practices and profitability ($\beta = 0.820$, p value < 0.05). This means that a unit of change in market risk management practices increases profitability by 0.820 units while holding liquidity risk management practices and foreign exchange risk management practices constant.

This clearly shows that there is a positive effect of financial risk management on profitability of Cimerwa Plc. The study further revealed that the P-value were less than 0.05 in all the variables, which shows that all the independent variables were statistically significant and thus in position to make conclusion for the study. From the findings on the coefficient of determination, the study found that there was great variation in the profitability of listed companies in Rwanda could be accounted to changes in liquidity risk management practices, foreign exchange risk management practices and market risk management practices at 95% confidence interval.

5. Conclusion

The researcher has assessed the financial risk management in Cimerwa Plc and its effect on profitability. The components of financial risk management included liquidity risk management, foreign exchange risk management and market risk management and the study had shown that these components were statistically significant and impacted the profitability of Cimerwa Plc. The results show that the overall mean level of agreement and disagreement with the proposed profitability indicators in Cimerwa Plc is high ($\mu = 4.15456$) and the overall standard deviation is (STD=0.790165).

There were improvement in profitability indicators as the Return on Asset (ROA) changed from 1.7% in 2020 to 3.8% and 11.4% in 2021 and 2022. The Return on Equity (ROE) improved from 3.4% in 2020 to 6.7% and 17.6% in 2021 and 2022 while Net Profit Margin changed from 100% in 2020 due to previous credit taxes to 76% and 78% in 2021 and 2022 respectively and the Earning Per Share (EPS) improved from 2.78 in 2020 to 5.86 and 18.74 in 2021 and 2022. These results imply that the profitability indicators in Cimerwa Plc have depicted improving trends in last three years under consideration. Besides, the value of adjusted R squared was 0.608, an indication that there was variation of 60.8% on profitability

of Cimerwa Plc due to changes in liquidity risk management practices, foreign exchange risk management practices and market risk management practices.

6. Recommendations

From the findings, there is need for better improvement in financial risk management towards improved profitability in Rwandan listed companies:

CIMERWA Plc should regularly monitor its liquidity position to make informed financial decisions, CIMERWA Plc should effectively implements strategies to manage cash flow fluctuations and liquidity challenges. CIMERWA Plc's liquidity risk management practices should be well aligned with industry best practices and the liquidity risk management practices at CIMERWA Plc should be well transparent and well-communicated across the organization.

The foreign exchange risk management practices at CIMERWA Plc should be aligned with the company's overall financial objectives and CIMERWA Plc needs to consider both transactional and translational foreign exchange risks in its risk management approach and CIMERWA Plc should always consider both systematic and unsystematic market risks in its risk management approach.

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