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# Effect Of Prudential Ratios On Banks' Performance In Democratic Republic Of Congo (Drc): A Case Study Of Raw Bank 2017-2021

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#### Abstract

The study aimed at analyzing the effect of prudential ratios on banks' financial performance in D.R. Congo by taking a case study of Raw Bank. It used a descriptive research design and used quantitative method in data collection and analysis. The researcher used 86 employees as sample size. Primary data were gathered using questionnaires. Secondary data were collected using documentation review. Data gathered from the field were recorded and coded into (SPSS) software version 16.0 and they were analyzed using frequencies, mean and standard deviations. Multiple regression analysis was used to establish the relationship between the variables under study. The study found out that there is a positive high relationship between capital adequacy requirements, liquidity risk management requirements, credit risk management requirements and financial performance of the bank. The study also found out that the coefficient of determination, adjusted R Square indicates the variation in the dependent variable (Financial performance) due to changes in the independent variable. The value of adjusted R square was 0.826. This indicates that there was a variation of 82.6% in financial performance of Raw Bank due to changes in capital adequacy requirements, liquidity risk management requirements and credit risk management requirements. The study concluded that prudential ratios are important factors that influence the financial performance as they safeguard the financial health, soundness and stability of financial system. The study recommends that the Board of Directors of Raw Bank as well as the overall management of the bank to continue implementing properly the regulations imposed by the Central Bank of DRC.

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#### I. Introduction

Sound, clear and easily monitored prudential regulatory ratios encourages commercial bank managers to run their institutions better and facilitates the work of supervisors to be easy(Osolo, 2022). However, evidence shows that the absence of prudential regulations ratios in some key areas can lead to bank failures and systemic instability. Despite the fact that prudential regulatory ratios have been in place to help the Central Bank regulates commercial banks, the problem of capital and liquidity requirements as well as increase in non-performing loans have continued to be persistent. Compliance to capital and liquidity requirements, Non-performing Loans level set as well as risk management are the major challenges faced by banks in order to perform effectively and become profit-making originations (Musengimana & Mulyungi, 2017).

Inefficient supervisory actions and inadequacy of prudential regulatory framework' is among factors that contribute to banking distress, they make banks to face more high degree risks compared to other businesses. Such risks are capable of adversely affecting their financial performance, however, poor management of capital adequacy, bank deposits, liquidity, bank loans and expenses and unpredictability of macro-economic factors are strongly associated with poor financial performance. Such poor performance, which is always followed by crisis, can make banks to fall into bankruptcy (Twesigye & Mulyungi, 2019).

The absence of adequate prudential regulations ratios leads to the problem capital adequacy, outstanding loans also known as non-performing loans, poor liquidity risk management, poor credit risk management, poor asset quality management, insolvency, operational inefficiency. All these put banks into risks and have an adverse and unfavorable influence on them through weakening their capabilities and financial performance (Osolo, 2022).

Based on the studies, the effect of prudential regulatory ratios on banks' financial performance of the banks remains inconclusive. There is insufficient clarity on the true effect of prudential regulatory ratios on

banks' financial performance. Moreover, some studies were done in developed economies hence their findings may not be applied to the local banks, hence a contextual knowledge gap.

Despite the critical importance of prudential regulatory ratios, there is no tangible evidence that shows improved bank financial performance as influenced by them, the extent to which prudential ratios contribute to financial performance of Trust Merchant Bank is not clear and at the same time, sufficient information on the analysis of prudential ratios in banks' financial performance in D.R. Congo is lacking. There are few studies to the best of the researcher's knowledge undertaken to highlight the effect of prudential ratios in banks' financial performance in D.R. Congo. Hence, this study therefore tries to fill this empirical gap by analyzing prudential ratios in banks' financial performance in D.R. Congo with a special reference to Raw Bank.

#### II. Literature Review

# Nature of prudential ratios

Prudential ratios are important indicators of the financial performance and risk mitigation of commercial banks. Prudential ratios are designed to measure the financial strength and stability of banks. They provide a snapshot of a bank's financial condition at a given point in time and are used by regulators, investors and analysts to assess the bank's financial health. Prudential ratios can help to identify potential risks such as liquidity risk, credit risk or operational risk that could impact the bank's performance (Mwenda, 2018). For example, the Tier 1 capital ratio is one of the most commonly used prudential ratio. This ratio measures a bank's core capital against its risk- weighted asset. A higher Tier 1 ratio indicates that a bank has a stronger financial position and is better to be able to resist unexpected losses. This ratio is used by regulators to ensure that banks have sufficient capital to absorb losses and to mitigate the risk of bank failures (Adeleke & Ibrahim, 2022).

Another important prudential ratio is the loan- to- deposit ratio which measures a banks' loans against its deposits. A high loan- to- deposit ratio can indicate that a bank is taking on too much risk by lending out more than what it can afford to lose. This ratio is used by regulators to ensure that banks are not overexposed to credit risk and maintaining a healthy balance between lending and deposit-taking activities (Adeleke & Ibrahim, 2022).

Overall, prudential ratios play an important role in assessing the financial health and risk mitigation strategies of commercial banks. Regulators, investors and analysts use these ratios to ensure that banks are maintaining a strong financial position and are not exposing themselves to unnecessary risks. By monitoring prudential problem areas and take corrective action to mitigate risks before they become serious (Osolo, 2022).

# Capital adequacy requirements

A capital requirement also known as regulatory capital, capital adequacy or capital base is the amount of capital a bank or other financial institution has to have as required by its financial regulator. This is usually expressed as a capital adequacy ratio of equity as a percentage of risk-weighted assets. These requirements are put into place to ensure that these institutions do not take on excess leverage and risk becoming insolvent (Aruwa & Mohammed, 2011). Capital requirements govern the ratio of equity to debt, recorded on the liabilities and equity side of a firm's balance sheet. They should not be confused with reserve requirement, which govern the assets side of a bank's balance sheet (Amahalu & Chinyere, 2017). Traditional approaches to bank regulation emphasize the view that the existence of capital adequacy regulation plays a crucial role in the long-term financing and solvency position of banks, especially in helping the banks to avoid bankruptcies and their negative externalities on the financial system.

According to the capital adequacy standard set by international settlements banks must have a primary capital base equal at least to eight percent (8%) of their assets. Capital adequacy is used to protect depositors, to absorb any risk that may happen as well as promote the stability and efficiency of financial systems. On the other hand, risk-weighted assets are used to determine the minimum amount of capital that must be held by banks to reduce the risk of insolvency. For example, a loan that is secured by a letter of credit is considered to be riskier and requires more capital than a mortgage loan that is secured with collateral. The minimum capital adequacy ratio that banks must maintain is 8%.

## Liquidity management requirements

Liquidity is the ability of a bank to ensure the availability of funds to meet its short-term obligations when they fall due (Harrison, 2013). Liquidity is the state or condition of a bank which determines its ability to meet or discharge its maturing obligations when they fall due. These maturing obligations are composed of current liabilities and long-term debts. Liquidity can also be defined as a measure of the relative amount of asset in cash or which can be quickly converted into cash without any loss in value available to meet short term liabilities (Olagunju, 2011).

Liquidity management is the strategy that a bank adopts to optimize, maximize, and safeguard its liquidity(Okoth, 2017). It is a process of lessening liquidity risk. Liquidity management is a process of ensuring that a bank has the cash in hand to meet its financial obligations as they come due. Liquidity management is the ability of the bank to ensure the availability of funds to meet financial commitments or maturing obligations at a reasonable price when they fall due (Vintila & Nenu, 2016).

Respecting liquidity management requirement should be a priority for all banks. This gives a clear indication of financial health and provides visibility into how well a bank can afford its current and future debts, short-term investments, obligations, and spend with its liquid cash and assets at hand. Respecting liquidity management requirement helps to minimize liquidity risk; capture the financial health of the bank and predict future cash positions (Amalendu & Sri, 2011).

Central bank's liquidity management requirements help banks to always meet its short term obligations. The most important short-term obligations that banks need to meet are the immature withdraw of customers(Osolo, 2022). Liquidity management requirement helps banks to put its liquidity asset into productive use, but not let it go near to zero because even though it needs to use them to generate income it is not good to go in a liquidity crisis because banking institutions must plan for potential unanticipated withdrawals of deposits in addition to its lending programs(Khan & Ali, 2016).

Liquidity management requirement help bank to keep up its brand because everyone knows that whenever he/she come to withdraw his/her money that he/she wants then he/she finds it, this build trust between bank and clients and they deposit their money without any worriers of losing it whenever they want, and of because this helps bank to use customers' deposit to grant loans to other customers as intermediate which bring enough interest to both bank and customers. They more said that here what bank always keep in mind is that it doesn't exceed 80% of these deposit(Harelimana & Uwibambe, 2022). Liquidity management requirements have a significant positive impact on financial performance of commercial banks as they reduce liquidity risks; help to meet its short-term obligations when they fall due; increase lending capacity; increase reputation of the bank among customers; meet customer withdrawal demands; help the bank to cover operational expenses; maintain existing investors and attract new ones; increase solvency of the bank and promote bank expansion and growth (Ibe, 2013).

#### Credit risk management requirements

Compliance with credit risk management requirements reduces the level of credit defaults and the level of NPL; increases the adequate cash to meet future credit demand; reduces credit collection costs; reduces the level of bad debts losses; increases bank turnovers and increases bank reputation among customers. Credit risk management is the process by which risks that are inherent in credit process are managed and controlled in order to reduce the occurrence of non-performing credits (Latifee, 2012).

Central Banks require commercial banks that the rate of performing loans must be greater than 95%. The rate of non-performing loans must be less than 5%, these rates helps bank to manage loan properly by providing the loan for the client who is able to repay the loan with its corresponding interests, as a results performing loans are increased and non-performing loans are reduced, hence effective performance for the bank(Nduwayo, 2015). The basis of a sound credit risk management system includes guidelines and regulations that clearly outline the scope and allocation of bank credit facilities and the manner in which credit portfolio is managed that is how loans are originated, appraised, supervised and collected.

Credit risk management helps commercial banks to reduce their exposure to risks of non -performing loans, and enhance their ability to compete in the market with other well established financial institutions. Therefore credit risk management requirement in commercial banks influence the efficiency of risk management and are expected to significantly contribute in reducing non- performing loan level which later leads to bank's profitability(Latiffe, 2006).

Commercial banks need to comply with credit risk management requirement in order to manage effectively the credit risk, ensure the financial performance, meet its objectives, minimize cash loss and ensure that they perform better by increasing the return on assets. The Central Bank plays a major part in credit risk management for commercial banks by laying down guidelines for the banking institutions to follow(Alshatti, 2015).

#### Financial performance

Fianancial performance refers to the ability of the firm to manage its finances in order to achieve its goals and objectives in effective and efficient manner (Pandey, 2005). Financial performance is measured by how efficient the enterprise is in use of resources in achieving its objectives. Financial performance measures a firm's financial health based on assets, liabilities, revenue, expenses, equity, and profitability (Parker, 2012). Financial performance is firm's overall financial health over a given period of time (Pandey, 2005). Financial performance of a firm for a period can be ascertained through the process of financial performance

analysis. Financial performance is a general measure of a firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry through performing analytical reviews or to compare industries or sectors in aggregation or firm's performance across time (Sufian, 2009).

Moreover, performance of business refers to the ability of business to meet the required standards, increased market share, improve facilities, ensuring returns on profitability, and total reduction and once this is achieved, a business is believed to be performing effectively (Mwaura, 2005). Moreover, performance can be defined as a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. This term is also used as a general measure of a firm's overall financial health over a given period of time, and it can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. The performance measurement concept indicates that employees can increase the value of the firm by; increasing the size of a firm's future cash flows, by accelerating the receipt of those cash flows, or by making them more certain or less risky (Pandey, 2005).

There are many different ways to measure performance, but all measures should be taken in aggregation. Some of the indicators of financial performance are liquidity ratios, asset management ratios, profitability ratios, leverage ratios and market value ratios. Therefore, the appropriate performance measures are those which enable organizations to direct their actions towards achieving their strategic objectives. Moreover, performance measures can be helpful in understanding how the business works and consequently enhances decision making both at the top management and at the operating level. Finally, performance measures can be used to motivate employees, increase accountability and reward certain behaviors and results (Parker, 2012).

#### III. Materials And Methods

#### Research design

The study used descriptive correlational research design and quantitative method was used in data collection and analysis.

## **Participants**

The population size for this study was composed of 86 employees of Raw Bank. Due to the fact that study population is small, the researcher used 86 respondents as sample size since they are few in number, therefore, the researcher can access to them easily.

#### **Research instruments**

For primary data, the researcher used a questionnaire which was submitted to 86 employees of Raw Bank so as to get the needed information. The researcher used 5 Likert questions, including 1=Strongly agree (SA), 2=agree (A), 3=Neutral, 4=Disagree (D), and 5=Strongly disagree (SD). For secondary data, the researcher obtained them from published financial reports of Raw Bank which are publicly available from the bank's website.

#### Data analysis

Data analysis aims at fulfilling the research objectives and providing answers to the research questions. In addition, multiple regression model and correlation analysis were used to establish the relationship between operational risk management practices and financial performance of Raw Bank. Analysis of variance (ANOVA) will be also used to test the significance of the model in explaining the relationship between variables. The statistical significance of the model specified during the regression analysis will be tested at a 5% significance level. The regression model adopted was of the following form:

 $Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$ 

Where:  $Y = Dependent \ variable \ (financial \ performance)$  as indicated by Return on Asset (ROA), Return on Equity (ROE).

 $X_1$ - $X_4$  = Independent variables

 $X_1$  = Capital adequacy requirements

 $X_2$  = Liquidity management requirements

X<sub>3</sub>= Credit risk management requirements

 $\beta_1$ ,  $\beta_2$ , &  $\beta_3$  = The regression coefficient

e= Error term

Here,  $\alpha$  is the constant value which the dependent variable is predicted to have if the independent variables are equal to zero and  $\beta$  is the coefficient of the function; it is a value for the regression equation to predict the variances in the dependent variable from the independent variables. This means that if  $\beta$  coefficient is negative, the predictor or the independent variable affects the dependent variable negatively: one-unit increase in independent variable may decrease the dependent variable by the coefficient amount. In the same way, if the  $\beta$  coefficient is positive, the dependent variable increases by the coefficient amount.

#### **Ethical consideration**

Respondents' participation was voluntary and they had the right to withdraw from the study at any time they are not interested. Adequate level of confidentiality of the research data was ensured, respect for the dignity of research participants was prioritized, full consent was obtained from the participants prior to the study. Any type of communication in relation to the research was done with honesty and transparency. Works of other authors used in any part of the thesis were recognized. Any types of misleading information, as well as representation of primary data findings in a biased way were avoided.

IV. **Findings** 

Table 1. Respondents' view on capital adequacy requirements

Statements	Mean	Std. Deviation
Raw Bank closely monitors the compliance to capital adequacy requirements as imposed	4.21	.408
Raw Bank respects capital adequacy requirements to avoid the risk of becoming insolvent	4.25	.435
Compliance to capital adequacy requirements by Raw Bank increases internal strength of the bank to resist losses during crisis	4.35	.481
Compliance to capital adequacy requirements helps Raw Bank to protect depositors, absorb any risk that may happen as well as promote the stability and efficiency of financial system	4.31	.466
Raw Bank did not get capital problems in the last 5 years.	4.34	.477
Overall mean	4.292	

Source: Primary data, (2023)

From the above findings, majority of respondents strongly agreed that Raw Bank closely monitors the compliance to capital adequacy requirements as imposed (Mean= 4.21, S.D=0.408); Raw Bank respects capital adequacy requirements to avoid the risk of becoming insolvent(Mean= 4.25, S.D=0.435); compliance to capital adequacy requirements by Raw Bank increases internal strength of the bank to resist losses during crisis (Mean= 4.35, S.D=0.481); compliance to capital adequacy requirements helps Raw Bank to protect depositors, absorb any risk that may happen as well as promote the stability and efficiency of financial system (Mean= 4.31, S.D=0.466); Raw Bank did not get capital problems in the last 5 years (Mean= 4.34, S.D=0.477).

Table 2. Calculation of Capital adequacy ratio in Raw Bank

Years	2017(FC)	2018(FC)	2019(FC)	2020(FC)	2021(FC)
Items					
Core capital (1)	152,165,384	234,134,326	258,701,106	345,866,689	442,732,936
Supplementary capital (2)	7,600,678	8,761,584	12,985,063	16,630,145	16,841,187
Total qualifying capital (3)	159,766,062	242,895,910	271,686,169	362,496,834	459,574,123
= 1+2					
Total RWA(4)	679,640,835	1,084,325,635	1,298,964,357	1,552,983,027	1,870,939,568
Core capital/RWA					
(1/4)=10%	22.4%	21.5%	19.9%	22.2%	23.7%
Total qualifying	23.5%	22.4%	20.9%	23.3%	24.5%
capital/RWA (3/4)=12.5%					

Source: Annual financial report of Raw Bank from 2017-2021

The findings demonstrate that core capital to risk weighted assets was 22.4%; 21.5% 19.9%; 22.2% and 23.7% respectively from 2017to 2021. Normally this is good for Raw Bank because these results ensure that the available resources to meet claims against deposit takers are enough because the regulation of Central Bank of DRC requires banks to hold a minimum total of 10% of core capital to risks weighted assets. And in most of the years under study, Raw Bank had more than 2 times of this. Also total qualifying capital to risk weighted assets is 23.5%; 22.4%; 20.9%; 23.3% and 24.5% from 2017to 2021. This means that capitalization enables Raw Bank to mitigate the proportion of non-performing loans because Central Bank of DRC regulation requires banks to hold a minimum total of 12.5% of total qualifying capital to risk weighted assets and the bank under study exceeded this percentage in each year of the covered period. Normally, banks must maintain adequate capital in their banking operations if they want to survive; protect depositors; absorb any risk and abnormal situations.

Table 3. Relationship between capital adequacy requirements and financial performance of Raw Bank

_		Capital adequacy requirements	Financial performance
Capital adequacy requirements	Pearson Correlation	1	.872**
	Sig. (2-tailed)		.000
	N	86	86
Financial performance	Pearson Correlation	.872**	1
	Sig. (2-tailed)	.000	
	N	86	86
**. Correlation is			

In table above, statistical evidence shows that there is a positive high relationship between capital adequacy requirements and financial performance of Raw Bank which is equal to .872\*\*and the sig. is .000 which is less than 0.01. When Sig. is less than significant level, therefore, the researcher concludes that variables are correlated. This leads to confirm that there is a significant positive relationship between capital adequacy requirements and financial performance of Raw Bank. This implies that capital adequacy requirements have positive effect on financial performance of Raw Bank. Yahaya, *et al.*, (2013) who found the capital adequacy requirements had positive relationship with firm performance. Mwenda (2018) who established that there was a positive and statistically significant relationship between capital adequacy regulations and financial performance. Musengimana and Mulyungi (2017) who revealed that that ensuring compliance to capital requirements as imposed by The BNR would result to increased financial performance of the bank.

Table 4. Respondents' view on liquidity management requirement

Statements	Mean	Std. Deviation
Raw Bank reduces liquidity risk by complying with liquidity management regulations set by Central Bank of DRC	4.26	.441
Raw Bank closely monitors the compliance to liquidity requirements as imposed by the Central Bank of DRC	4.28	.452
Staff of Raw Bank are trained to implement the liquidity regulations as imposed by the Central Bank of DRC	4.29	.457
Compliance to liquidity requirements helps Raw Bank to ensure the availability of funds to meet its short-term obligations when they fall due	4.31	.466
Compliance to liquidity management requirements helps Raw Bank to meet customers' withdrawal demand, cover its operating expenses, reduce liquidity risks; increase lending capacity and boost its reputation among customers	4.34	.477
Raw Bank did not get liquidity problems in the last 5 years	4.39	.489
Raw Bank has well designed channel of communication necessary to communicate when there is liquidity issues.		
	4.35	.481
Overall mean	4.317	

Source: Primary data, (2023)

From the above findings, majority of respondents strongly agreed that Raw Bank reduces liquidity risk by complying with liquidity management regulations set by Central Bank of DRC(Mean= 4.26, S.D=0.441); Raw Bank closely monitors the compliance to liquidity requirements as imposed by the Central Bank of DRC (Mean= 4.28, S.D=0.452); staff of Raw Bank are trained to implement the liquidity regulations as imposed by the Central Bank of DRC (Mean= 4.29, S.D=0.457); compliance to liquidity requirements helps Raw Bank to ensure the availability of funds to meet its short-term obligations when they fall due (Mean= 4.31, S.D=0.466); compliance to liquidity management requirements helps Raw Bank to meet customers' withdrawal demand, cover its operating expenses, reduce liquidity risks; increase lending capacity and boost its reputation among customers (Mean= 4.34, S.D=0.477); Raw Bank did not get liquidity problems in the last 5 years (Mean= 4.39, S.D=0.489); Raw Bank has well designed channel of communication necessary to communicate when there is liquidity issues (Mean= 4.35, S.D=0.481).

Table 5. Calculation of current ratio

Year	Current Asset (FC)	Current Liabilities (FC)	CR=CA/ CL
2017	1,419,736,996	399,405,834	3.5
2018	1,551,150,555	450,033,516	3.4

2019	2,123,619,670	636,528,785	3.3
2020	3,982,891,659	407,495,853	9.8
2021	6,345,077,419	1,289,701,360	4.9

**Source**: Computed based on Raw Bank annual financial report (2017-2021)

The table 4.10 above shows that current ratio was 3.5 in 2017; 3.4 in 2018; 3.3 in 2019; 9.8 in 2020 and 4.9 in 2021. During the study period (2017-2021), it had enough assets to cover its short-term obligations because the ratios for the period under study were greater than 1 as it was 3.5; 3.4; 3.3; 9.8 and 4.9 respectively. For this ratio, the one which is less than 1 means that the bank does not have enough ability to cover its short-term obligations when they fall due; for the one which is greater than 1 means that the bank has enough ability to cover its short-term obligations when they fall due. As shown in the above table; the current ratio has increased during the study period (2018-2022); this shows that Raw Bank was able to cover all its short term obligations once they fall due as the ratios were greater than 1.

Table 6. Calculation of Liquid Asset to total Assets ratio

Year	Liquid Asset (Frw 000)(1)	Total Asset (Frw 000)(2)	LAR=1/2*100
2017	1,419,736,996	2,183,050,332	65.1%
2018	1,551,150,555	2,737,639,829	56.6%
2019	2,123,619,670	3,583,722,548	59.2%
2020	3,982,891,659	5,701,568,635	69.8%
2021	6,345,077,419	8,409,718,124	75.4%

**Source:** Computed based on annual financial report of Raw Bank from 2017-2021

Liquid Asset to assets ratio must not be less than 20% as required by Central Bank of DRC. Looking at the results it is clear that from 2017- 2021 the Liquid Assets to total Assets was: 65.1%; 56.6%; 59.2%; 69.8% and 75.4% respectively. This shows that in almost all the years under study the liquidity assets covered the average of 65.5% of the total assets. Central Bank of DRC's liquidity management requirement states that the minimum liquidity ratio of 20% is imposed to ensure that banks are all the time capable of meeting the average cas withdraws demands, and Raw Bank exceeded this as it is proved by the above calculated liquidity ratios.

Table 7. Relationship between liquidity management requirement and financial performance of Raw Bank

Dunk				
		Liquidity management requirement	Financial performance	
Liquidity management requirement	Pearson Correlation	1	.824**	
	Sig. (2-tailed)		.000	
	N	86	86	
Financial performance	Pearson Correlation	.824**	1	
	Sig. (2-tailed)	.000		
	N	86	86	
**. Correlation is significant at the 0.01 level (2-tailed).				

In table above, statistical evidence shows that there is a positive high relationship between liquidity management requirements and financial performance of Raw Bank which is equal to .824\*\* and the sig. is .000 which is less than 0.01. When Sig. is less than significant level, therefore, the researcher concludes that variables are correlated. This leads to confirm that there is a significant positive relationship between liquidity management requirements and financial performance of Raw Bank. This implies that liquidity management requirements have positive effect on financial performance of Raw Bank. These findings are in accordance with the observation of Harelimana and Uwibambe, (2022) who confirmed that central bank's liquidity management requirement help BK to keep up its Brand.

Table 8. Respondents' view on credit risk management requirement

Statements	Mean	Std. Deviation		
Raw Bank closely monitors the compliance with Performing Loans and Non-Performing Loans levels as imposed by the Central Bank of DRC	4.28	.452		
Compliance with credit risk management requirement help Raw Bank to reduce the level of credit defaults	4.29	.457		
Compliance with credit risk management requirement help Raw Bank to increase the adequate cash to meet future credit demand	4.26	.441		

Compliance with credit risk management requirement facilitates Raw Bank to reduce credit collection costs	4.31	.466
Compliance with credit risk management requirement helps Raw Bank to increase bank	4.39	.489
turnovers Overall mean		
Overan mean	4.306	

Source: Primary data, (2023)

From the above findings, majority of respondents strongly agreed that Raw Bank closely monitors the compliance with Performing Loans and Non-Performing Loans levels as imposed by the Central Bank of DRC(Mean= 4.28, S.D=0.452);compliance with credit risk management requirement help Raw Bank to reduce the level of credit defaults (Mean= 4.29, S.D=0.457); compliance with credit risk management requirement help Raw Bank to increase the adequate cash to meet future credit demand (Mean= 4.26, S.D=0.441); compliance with credit risk management requirement facilitates Raw Bank to reduce credit collection costs (Mean= 4.31, S.D=0.466); Compliance with credit risk management requirement helps Raw Bank to increase bank turnovers (Mean= 4.39, S.D=0.489).

Table 9. Level of performing credits and non-performing credits in Raw Bank (2017-2021)

Years	Credits granted (FC)	Performing Credits (FC)	Rate of recovery	Non-performing credits (FC)	Percentage of NPC
2017	679,640,835	625,781,643	96.1	26, 859,192	3.9
2018	1,084,325, 635	1, 052, 919, 759	97.1	31,405,876	2.9
2019	1, 298, 964, 357	1, 276, 823, 261	98.3	22,141,096	1.7
2020	1,552,983,027	1,456,447,538	93.8	96,535,489	6.2
2021	1,870,939,568	1,785,491,705	95.4	85,447,863	4.6

Source: Raw Bank annual report from 2017-2021

In 2017, the amount of credits granted was 679,640,835 FC and the level of performing credits was625,781,643 FC which simply means that 96.1% of credits granted were reimbursed. In 2018, the amount of credits granted was1,084,325, 635 FC and the level of performing creditwas1, 052, 919, 759 FC which simply means that 97.1% of credits granted were reimbursed. In 2019, the amount of credits granted was1, 298, 964, 357 FC and the level of performing credits was1, 276, 823, 261 FC which simply means that 98.3% of credits granted were repaid. In 2020,the amount of credits granted was1,552,983,027 FC and the level of performing credits was 1,456,447,538 FC which means that 93.8% of credits granted were repaid. In 2021,the amount of credits granted was1,870,939,568 FC and the level of performing credits was 1,785,491,705 FC which means that 95.4% of credits granted were repaid.

According the table above, the recovery rate was 96.1% in 2017; 97.1% in 2018; 98.3% in 2019; 93.8% in 2020 and 95.4 in 2021. In 2017;2018;2019 and 2021 the majority of credits granted by Raw Bank to borrowers were reimbursed at terms of contract and respected the central bank of DRC requirements saying that the rate of performing credit must be greater than 95%. But in 2020, Raw Bank did not respect the requirement of Central bank where level of performing credit was less than 95%, where it was 93.8%. This situation was caused by fact that the borrowers of this bank did no longer repay credits, they become defaulters because of crisis caused by COVID-19 Pandemic. And again due to continuous crisis of COVID-19 Pandemic, the commercial activities were not running properly as it was before the pandemic, then, this prevented borrowers from repaying credits as agreed.

Even if the great amount were reimbursed, there are some non-reimbursed credits which constituted the risk of non-reimbursed credits in Raw Bank. In 2017, the amount of credit granted was 625,781,643 FC and the non performing credits were 26, 859,192 FC which simply means that 3.9% of credits granted were not reimbursed.

In 2018, the amounts of credits granted was 1,084,325, 635 FC, then the non-performing credits were 31,405,876 FC meaning that 2.9% of the total credits granted were not reimbursed. In 2019, the amount of credits granted was 1,298, 964, 357 FC then the non performing credits were 22,141,096 FC meaning that 1.7% of the total credits granted were not reimbursed. In 2020, the amount of credits granted was 1,552,983,027 FC and the non performing credits were 96,535,489 FC which simply means that 6.2% of credits granted were not reimbursed. In 2021, the amount of credits granted was 1,870,939,568FC and the non performing credits were 85,447,863FC which simply means that 4.6% of credits granted were not reimbursed.

The Central Bank of DRC requires banks that the rate of non-performing credits must be less than 5% and this means that in 2017; 2018;2019 and 2021 the rate of non-performing credit less than 5% meaning 3.9% in 2017; 2.9% in 2018;1.7% in 2019 and 4.6 in 2021. The low level of non-performing credits shows that Raw

Bank has profitability because a higher rate of NPLs and an absolute deterioration of credit portfolio quality affect negatively commercial bank's financial profitability and sustainability. But in 2020, Raw Bank did not respect the requirement of Central Bank of DRC where level of non- performing credit was greater than 5%, where it was 6.2%. This situation was caused by fact that the borrowers of this bank did no longer repay credits, they become defaulters because of COVID-19 Pandemic, they were not running their business activities properly as it was before the pandemic, as a results, they were not able to repay credits and their corresponding interests as agreed.

Table 10. Relationship between credit risk management requirement and financial performance of Raw Bank

		Credit risk management requirement	Financial performance
Credit risk management requirement	Pearson Correlation	1	.798**
	Sig. (2-tailed)		.000
	N	86	86
Financial performance	Pearson Correlation	.798**	1
	Sig. (2-tailed)	.000	
	N	86	86
**. Correlation is significant at the 0.01 level (2-tailed).			

The table 10 above indicates that there is a positive high relationship between credit risk management requirements and financial performance of Raw Bank which is equal to .798\*\*and the sig. is .000 which is less than 0.01. When Sig. is less than significant level, therefore, the researcher concludes that variables are correlated. This leads to confirm that there is a significant positive relationship between credit risk management requirements and financial performance of Raw Bank. This implies that credit risk management requirements have positive effect on financial performance of Raw Bank. These findings are agreement with the observation of Alshatti (2015) who found that credit risk management requirement has positive effect on profitability of Jordanian commercial banks. Abiola and Olausi (2014) who revealed that credit risk management requirement has a significant impact on the performance of the banks in Nigeria.

Table 11. Return on Assets of Raw Bank

Years	Net profit(FC)	Total assets(FC)	ROA=Net profit/total assets
2017	9,393,154	2,183,050,332	0.0043
2018	38,605,590	2,737,639,829	0.0141
2019	12,468,638	3,583,722,548	0.0035
2020	(91,708,190)	5,701,568,635	-0.0161
2021	83,651,426	8,409,718,124	0.0099

**Source:** Computed based on Raw Bank annual financial report (2017-2021)

Table 11 demonstrates the return on assets (ROA), an indicator of profitability of Raw Bank over the period of the study; that is from 2017 to 2021. From the table, ROA was 0.0043 in 2017; 0.0141 in 2018; 0.0035 in 2019; (0.0161) in 2020 and 0.0099 in 2021. This means 0.43% in 2017; 1.41% in 2018; 0.35% in 2019; (1.61%) in 2020 and 0.99% in 2021respectively. This implies that 100 FC invested by Raw Bank in assets in the year 2017 generated a return (profit) of 0.43 FC; 100 FC invested in asset in 2018 generated 1.41FC as net profit; 100 FC invested in assets by Raw Bank in 2019 generated 0.35 FC as net profit; 100 FC invested in assets by Raw Bank in 2021 generated a profit of 0.99 FC.

Table 12. Return on Equity of Raw Bank

Years	Net profit (FC)	Total Equity (FC)	ROE=Net profit/ Equity
2017	9,393,154	159,766,062	0.059
2018	38,605,590	242,895,910	0.159
2019	12,468,638	271,686,169	0.046
2020	(91,708,190)	362,496,834	-0.253
2021	83,651,426	459,574,123	0.182

**Source:** Own calculation based on Raw Bank annual financial report (2017-2021)

Table 12 shows the Return on Equity (ROE) as an indicator of profitability of Raw Bank over the period of study; that is 2017 to 2021. From the table, ROE was 0.059 in 2017; 0.159 in 2018; 0.046 in 2019; (0.253) in 2020 and 0.182 in 2022. This is to mean 5.9%; 15.9%; 4.6%; (25.3%) and 18.2% respectively. This implies that 100 FC invested by shareholders in Equity generated 5.9FC; 15.9FC; 4.6FC as net profit in 2017;

2018 and 2019 respectively; 25.3 FC as a loss in 2020 and 18.2 FC as net profit in 2021. In 2017; 2018; 2019 and 2021 the bank generated profit to maximize shareholders wealth but in 2020 it did not as it got a loss. This poor performance in 2020 in Raw Bank was caused by fact that clients of this bank did no longer deposit money to their account because of crisis caused by COVID-19 Pandemic. And again due to continuous crisis of COVID-19 Pandemic, the commercial activities were not running properly as it was before the pandemic, then the Central bank of DRC required banks to collect the principal only and stop collecting the interests from borrowers (Central bank of DRC exonerated borrowers to pay the interests on their loans). Therefore, all these reduced the revenue intended by Raw Bank, and caused the loss in 2020.

Table 13. Net profit margin of Raw Bank

Years	Net profit(FC)	Total Sales(FC)	NPM= Net profit/sales
2017	9,393,154	168,802,623	0.0556
2018	38,605,590	253,129,888	0.1525
2019	12,468,638	341,525,515	0.0365
2020	(91,708,190)	400,984,549	-0.2287
2021	83,651,426	554,868,454	0.1508

**Source**: Own calculation based on Raw Bank annual financial report (2017-2021)

Net profit margin measures a bank's efficiency in converting sales into net income. Findings in Table 13 above show that the net profit margin of the bank was5.56%; 15.25% ;3.65%; (22.87%) and 15.08% in 2017;2018; 2019; 2020 and 2021 respectively. This indicates that Raw Bank generated 5.56FC of profit from 100 FC of sales in 2017; 15.25FC of profit from 100FC of sales in 2018; 3.65FC of profit from 100 FC of sales in 2019; 22.87 FC of loss from 100 FC of sales in 2020 and 15.08 FC of profit from 100 FC of sales in 2021. Net profit margin shows a return on every unit of sale after taking into account both cost of sale and expenses and the higher the ratio in relation to the industry average ratio, the higher the profitability of these firm and vice versa. Higher ratio shows the higher profitability that through net profit margin the firm's ability to earn a return can easily be measured. These indicated that Raw Bank was able to convert its sales into profits in 2017; 2018; 2019 and 2021 as the net profit margin generated by bank was positive. But in 2020, this bank failed to convert its sales into profits because operating expenses were too high as it got a loss. This implies Raw Bank was able to minimize its operating expenses in order to generate a good profit in 2017, 2018, 2019 and 2021 and in 2020 it was not the case because it got a loss meaning that operating expenses exceeded sales.

Table 14. Respondents' view on the effect of prudential ratios on financial performance of Raw Bank

Statements	Mean	Std. Deviation
Prudential ratios facilitate Raw Bank to boosts its Return assets	4.28	.452
Prudential ratios help Raw Bank to increase its Return Equity	4.29	.457
Prudential ratios help Raw Bank to increase its Net profit margin	4.30	.462
Prudential ratios help Raw Bank to run its banking operations efficiently and effectively	4.21	.408
Overall mean		

Source: Primary data, (2023)

From the above findings, the majority of respondents strongly agreed that prudential ratios facilitate Raw Bank to boosts its Return assets (Mean= 4.28, S.D=0.452); prudential ratios help Raw Bank to increase its Return Equity (Mean= 4.29, S.D=0.457); prudential ratios help Raw Bank to increase its Net profit margin (Mean= 4.30, S.D=0.462) and prudential ratios help Raw Bank to run its banking operations efficiently and effectively (Mean= 4.21, S.D=0.408).

Table 15. Model Summary

	Table 13. Wodel Summary					
Model	Model R R Square Adjusted R Square		Std. Error of the Estimate			
1	1 .982 <sup>a</sup> .884 .826 .063					
a. Pro	a. Predictors: (Constant), Capital adequacy requirements, Liquidity risk management requirements and Credit risk management requirements					
b. Dependent Variable: Financial performance of Raw Bank						

Table 4.20above shows that the coefficient correlation R=0.982. This indicates that there is a positive strong relationship between prudential ratios on financial performance of Raw Bank. The coefficient of

determination, adjusted R Square indicates the variation in the dependent variable (Financial performance) due to changes in the independent variable. From the findings in the above table the value of adjusted R square was 0.826. This indicates that there was a variation of 82.6% in financial performance of Raw Bank due to changes in capital adequacy requirements, liquidity risk management requirements and credit risk management requirements. However, 17.4% of the variation in the profitability of this bank is explained by other factors which are not explained by this model.

Table 16. Analysis of Variance (ANOVA)

Model		Sum of Squares Df Mean Square		F	Sig.	
1	Regression	16.058	4	4.014	79.987	.000ª
	Residual	4.567	82	.050		
	Total	20.625	86			
a. Predictors: (Constant), Capital adequacy requirements, Liquidity management requirements and Credit risk management requirements						
	b. Dependent Variable: Financial performance					

Table 16 shows the value of significance (p-value) of the model was .000 which is less than 5%. This indicates that the selected variables (Capital adequacy requirements, liquidity management requirements and credit risk management requirements) are true predictors of the financial performance of Raw Bank. Besides, these parameters are perfect for making conclusions as the value of significance (p-value) is less than 5%. There is an indication that Capital adequacy requirements, liquidity management requirements and credit risk management requirements significantly influence financial performance of Raw Bank. As the significance value was less than 0.05, this indicates that the model was statistically significant at a 95% level of confidence.

**Table 17. Regression Model Coefficients** 

		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	T	Sig.
1	(Constant)	.634	.243		4.568	.000
	Capital adequacy requirements	.449	.293	.113	5.513	.003
	Liquidity management requirements	.434	.211	.144	2.910	.002
	Credit risk management requirements	.417	.192	.071	1.455	.000
a. Dependent Variable: Financial pe			e			

Table 17 above reveals that holding capital adequacy requirements, liquidity management requirements and credit risk management requirements to a constant zero, financial performance of Raw Bank would be 0.634, a unit increase in capital adequacy requirements would lead to increase in financial performance of Raw Bank by a factor of 0.449, a unit increase in liquidity management requirements would lead to increase in financial performance of Raw Bank by a factor of 0.434; a unit increase in credit risk management requirements would lead to increase in financial performance of Raw Bank by a factor of 0.417. The study also found out that the p-values of capital adequacy requirements (0.003), liquidity management requirements (0.002), and credit risk management requirements (0.000) were less than 0.05; an indication that the influence of capital adequacy requirements, liquidity management requirements and credit risk management requirements was enough to improve financial performance of Raw Bank. Therefore, the researcher concluded that capital adequacy requirements have a positive and significant effect on the financial performance of Raw Bank. Liquidity management requirements have a positive and significant relationship with financial performance of Raw Bank. Credit risk management requirements have a positive and significant relationship with financial performance of Raw Bank. Capital adequacy requirements, liquidity management requirements and credit risk management requirements positively influence the bank financial performance. Therefore, the specified regression model (Equation) was then identified as follow: Y=0.634+0.449X<sub>1</sub>+0.434X<sub>2</sub>+0.417X<sub>3</sub>

# V. Conclusion

Based on findings of this study, it was concluded that prudential ratios are important factors that influence the financial performance as they safeguard the financial health, soundness and stability of financial system. Prudential ratios include capital adequacy requirements, liquidity risk management requirements and credit risk management requirements; these have significant positive effect on financial performance. It was also established that there is a positive high relationship between capital adequacy requirements and financial performance of the bank. In addition, liquidity risk management requirements have a positive high relationship

with financial performance of the bank. Moreover, credit risk management requirements have a positive high relationship with financial performance of the bank. Through capital adequacy requirements, liquidity risk management requirements and credit risk management requirements, the bank is able to absorb any risk and abnormal situations, reduce liquidity risks, reduce the level of non-performing loans, maximize its sales, profitability, achieve its goals and objectives in terms of performance, maximize its lifetime value and survive in competitive environment.

# VI. Recommendations

The Board of Directors of Raw Bank as well as the overall management of the bank should continue implementing properly the regulations imposed by the Central Bank of DRC for them to run banking operations properly and achieve effective performance. By implementing strict regulations, Central Bank of DRC will discover banks that are struggling and provide remedial measures before they collapse, and depositors lose their money. Banks should fully comply with the stipulated regulations and the Central.