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EFFECTS OF BANK SPECIFIC FACTORS ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN RWANDA: A CASE OF COMMERCIAL BANKS IN RWANDA

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Abstract: **Any banking institution main goal is to operate profitably in order to maintain stability and sustainable growth. Both external and internal economic environments are viewed as critical drivers for bank performance. The main purpose of this study was to determine the effects of bank specific factors on the financial performance of commercial banks in Rwanda for a period of 5 years, starting from the year 2012 to 2016. The study was guided by the following objectives; to evaluate the effects of asset quality on the financial performance of commercial banks in Rwanda, to determine the effects of capital adequacy on the financial performance of commercial banks in Rwanda, to determine the impact of management efficiency on the financial performance of commercial banks in Rwanda and to evaluate the effects of liquidity on the financial performance of commercial banks in Rwanda. Firm performance was measured using Return on Equity (ROE). This study adopted a descriptive research design in soliciting information on effects of liquidity management on financial performance of commercial banks. The target population was 14 commercial banks in Rwanda. The sampling technique that was employed is simple random sampling and the sample size was 56 respondents. Primary quantitative data was collected by use of self-administered structured questionnaires. The researcher also used secondary data derived from the audited financial statement of the commercial banks for the period 2012 to 2016. The data collected was analyzed, with respect to the study objectives, using both descriptive and inferential statistics. The data was analyzed using descriptive statistics such as mode, median, mean, standard deviation. Multiple regression analysis was employed to determine relationship between bank specific factors and financial performance of commercial banks in Rwanda. Data was presented in tables, charts, figures and mathematical expressions. The results showed that there was positive and significant association between ROA and all the independent factors. The results showed that there has been a significant decrease in capital adequacy during the five-year period. There was also a finding that asset quality affects profitability and the financial performance of banks. While holding the other factors constant a unit increase in asset quality while holding the other factors constant would lead to an increase in ROA of banks by a factor of 0.461. A unit increase in capital adequacy of the bank led to an increase of 0.354 in ROA. A unit change in management efficiency while holding the other factors constant would lead to an increase of 0.454 in ROA of the banks. A unit change in liquidity while holding the other factors constant would lead to an increase of 0.343 in ROA of the banks. The study concludes that Asset quality of the bank have the highest influence on ROA of banks. The study recommends that efficient and effective management should be adopted by bank managers to ensure that banks do not become insolvent.**

Keywords: **Asset quality, Financial performance, Commercial banks in Rwanda.**

1. INTRODUCTION

1.1 Background:

Globally banks play very important role in the economic development of nations as they largely wield control over the supply of money in circulation and are the main stimuli of economic progress (Malakolunthu & Rengasamy, 2012). Bank performance may be defined as the reflection of the way in which the resources of a bank are used in a form, which enables it to achieve its objectives. Furthermore, the term bank performance means the adoption of a set of indicators, which are indicative of the bank's status, and the extent of its ability to achieve the desired objectives (Malakolunthu & Rengasamy,2012).Some of the reasons why we evaluate the performance of banks are to determine their operational results and their overall financial condition, measure their asset quality, management quality, efficiency, and achievement of their objectives as well as ascertain their earning quality, liquidity, capital adequacy and level of bank services.

Haron (2004) identify bank internal factors as bank specific factors which can either be financial factors or non-financial factors. The financial statement variables relate to the decisions which directly involve items in the balance sheet and income statement, while non - financial statement variables are outside the financial statement. The financial statement indicators include; bank size, capital ratios, liquidity, asset quality, deposits, operational efficiency, risk management etc. The non - financial variables include; number of branches, employees, ATM, customers, age of the bank, ownership etc. The internal factors are generally believed to be within the control and influence of the management.

Dang (2011) explain that studies apply the CAMEL framework to measure bank specific factors which are within the scope of the banks to manipulate and they differ from bank to bank. These variables include bank capital, size of deposit liabilities, size and composition of credit portfolio, interest rate policy, labor productivity, state of information technology, risk level, management quality, bank size and bank ownership.

One way to measure bank performance is by determining the profitability of the bank. Profitability is the ability of a bank to make profits by earning more money that exceeds the yearly expenses and taxes every financial year. The Banks make profits from fees charged for their services and the interests levied on assets. On the other hand, the main expense incurred by banks is in the interest paid on their liabilities every financial year. A positive difference between the earnings and the expenses represents the profitability of any financial institution. The bank's assets that attract revenue to the institution include loans to individuals, companies, and other institutions and securities the bank holds. The principal liabilities for the banks include deposits and the funds borrowed from other banks or through selling of commercial paper in the money market. The measure of profitability of a bank is determined by the return of assets (ROA) and the return on equity (ROE). The assets such as the loans and securities are utilized by the banks to earn a large portion of the institution's income. The ROA is determined by dividing the bank's net interest income by average total assets. The ROA is expressed as a percentage. The net interest income is determined by obtaining the difference between the interest received on assets and interest paid on liabilities.

Capital adequacy represents the level of capital required by a commercial bank to allow them to endure the risks such as credit, market and operational risks they are prone to in order to absorb the potential losses and protect the organization's debtors.

Capital is one of the major bank specific factors that have a direct impact on the level of bank profitability. Capital represents the amount of own finances available to support a commercial bank's business. A bank's capital acts as a buffer in cases where adverse situations occur within the institution. Additionally, capital establishes liquidity for a commercial bank because the deposits are more fragile and prone to bank runs. Good levels of capital minimize the chances of distress within a banking institution. Capital adequacy is measured based on the capital adequacy ratio (CAR) (Nyanga, 2012).The minimum accepted CAR is 8%. A higher ratio indicates that the bank is at a higher risk of insolvency from excessive losses. A lower value of CAR shows that a bank is under the minimum threshold and possesses a higher ability to deal with the risk of insolvency (Mulualem, 2015).

Asset quality represents a measure of the likelihood of default on a loan combined with a measure of its marketability. Thus, asset quality is the measure of the price at which a bank would sell a loan to a third party as determined by the borrower. The bank assets constitute of fixed and current assets, credit portfolio among other investments. Loans comprise of the largest portion of a bank's assets and constitute the greatest amount of risk to their capital (Nyanga, 2012). Real estates, other assets, off-balance sheet items, cash due from accounts and premises constitute other items that have a possible impact on asset quality. The BNR measures asset quality by the ratio of net non-performing loans to gross loans. A higher ratio indicates poor asset quality.

The study of efficiency of financial institutions is enhanced by investigating environmental variables that are likely to influence efficiency. This involves a two-stage estimation procedure where efficiency scores are estimated in the first stage, and the resulting efficiency estimates are regressed on some environmental variables in a second stage.

The term "environmental variables" is usually used to describe factors, which could influence the efficiency of a firm (Sufian, 2009). According to Sharma, Sharma, and Barua (2013), these determining factors are categorized into three categories: (1) 5 bank (firm) specific variables; (2) macro-economic variables; and (3) regulatory variables. Arora (2014) agrees arguing that the reasons for efficiency differences (among banks) may be attributed to two types of forces, namely (a) external macro-economic forces influencing all banks and (b) internal bank-specific forces.

Most studies on efficiency have concentrated on commercial banks hence the term "bank characteristics" is widely used instead of "firm characteristics". Firm characteristics refer to the aspects of a firm that are affected by firm-level management. Arora (2014) argues that while differences in efficiency across banks may be due to forces internal to the banks itself such as objectives, bank conduct, size, ownership styles and managerial capabilities of banks; it may not be possible to account for all bank-specific determinants due to measurement challenges. For this reason, the current study narrowed to those characteristics that are observable from the financial statements.

Management efficiency is the ability of the board of directors and management to identify measure, control the risks of a banking institution's operations, and guarantee the safe and effective operation in fulfillment of pertinent laws and regulations. The management efficiency of a bank is measured using different financial ratios such as total asset growth, loan growth rate, and earnings growth rate. The performance of management is also often shown by subjective assessment of management systems, organizational discipline, control systems, and quality of staff among other factors (Ongore & Kusa, 2013). Additionally, the ability of the management to utilize its resources effectively, maximize income, minimize operation costs can be measured by financial ratios. Operating profit to income ratio is particularly useful in measuring management quality. The higher the operating profits to total income, the more efficiently the management is in relation to operational efficiency and income generation. Management efficiency significantly determines the level of operating expenses and in turn has an impact on the bank's profitability (Ongore & Kusa, 2013).

According to Athanasoglou et al., (2008), firm characteristics, also referred to as internal or micro factors, are those that originate from the financial statements such as income statements and/or statement of financial position. Given that firm characteristics reported in financial statements are largely controllable by the firm level management, much attention is accorded to them by researchers. Empirical evidence of strong significant relationship between firm characteristics and financial intermediation efficiency will lead to increased managerial attention in a bid to improve efficiency. This study focused on capital adequacy, asset quality, liquidity, and management efficiency.

1.2 Statement of the Problem:

Rwanda's vision 2050 envisages creating a vibrant and globally competitive financial sector, driving high levels of savings and financing Rwanda's investment needs. This is achievable only if the financial sector is more efficient (Nasieku, 2014).By enhancing unlimited bank specific factors, financial institutions are capable of offering more affordable banking services. Bank specific factors of financial institution should constantly be assessed and maintained at the highest possible levels. Understanding the bank specific factors and their influence in bank profitability and performance is crucial to the management of commercial banks, stakeholders and other interest groups such as the central bank and the government.

Research studies conducted to assess the internal aspects that determine the profitability and financial performance of commercial banks have revealed several internal bank specific factors, external and industry specific factors. The bank specific factors are particular to a given institution, thus the internal factors that determine profitability in one bank are different from other banking institution in Rwanda.

A review in literature indicates that several research studies done on local and international arena concentrated on specific factors. According to a research done by Obamuyi (2013), the determinants of bank's profitability in developing economies, with a particular interest in Nigeria showed that bank specific factors such as efficient management of expenses and increased interest income affects profitability. Additionally, the same research indicated that macro environment factors such as favorable economic conditions also result in increased profitability of commercial banks. This study ignored the industry specific factors. A study by Mucheru *et, al.* (2017) determined the effects of liquidity management on the performance of commercial banks in Rwanda. Ongore and Kusa (2013), concentrated on factors influencing banking sector performance in Rwanda. The researcher found out that board, management decisions influence

the performance of commercial banks in Rwanda, and that macro-economic factors have minimal impact on the banks performance. However, the research omitted the impact of industry specific factors on the performance of banks in the country. Available literature has not exclusively concentrated on identifying the bank specific factors that influence bank's profitability in developing countries and with particular focus on Rwanda. It is clear that in Rwanda, there is limited literature on the bank specific factors and ways in which they determine bank profitability. This study sought to fill this gap.

1.3 Objectives of the study:

1.3.1 General objective:

The general objective of this study was to determine the effects of bank specific factors on the financial performance of commercial banks in Rwanda.

1.3.2 Specific objectives:

The specific objectives were:

1. To evaluate the effects of asset quality on financial performance of commercial banks in Rwanda.
2. To determine the effects of capital adequacy on financial performance of commercial banks in Rwanda.
3. To determine the impact of management efficiency on financial performance of commercial banks in Rwanda.
4. To evaluate the effects of liquidity on financial performance of commercial banks in Rwanda.

2. CONCEPTUAL FRAMEWORK

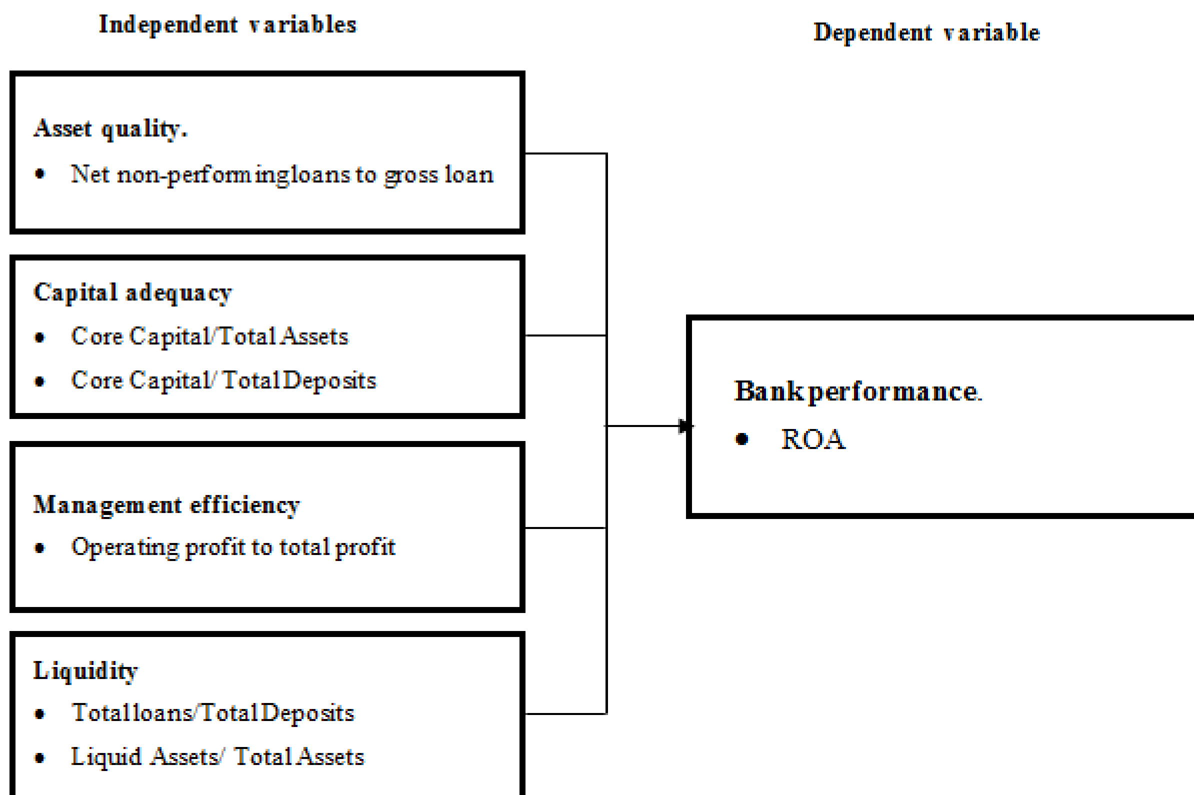

Figure 2.1: Conceptual framework

3. TARGET POPULATION

The target population for this research comprised of 56 managers from the fourteen commercial banks licensed by National Bank of Rwanda (BNR) as listed in appendix II. From each bank four top managers were selected. This is because they are the only people in the bank allowed to provide copies of the annual reports of their respective banks. These included the managing director, finance manager, operations manager and credit manager. Therefore, the target population was 56 managers. Census approach was applied in this study

4. RESEARCH FINDINGS AND DISCUSSION

In order to answer the proposed model for the relationship between performance and the independent variables, the regression coefficients were calculated and presented in table 4.9 below. These with their significance values (also given in the table) measures the effect of each independent variable on performance (dependent variable) and the effect that would occur to performance in an attempt to changing (increasing/decreasing) these variables.

Table 4.1: Regression analysis showing the combined effect

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.425	.050		1.887	.061
	Asset quality	.461	.036	.062	1.923	.001
	Capital adequacy	.354	.040	.850	20.790	.000
	Management efficiency	.454	.034	.079	2.449	.015
	Liquidity	.343	.026	.010	.363	.020
a. Dependent Variable: Financial performance of commercial banks in Rwanda						

Using linear regression analysis from SPSS data bases, the effects of bank specific factors were regressed to find out how they impacted on financial performance of commercial banks in Rwanda = $0.425 + 0.461X_1 + 0.354X_2 + 0.454X_3 + 0343X_4$

From the regression model obtained above, Constant = 0.425, shows that if all the independent variables (capital adequacy, asset quality, management efficiency, and liquidity) all rated as zero, ROA would rate 0.425. While holding the other factors constant a unit increase in asset quality while holding the other factors constant would lead to an increase in ROA of banks by a factor of 0.461. A unit increase in capital adequacy of the bank led to an increase of 0.354 in ROA. A unit change in management efficiency while holding the other factors constant would lead to an increase of 0.454 in ROA of the banks. A unit change in liquidity while holding the other factors constant would lead to an increase of 0.343 in ROA of the banks. This implied that asset quality had the highest influence on ROA of banks (p - value .001). The analysis was undertaken at 5% significance level. The criteria for comparing whether the predictor variables were significant in the model was through comparing the obtained probability value and $\alpha = 0.05$. If the probability value was less than α, then the predictor variable was significant otherwise it wasn't. All the predictor variables were significant in the model as their probability values were less than $\alpha = 0.05$.

5. CONCLUSIONS

The study concludes that liquidity has a positive and significant association with financial performance of commercial banks. The study found that an increase in liquidity would lead to a significant increase in financial performance of commercial banks in Rwanda. From the regression model obtained, all the independent variables (capital adequacy, asset quality, management efficiency, earnings' ability, liquidity) all rated as zero, ROA would rate at 0.425. Therefore, it can be concluded that only 42.5% of ROA variation in banks can be explained by capital adequacy, asset quality, management efficiency, earnings' ability and liquidity. Based on the findings it can be concluded that the Asset quality of the bank had the highest influence on ROA of banks.

5.1 Recommendations:

From the findings increase in asset quality causes a significant increase in bank performance the study therefore recommends that banks keep their amount of nonperforming loans to low levels since such loans affect the profitability of the banks and in turn affect financial performance of the banks. From the findings increase in management efficiency causes a significant increase on financial performance of commercial banks, the study therefore recommends that efficient and effective management should be adopted by bank managers to ensure that banks do not become insolvent.

From the findings and conclusions an increase in capital adequacy leads to a significant increase in bank's financial performance therefore the study recommends that bank capitalization should be encouraged in all commercial banks and other financial institutions so that performance can be enhanced. Institutions should strive to retain earnings to boost up capital rather than paying inflated bonuses. Well capitalized institutions have lower financial risk and thus are more likely to survive financial crisis thus, a well-capitalized banking system will ensure financial stability and make the industry more resilient against external shocks and risk.

From the findings increase in liquidity causes a significant increase in bank performance the study therefore recommends that banks continue to keep the recommended liquidity levels to be able to meet customer demand for their deposits to avoid bank runs and panic in the market. Since banks are less profitable when less liquid, bank managers should be encouraged to invest in more liquid assets. This will not only improve bank profitability, but it will also enable banks meet their short-term obligations as they fall due. It is possible that liquid bank assets are more profitable due of some market inefficiency. Further empirical study will be required to establish this.

5.2 Areas for further research:

Despite the overall findings procedure in this study, there are still open opportunities for further studies. Similar studies should be conducted on:

From the findings 42.5 % of the variation in banks performance can be explained by the independent variables in the study therefore the study recommends that further studies be conducted to determine the effect of economic factors that affect bank performance. The study therefore suggests a similar study should be carried in micro finance institutions and Saccos in Rwanda. Further studies should also be done and focus on the factors independently to cover more grounds, for example, effect of asset quality on financial performance of commercial banks in Rwanda. In future research work also, it might be useful to understand the factors that impact on effectiveness of monetary policy of the National Bank of Rwanda since money supply significantly and negatively relate to bank profitability. This is because the National Bank of Rwanda can have the right policy objectives but certain prevailing factors in the industry can be an impediment to the realization of these objectives.

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