EFFECT OF RATIO ANALYSIS ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN RWANDA. A CASE OF BANK OF KIGALI PRIVATE LIMITED COMPANY

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ABSTRACT

Commercial banks have continued using various financial models for determining ratio analysis. However, commercial banks have not identified all the factors influencing financial performance and to which extent they influence financial performance of commercial banks in Rwanda. This study focused on the effect of ratio analysis on financial performance of commercial banks in Rwanda. A case of bank of Kigali PLC (2018-2021). Specifically, the study sought to achieve the following objectives; whether liquidity ratios has an effect on financial performance of commercial banks in Rwanda, to examine the extent to which operational efficiency ratios has an effect on financial performance of commercial banks in Rwanda and to establish the extent to which asset quality ratios affects the performance of commercial banks in Rwanda. The study adopted a descriptive research design where a census approach was carried out due to the small size of the units of analysis. Secondary data was used. Panel data was analyzed using SPSS software version 21 or regression analysis and model specification tests. Frequency tables were used to present the findings of the study. Ratio analysis factors were regressed on financial performance using panel regression models. The study revealed a significant relationship between liquidity, operational efficiency and asset quality on financial performance with operational efficiency being the most significant determinant of ratio analysis on financial performance of commercial banks in Rwanda. The study revealed that liquidity and ROA are positively but not significantly correlated (r=0.005) at 5% significance level. Further, results showed that efficiency and ROA are positively and significantly correlated (r=0.357**) at 5 % significance level. This implies that both efficiency and ROA change in the same direction. Asset quality Ratios had a significant negative relationship with ROA (r=- 0.479**) at 5 % significance level. From the findings as represented by the adjusted R^2, the independent variables that were studied explained 52.5% of the variations in ROA in Bank of Kigali. This therefore means the three variables contributed 52.5% of the variations in ROA In Bank of Kigali whereas other factors not researched contribute 47.5%. Regression results revealed that liquidity ratio was positively but not significantly related with ROA of Bank of Kigali (β=0.014, p=0.794). The outcomes further show that efficiency was positively and significantly related with ROA of Bank of Kigali (β=0.006, p=0.001). Asset Quality Ratios exhibited a negative and significant effect on ROA of banks (β=-.005, p=0.000). The study recommended that managers and regulatory bodies should concentrate on how to improve financial performance of commercial banks and how to put proper controls to mitigate the effects of financial distress factors on financial performance. Regulatory bodies should ensure that there is routine revision of

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their policies for the purpose of ensuring a level playing field for all commercial banks regardless of their size. Further, constant monitoring by regulatory bodies should be in place. Supervisors and heads of business banks ought to likewise deal with working on their productivity and decreasing their credit risk in a bid to upgrade their exhibition and to stay cutthroat in the steadily changing climate.

BACKGROUND OF THE STUDY

Globally, financial improvement of a specific nation is subject to various factors, for example, modern development and improvement, modernization of farming, extension of homegrown and unfamiliar exchange, political solidness, its reliance to biggest degree on the financial area is irrefutable as well as banks assume a critical part in working on monetary proficiency by diverting assets from asset overflow unit to those with restricted admittance or potentially the destitute, (Misra & Aspal, 2013). According Rostami (2015) since the banking business is a crucial component of the financial sector of an economy, it is necessary to measure its performance. Based on the standing of those nations having had a banking crisis, it has been noted that such instability might result in permanent harm to a country's economy.

According to Gupta (2014) ratio analysis in commercial banks refers to the process of determining financial strengths and weakness of the firm by establishing strategic relationship between the items of the balance sheet, profit and loss account and other operative data. Financial statements are statement of comprehensive income, financial position, statement of cash flow and statement of retained earnings (Ismail, 2013). Ratio analysis helps in assessing and predicting the earning prospect and growth rates in earning which are used by investors and other stakeholders while comparing investment alternatives and other users in judging earning potential of business organization (Almajali *et al.,* 2012).

Subsequently, most extreme consideration ought to be taken to keep up with the security and adequacy of business banks in Rwanda (Vianney, 2013). Any disappointment/occurrence in the financial business particularly in a nation where the business banks rule the monetary area will have an infectious impact that can prompt bank runs and emergencies. Consequently, it would be obligatory to investigate and go to proactive lengths to keep up with the soundness of the economy and develop the public certainty (Dukundane & Rukera, 2016).

While investigating monetary wellness, corporate bookkeepers and financial backers the same intently look at an organization's fiscal reports and asset reports to get an extensive image of benefit (Baba & Nasieku, 2016). The review used to take care of the issue made sense of, for example, budget summaries in their crude organization don't uncover the data according to expected by its clients. There are various measurements and comparing monetary proportions that are utilized to quantify productivity. Commonly, experts focus on the normalized productivity measurements illustrated in the sound accounting standards (GAAP), since they are effectively similar across business and enterprises, yet some non-GAAP measurements are generally utilized (Gupta, 2014).

There is likewise no presentation estimation among the confidential business banks working in the nation (Berger & Humphrey, 2013). This subverts the bank's monetary activities like productivity, effectiveness, liquidity, and dissolvability. A large

portion of the examinations on bank productivity have sorted the determinants of benefit into endogenous and exogenous variables (Ariffin, 2012). The endogenous elements are those firm unambiguous variables that outcome from the choice and approaches of the board (Tuvadaratragool, 2013). Consequently, effectiveness, benefit, liquidity, capital design, and resource quality proportions are among the endogenous variables (Zeitun & Saleh, 2015). Then again, market fixation, possession, and other macroeconomic factors, for example, monetary development and expansion are named exogenous elements.

Consequently, attributable to presence of extremely restricted writing in the topic and roused by proportion examination we investigated the exhibition among chose private business banks in Rwanda (Vianney, 2013). The reasoning behind zeroing in on bank explicit factors just is attributable to the current less cutthroat and exceptionally safeguarded Rwandan-banking climate. Also, the exogenous elements are not supposed to contrast among the objective banks that are chosen for this specific review since all are working under a similar monetary framework, same administrative organ and are inside a similar geographic region (BNR, 2015).

Proportion examination can be characterized as quantitative investigation of data contained in a company's fiscal summaries (Keovongvichith, 2012). A proportion is a demonstrated remainder of the numerical connection between one amount and another. The connection is communicated comparable to either a rate, a rate, or a just extent (San & Heng, 2013). Ongore and Kusa (2013) characterizes proportion examination as an investigation of the connection between monetary reports two numbers or sets of numbers. It is the particular execution of proportions to monetary records to survey the association's shortcomings and assets, including its previous presentation and current condition.

The connection between chose parts of fiscal summary information is communicated through proportion examination (Ahmed, 2018). Proportions can uncover basic circumstances that aren't generally clear while checking out at the particular components of a proportion. Be that as it may, a solitary proportion is truly not helpful all alone (Kiganda, 2014). Proportions give more data when looked at either for similar organization over the long run, Intracompany Comparisons, or with a rival in a similar industry, intercompany correlation, or in light of normal for specific industry, industry normal examination (Raja, & Naeem-Ullah, 2014).).

In regards to operationalization, there is diversity in when it comes to ratio analysis. Owoeye and Ogunmakin (2013) operationalize ratios in terms of liquidity, leverage, management quality, and credit risk and capital adequacy. Alemu and Negasa (2015) employed the CAMEL rating method, which incorporates important financial ratios to assess capital sufficiency, credit risk, managerial quality, profits, and liquidity of banks. The current study operationalized ratio analysis in relation to capital adequacy, leverage, liquidity, efficiency and credit risk.

Almajali, Alamro, and Al-Soub (2012) describe financial performance as a company's capacity to meet a set of financial objectives, like profitability. The magnitude by which a company's financial standards are fulfilled is referred to as financial performance. It displays how well financial goals have been met (Young, 2012). Financial performance, as per Baba and Nasieku (2016), indicates in what manner a firm utilizes assets in generating revenue and hence helps stakeholders in making their decisions. According to the current study, a company's financial position is defined as its ability to generate income out of its assets.

Financial performance is vital to shareholders, investors, and, by extension, the entire economy. The return on investment is completely worthwhile to investors, and having a good firm can provide greater and long-term revenue to individuals who invest (Alessandri & Nelson, 2015). Financial performance of a corporation is significant to its

health as well as its existence. As per Otuori (2013) company's excellent performance demonstrates its efficiency and effectiveness in managing its assets throughout operations, investments, as well as financial transactions.

Various methods of evaluating financial performance are used and should be harmonized. Asset returns (ROA), size of company, equity returns (ROE) and sales return (ROS) are factors recognized as measures of financial performance. ROA and ROE are the most recognized ways of measuring financial performance. The ROA evaluates the company's profitability using its total assets, whereas the ROE examines the way a company is using shareholder's equity. Kiruri (2013) posit that market based metrics like earnings per share, dividend yield, market to book value of equity and market capitalization can too be employed in financial performance measure. The current study utilized ROA as a metric of financial performance as it was the most recognized measure

Commercial banks have performed variably in terms of financial performance, with some seeing an increase in ROA while others have seen a decline. Over the past few years, we have seen certain banks, like BPR record declining performance to the extent of being acquired, and we have also seen more mergers among competing banks, all in an effort to maintain financial stability in the market (BNR, 2020). This clearly demonstrates the need to investigate whether ratio analysis can be utilized in predicting financial performance in the banking sector. Therefore, this work solely sought to examine the effect of ratio analysis on financial performance of commercial banks in Rwanda Using Bank of Kigali Plc.

Statement of the problem

A company's ability to stay productive is accepted to be unequivocally associated with trademark like liquidity, monetary influence, and proficiency. Striking, nonetheless, is the way that in spite of the key organization highlights portrayed here being factors that can foresee execution, past observational examinations have been not able to lay out this as reality. Kamau and Were (2013) holds that liquidity proportions, capital sufficiency proportions, credit risk proportions and the executives' quality proportions are indicators of monetary execution. This view has anyway been tested by a few past examinations which have found that a few monetary proportions can't be utilized in foreseeing monetary execution (Ismail, 2013; Almajali, Alamro & Al-Soub, 2012).

They can be assessed since organizational transactions of whole accounting period are summarized and presented in the form of ratio analysis. It is necessary to analyze how an organization is financially performing in order to take corrective measurement in the future by analyzing financial statements and ratios analysis such as liquidity, profitability and market ratios (Lagat & Nyandema, 2016).

Empirical research on ratio analysis predicting financial performance is present but there exist conceptual, contextual and methodological research gaps. Mwangi and Murigu, (2015) studied how management of credit risk and bank profitability relate and noted that the two variables were directly correlated. There exists a contextual gap as this study was conducted in Rwanda. Further, there exists a conceptual gap as this study did not consider other ratios. Rifqah and Hafinaz (2019) analyzed how credit risk, liquidity, and capital adequacy of banks in Indonesia impact profitability. Findings from the study showed presence of a substantial negative relation between the dependent variable (ROA) and the independent variables (NPLR, LDR, and CAR). This study presents a conceptual gap as some ratios such as efficiency ratio and asset quality ratio were left out.

Alsamaree (2013) analyzed financial ratios and the performance of banks case study was Kuwait (2007-2010). The purpose of this study is to make assessment on attention to the financial performance and financial ratios, including analysis contributed to decision-makers to take correct

decisions. About the methodology this study will use a descriptive approach by describing the analytical, diagnostic, analysis of data , information relating to the budgets and income statements had been taking financial analysis approach in monitoring the facts about the reality where application entrance qualitative approach which reflects the most important indicators that measure financial performance. He found that there was No statistically significant differences between the profitability of Kuwait Finance House (KFH) and capital adequacy (2007-2010).

Based on annual report on commercial banking supervision of 1995 - 2007 which indicated that most of banks failure comes from inappropriate uses of financial ratios, the origin of the problem is instead of implementing amendment recommended by National Bank of Rwanda some Micro-finances have experienced, at the end of 2005 and the beginning of 2006, a state of insolvency and closure of some of their counter.

As at September 30th, 2021, BK Group Plc is adequately capitalized with Total Capital to Risk Weighted Assets at 21.5%. The Group's Total Assets stood at FRw 1,5 trillion; up 28.5% y-o-y. Net Loans/Total Assets ratio stood 63.9%. Total dividend payable balance stood at FRw 31.4 billion, which include FRw 13.3 billion payable dividend for 2019 and a 50% pay-out ratio for the current year's profit. Shareholders' Equity increased to FRw 278.0 billion, up 16.4% y-o-y. Liquid Assets by Total Deposits stood at 42.5% as at September 30th, 2021 an increase from 37.9% in the same period last year (Bank of Kigali, 2021).

This study presents a methodological gap as it utilized interval scale due to the nature of its independent variable operationalized while the current study will utilize ratio scale. Thus, it was worthwhile for the study to seal the gap through establishment of the connection between ratio analysis and financial performance among banks in Rwanda. The current research was based on these gaps and attempts to answer the research question;

how effective is ratio analysis in predicting financial performance among commercial banks in Rwanda?

LITERATURE REVIEW

Liquidity Preference Model

Keynes (1935) accepted there were three intentions to holding cash; exchanges rationale, preparatory thought process, and theoretical intention. Under the speculative rationale, cash request was adversely connected with the loan fee subsequently influence. Holding cash was one approach to making preparations for vulnerability. Subsequently, liquidity inclination structure decides the harmony financing cost concerning organic market for cash. The model was created by Keynes (1936) in view of a few suppositions. In the first place, cash pays no revenue. Second, that there were just two sorts of resources for putting away abundance: cash and bonds

The hypothesis through its idea of holding cash as a prudent thought process makes sense of the significance of capital sufficiency and liquidity prerequisite of guaranteeing that any future monetary trouble is appropriately made due. What's more Modigiliani (2011) characterized liquidity as a resource as far as the flawlessness of the market in which it is exchanged. A resource is fluid in the event that a market is ideal consequently a singular choice to trade doesn't influence the cost limitedly since it is illiquid in the contrary case, it is riskless assuming the cost at which it sells is steady or basically so and its unsafe on the off chance that the cost vacillates broadly (Modigiliani, 2011). This hypothesis subsequently shows that liquidity, capital sufficiency, influence and effectiveness of the association's liquidity are the key monetary examination proportion that might impact monetary execution.

Conceptual Framework

The conceptual framework illustrates the relationship between the independent variables and the dependent variables. A concept is an abstract or general idea inferred or derived from specific instances (Kombo & Tromp, 2013), unlike a

theory, a concept does not need to be discussed to be understood (Yin & Yang, 2013). A theoretical system is a gadget that coordinates experimental perceptions in a significant Structure. Mugenda and Mugenda (2013) contended a theoretical system to be a bunch of expansive thoughts and standards taken from significant fields of enquiry and used to structure an ensuing show.

At the point when obviously expressed, a calculated system has expected helpfulness as an instrument to help a specialist to make importance of resulting discoveries. It frames part of the plan for discussion to be examined, tried, surveyed and transformed because of examination and it makes sense of the potential associations between the factors (Cooper & Schindler, 2013). Conceptual frameworks are pivotal to research as they clarify and integrate philosophical, methodological and pragmatic aspects of doctoral thesis while helping the profession to be seen as a research-based discipline, comfortable with the language of meta-theoretical debate, (Saunders, Lewis & Thornhill, 2016). A conceptual framework for the present study shows the effect of ratio analysis on financial performance of commercial banks in Rwanda and has been depicted in Figure 1 below. Figure 1 conceptualizes that financial distress factors (liquidity ratios, efficiency ratios, and asset quality ratios) influence on financial performance for commercial banks in Rwanda.
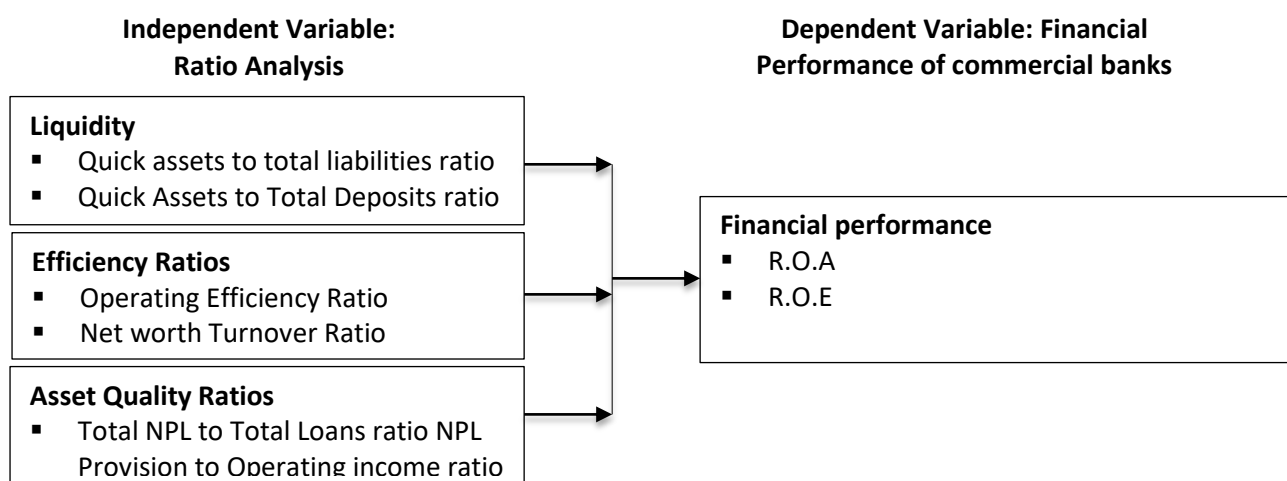
Independent Variable:
Ratio Analysis

Dependent Variable: Financial Performance of commercial banks

Liquidity
- Quick assets to total liabilities ratio
- Quick Assets to Total Deposits ratio

Efficiency Ratios
- Operating Efficiency Ratio
- Net worth Turnover Ratio

Asset Quality Ratios
- Total NPL to Total Loans ratio NPL Provision to Operating income ratio

Financial performance
- R.O.A
- R.O.E

Figure 1: Conceptual Framework

Source: Researcher, 2022.

METHODOLOGY

Research design: A research design refers to the arrangement of conditions for assortment and examination of information in a way that expects to consolidate significance to the exploration reason with economy in method (Kothari, 2014). According to Serakan (2013) the research design provides a plan or a framework for data collection and its analysis, and reveals the type of research and the priorities of the researcher. In general terms, the research design is considered as a program to guide the research in the collection, analysis and interpretation of observed facts.

This study adopted descriptive research design. Burns and Burns (2012) asserts that, a research design is the structure or blue print of research that guides the process of research from the time of formulating the research questions and hypothesis up to the time of reporting the research findings. The choice of research strategy according to (Cooper & Schindler, 2013) is guided by the research question(s), objective(s), the extent of existing knowledge, amount of time and resources available as well as the philosophical underpinning. Creswell, (2014) suggested that descriptive design enables the researcher to obtain information about

the status of the phenomena and it explains its association with the variables in the study.

Study population: A population is all observations from a collection of concern like events specified in an investigation (Burns & Burns, 2012). The current study's population was the financial statements from 2018 to 2021 as of December 2021. This comprised of 48 monthly statements published by Bank of Kigali.

Sampling: According to Kothari and Garg (2014) a sample consists in "using under group of the population considered which is theoretically ready to highlight a given phenomenon". The researcher applied census method for which the number of the target population is affordable. Hence, the sample size was equal to the target population. The research used a census technique since the population was comparatively small, and thus all elements of the population were studied.

Data Collection Methods and Tools: Data on the dependent and independent variables was collected by use of secondary data, mainly from financial statements. Mugenda (2012) defined data collection in research as the process of gathering and measuring information on targeted variables in established systematic fashion which enables the interviewee to draft relevant questions and determine the expected outcome. According to Orodho (2015) a quantitative research prefers a secondary data analysis to primary source of analysis. The author noted that secondary analysis of the existing research has become an increasing popular method unlike primary analysis due to its enhanced overall efficiency. Orodho (2015) further argued that secondary data has much clearer categorization because it avoids bias.

Data Analysis: In data analysis, version 21 of SPSS software was utilized. Tables presented the findings quantitative manner. Descriptive statistics were employed in the calculation of central tendency measures as well as dispersion such as mean as well as standard deviation for every variable. Inferential statistics relied on correlation as well as regression.

Correlation determined the magnitude of the affiliation between the variables in the research and a regression determined cause and effect among variables. A multivariate regression linearly established the relation between the dependent and independent variables.

Analytical Model: To ensure easy analysis, the questionnaires were coded according to each variable of the study. This study used descriptive and inferential statistics. According to Kothari & Gaurav (2014) descriptive analysis involves a process of transforming a mass of raw data into tables, charts, with frequency distribution and percentages, which are a vital part of making sense of the data. In this study, the descriptive statistics such as percentages and frequency distribution was used to analyze the demographic profile of the participants.

The test and correlation study was carried out to determine if there existed a significant relationship between the variables and to test whether there was a relationship amongst the independent variables.

A multiple regression model that was used in this study is shown below:

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

Where

Y= Dependent variable − Financial performance given as net income divided by total assets

α = Constant

μ= Error

β = Coefficients

X_1 = Liquidity ratio given as liquid assets to customer deposits

X_2 = Firm efficiency given as the ratio of total revenue to total operating expenses

X_3 = Asset quality ratios

Parametric tests were utilized to establish the relevance of the overall model and each specific variable. The F-test established the overall model's significance and this was achieved by means of ANOVA whereas a t-test determined coefficient significance.

RESULTS AND FINDINGS

Correlation Results

Correlation analysis was carried out to determine strength as well as association direction between each predictor variable and the response variable. The results in Table 1 show the nature of link between the research variables in terms of magnitudeand direction.

Table 1: Correlation Results

	ROA	Liquidity Ratios	Efficiency Ratios	Asset quality Ratios
ROA (r)				
(p) Sig. (2 tailed)	1.000			
Liquidity Ratios (r)	0.768*			
(p) (2 tailed)	0.000	1.000		
Efficiency Ratios (r)	0.357**	0689		
(p) Sig. (2 tailed)	0.032	0.032	1.000	
Asset quality Ratios (r)	- 0.479**	0.163	0.216	1.000
(p) Sig. (2 tailed)	0.000	0.019	0.098	

The outcomes in Table 1 revealed that liquidity and ROA are positively but not significantly correlated (r=0.005) at 5% significance level. Further, results show that efficiency and ROA are positively and significantly correlated (r=0.357**) at 5 % significance level. This implies that both efficiency and ROA change in the same direction. Asset quality Ratios had a significant negative relationship with ROA (r=- 0.479**) at 5 % significance level.

Diagnostic Tests

To ascertain the model viability, a number of diagnostic tests were done, like normality, stationarity, Multicollinearity test, homogeneity of variance and autocorrelation.

Normality Test

To test whether the collected data assumed a normal distribution, normality test was conducted using the Shapiro-Wilk Test. The threshold was that, if the p value is above0.05, then the data assumes a normally distribution.

Table 2: Test for Normality

	Shapiro-Wilk		
	Statistic	Df	Sig.
ROA	0.869	49	0.078
Liquidity Ratios	0.918	49	0.102
Efficiency Ratios	0.881	49	0.094
Asset quality Ratios	0.874	49	0.091
a. Lilliefors Significance Correction			

The outcomes of normality test yielded a p- value above 0.05 thus the null hypothesis rejection and acceptance of the alternate hypothesis meaning the normality test revealing normal distribution in the data.

Multicollinearity Test

Multicollinearity exists when a perfect or near perfect linear relation exist between a number of independent variables. Variance Inflation Factors (VIF) as well as tole,rancelevels were utilized.

Table 3: Test for Multicollinearity

Variable	Collinearity Statistics	
	Tolerance	VIF
Liquidity Ratios	0.724	1.382
Efficiency Ratios	0.684	1.463
Asset quality Ratios	0.697	1.434

The outcomes in Table 3 specify that all the variables had a VIF values <10 and tolerance values >0.2 suggesting that Multicollinearity did not exist.

Stationarity Test

Stationarity test was utilized in determining if the statistical characteristics such as variance, mean, as well as autocorrelation change with the passage of time. Table 4 shows Levin-Lin Chu unit root test outcomes.

Table 4: Levin-Lin Chu unit-root test

Variable	Levin-Lin Chu unit-root test		
	Hypothesis	p value	Verdict
Liquidity Ratios	Ho: Panels contain unit roots	0.0000	Reject Ho
Efficiency Ratios	Ho: Panels contain unit roots	0.0000	Reject Ho
Asset quality Ratios	Ho: Panels contain unit roots	0.0000	Reject Ho

The null hypotheses that: Panels contain unit roots were rejected for all variables since the p values were below 0.05, derived from the outcomes in Table 4. This meant that all of the variables' panel data were stationary.

Regression Results

Regression analysis was performed to determine the extent to which ROA is explainedby the selected variables. The regression results were presented in Table 5 to table 6.

Table 5: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.725[a]	.525	.509	.026893

a. Predictors: (Constant), Liquidity Ratios, Efficiency Ratios, Asset quality Ratios

From the findings as represented by the adjusted R^2, the independent variables that were studied explained 52.5% of the variations in ROA In Bank of Kigali. This therefore means the three variables contributed 52.5% of the variations in ROA In Bank of Kigali whereas other factors not researched contribute 47.5%.

Table 6: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.436	4	0.109	15.585	.000[b]
	Residual	1.904	272	0.007		
	Total	2.34	276			

a. Dependent Variable: Financial performance

b. Predictors: (Constant),   Liquidity Ratios, Efficiency Ratios, Asset quality Ratios

Table 6 ANOVA statistics depict that the data had a 0.000 level of significance hence this indicates that the data is perfect for making conclusions on the variables.

Table 7: Coefficient results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.080	.038		-2.111	.036
	Liquidity Ratios	.014	.052	.015	.261	.794
	Efficiency Ratios	.006	.002	.195	3.457	.001
	Asset quality Ratios	-.005	.001	-.401	-7.490	.000

The model can be represented as: $Y = -0.080 + 0.014 X_1 + 0.006 X_2 - 0.005 X_3$

Regression results revealed that liquidity ratio was positively but not significantly related with ROA of Bank of Kigali ($\beta=0.014$, $p=0.794$). These findings agree with those of Carlo (2014) who focused on the effectiveness of current ratio in determining share returns. The results showed that the change in share prices between the varying total assets and price income ratio was affected. The changes in stock price do not impact other independent variables such as the current ratios, equity returns, and the debt-to-equity ratio.

The outcomes further show that efficiency was positively and significantly related with ROA of Bank of Kigali ($\beta=0.006$, $p=0.001$). These findings agree with those of Maigua & Mouni (2016) who found a positive connection between efficiency and ROA. These findings are also consistent with those of Munene *et al.,* (2014) who examined the impact of efficiency on performance of banks in Kenya and established a positive and significant effect.

Asset Quality Ratios exhibited a negative and significant effect on ROA of banks ($\beta=-.005$, $p=0.000$). These findings concur with Gnawali (2017) who concluded that Asset quality ratios has a negative effect on ROA Nepalese Banks.

CONCLUSION AND RECOMMENDATION

The first objective of the study was to examine the effect of liquidity ratio analysis on financial performance of commercial banks in Rwanda. The review tried to decide the impact of liquidity on monetary execution of business banks in Rwanda. From the consequences of the examination directed by the review and speculation tried, it was presumed that liquidity affects the monetary presentation of business banks in Rwanda. This likewise implies that business banks liquidity has a troubling impact to monetary execution of business banks in Rwanda.

The second objective of the study was set to examine the effect of efficiency ratio analysis on financial performance of commercial banks in Rwanda. It was likewise presumed that working productivity affects the monetary exhibition of business banks in Rwanda. The discoveries of the examination showed that resource quality positioned as one of those variables with a constructive outcome on monetary execution of business banks in Rwanda.

The third objective of the study was to examine the effect of asset quality ratio analysis on financial performance of commercial banks in Rwanda. End was additionally drawn that resource quality proportion as a component impacts the monetary presentation of business banks in Rwanda. These discoveries further showed that as the relationship of resource quality proportion is positive the relationship of liquidity and execution is positive; this demonstrates that business banks sell their capital adjusts to guarantee they stay fluid for reasons for keeping away from monetary trouble

and expanding monetary execution of business banks in Rwanda.

Basing on the findings and interpretations as well as the theoretical aspects presented in the literature review this research recommends National Bank of Rwanda to speed up the sensitization campaign of the Rwandan commercial Banks to focus on ratios analysis as among the best tool to the financial performance in commercial bank.

The banking sector serves as one of the sectors expected to facilitate the realization of vision 2030. It ensures that there is provision of efficient financial services and investment opportunities to create vibrant and global competitive financial services in Rwanda that will create jobs and also promote high levels of savings to finance Rwanda investment needs. Globally competitive financial services by the banking sector will be achieved only if financial distress will be well managed by banks. BNR as a controller through business banks ought to guarantee that monetary misery factors that influence monetary execution are recognized and legitimate administration procedures set up to counter the impact of monetary pain on monetary execution. Business banks likewise assume a basic part in Rwanda's monetary area concerning credits and advances, reserve funds and managing in government protections.

Areas for Further Research

As this study focused on investigating the extent to which financial ratio analysis contributes to financial institutions' performance, a case of BK, the researcher only tackled the issues related to the subject matter. However a few areas for further research were identified and these include: The researchers could examine the impact of liquidity ratios analysis on financial investment in BK, assessing the role of financial statement analysis in enhancing the management of financial institutions and, last, the role of financial ratio analysis in enhancing the effective management of financial asset in BK.

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