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Effects of Prudential Regulations on Financial Performance of Commercial Banks in Rwanda: A Case of Bank of Kigali

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Abstract: ***The special role that banks play in the economic system implies that banks should be regulated and supervised not only to protect investors and consumers but also to ensure systems stability. 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. This study sought to examine the effect of prudential regulations on Financial Performance of Commercial Banks in Rwanda. To achieve this, the study examined the effect of capital requirements on the financial performance of Commercial Banks in Rwanda, established the effect of liquidity requirements on the financial performance of Banks in Rwanda, determined the effect of assets quality on the financial performance of Banks in Rwanda, examined the effect of risk management on the financial performance of Banks in Rwanda. The study adopted a descriptive research design. The target population of this study comprised of 95 managers of Bank of Kigali. A sample size of 77 respondents was determined from a total population of 95 individuals using the formula by Yamane. A descriptive research design was adopted due to its ability to describe the relationship between elements of prudential regulations and Financial Performance. Stratified random sampling technique was used to select the managers. Primary data was collected using a structured questionnaire. The data was analyzed using SPSS for Descriptive statistics to test the impact of prudential regulations and Correlation analysis was used to determine the nature and magnitude of the relationship among prudential regulations variables, and regression analysis. The regression results revealed that there is a positive relationship between prudential regulations and financial performance of commercial banks in Rwanda. The coefficient of determination proved that the independent variables contributed to 75.8% of the variation in financial performance as explained by adjusted R^2 of 0.758%, which shows that the model was a good predictor. The study findings also revealed that the banking sector enjoys a strong financial performance partly because of implementing and maintaining effective prudential regulations as imposed by the BNR. The study recommends that banks should effectively implement prudential regulations due to the nature of the riskiness of the banking sector and its impact on financial performance***

Keywords: Prudential regulations, financial performance, commercial banks

1. Introduction

In the last two decades of the 20th century, countries worldwide have had to face an unprecedented number of commercial bank failures. As a result, attention is turning to the need for more appropriate ways to improve the performance of national financial systems. Indeed, a substantial literature is already emerging on the causes and consequences of financial-mostly banking-crises, and on various reforms that might help prevent future crises. Although the proposed reforms differ in important respects, nearly all include changes in existing financial regulations and supervisory standards. This core of agreement is certainly understandable insofar as the financial crises in countries ranging from the United States and Japan to Korea and Mexico, to Chile and Thailand, to India and Russia, and to Ghana and Hungary have been blamed at least in part on "bad" regulation and supervision (Barth et al. 2006).

The special role that banks play in the economic system implies that banks should be regulated and supervised not only to protect investors and consumers but also to ensure systems stability.

More specifically, bank regulations exist for safeguarding the industry against systemic risk, protecting consumers from excessive prices or opportunistic behavior and finally to achieve some social objectives, including stability (Llewellyn, 1999). While weakness of the banking sector, of course, is not the only element that generates vulnerability to economic crisis, banking regulation and supervision emerges as a major component of vulnerability to crisis. It is argued that as capital account liberalization intensifies capital mobility, this imposes a greater burden on a country to assure that its financial system is well supervised and regulated (Dornbusch, 1998:20). It is asserted that strong banking systems can better handle reversals incapital flows, while weak and inefficient banking systems are less able to cope with volatile capital flows, therefore, are more vulnerable to contagion (Johnston, 1998:5; Johnston et al., 1997:7). This means that they are more likely to propagate and magnify the effects of financial crises on other economies. Furthermore, it is claimed that concerns about banking solvency or inadequate regulatory frameworks may encourage capital flight.

2. Statement of the Problem

Despite the fact that prudential regulations have been in place to help the National Bank of Rwanda (BNR) regulates commercial banks, the problem of capital and liquidity requirements as well as increase in non-performing loans have continued to be on the increase. The financial sector is one of the most heavily regulated sectors in the economy and banking is by far the most heavily regulated industry. Bank regulation typically refers to the rules that govern the behavior of banks, whereas supervision is the oversight that takes place to ensure that banks comply with those rules.

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The issue of financial regulation particularly in relation to the banking sector is often considered a controversial issue. Regulation is costly and can give rise to moral hazard problems. In addition, distortions between regulated and unregulated institutions can occur (Barth et al., 2006).

Barth et al. (2004) find that increasing the level of restrictions move together with crises.

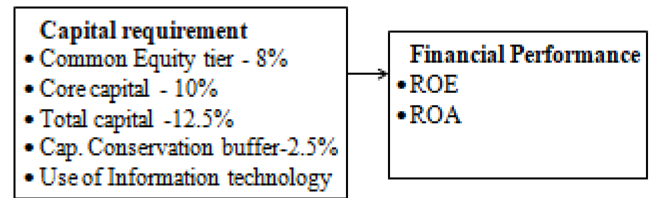
Similarly, more restriction comes with lower level of bank development. However, they do not provide a clear-cut explanation on the nature of relationship. While, we expect that regulators are ill equipped with crises for a number of reasons, the direction of causality requires more work. It is our expectation that causality works both ways. Powerful regulators may not correctly find problems and cures for them. On the other hand, expected crises provide more reasons to control. Barth et al., (2004) do not find a strong association between bank development and performance and official supervisory power, including the quality of regulatory power. This is understandable, because the stability of the rules of the game is more important than behaviors of players. In this vein, they find a positive relationship between supervisory tenure and bank performance, which reflects the effect of regulatory commitment on the industry.

Most of the studies done on the relationship between banks regulation and bank performance of commercial banks have been conducted in the developed countries. Banks in Rwanda are required to adhere to regulations set by Central bank of Rwanda. The management has to present the capital adequacy return reports, liquidity statement reports, Statement of financial of financial position and statement of deposit return as well as return on investment, which compares financial assets to the bank's total assets and its core capital. Despite the role played by the central bank of Rwanda, only one research has been carried out by Vianney (2013) to establish the relationship between regulations and financial performance of commercial banks in Rwanda. However, as the banking sector has been developing every day with new entrants in the market, it is necessary to evaluate whether there is still no relationships as concluded by Vianney (2013). It is on the basis of this gap that the present study will wish to establish the contribution of prudential regulations on the financial performance of commercial banks in Rwanda.

3. Objectives of the Study

The general objective of this study was to examine the effect of prudential regulations on financial performance of Commercial Banks in Rwanda. One of its specific objectives was to examine the effect of capital requirement on the financial performance of Commercial Banks in Rwanda.

4. Conceptual Framework



5. Research Methodology

- **Research Design**: The studyadopted a case study survey
- **Target Population**: The target population of this study comprised of 95 managers of Bank of Kigali
- **Sample Size:**A sample size of 77 respondents was determined from a total population of 95 individuals using the formula by Yamane (1967).
- **Data Collection Instruments:**Primary data obtained were from the structured questionnaire given to the personnel in Senior & Middle level management and the operations Department because they make decisions and implement regulations imposed on the bank.

6. Summary of Research Findings

Table 1: Capital requirements and financial performance

Statements	Mean	Std. Dev
Our Bank closely monitors the compliance to capital requirements as imposed.	4.20	1.123
Our Bank provides direction to staff in charge about the computation of core capital-10%.	3.98	1.012
Our Bank provides direction to staff in charge about the computation of common equity tier-8%.	4.24	1.067
Our Bank provides direction to staff in charge about the computation of total capital-12.5%.	4.34	.938
Our Bank provides direction to staff in charge about the computation of capital conservation buffer-2.5%, conservation	4.10	1.114
Our Bank has a code of conduct to guide behavior, activities and decision- making.	4.27	.949
Our Bank has a strong accounting and financial systems necessary to monitor its financial performance.	4.44	.867
The Board of Directors and its Committee are independent of Management.	4.27	1.073
The Board, the Management and Employees are all committed to improve the financial performance of the Bank.	3.83	1.202
Roles and responsibilities are clearly stated for employees	4.32	.820

On respondent's level of agreement with the above statements relating to effect of capital requirements on the performance of commercial bank from the findings, majority of the respondents agreed that: BK as an institution closely monitors compliance to capital requirements as imposed by the regulator and it is shown by (M=4.20, S.D=1.123); it provides direction to its staff on the computation of core capital-10%, common equity tier-8%, total capital-12.5% and capital conservation buffer 2.5% as imposed by the regulator, this is shown by (M= 3.98, 4.24, 4.34,4.10 ; S.D= 1.012, 1.067, .938,1.114 respectively); respondents agree that the bank has well defined code of conduct to guide

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behavior, activities and decision making, they also confirmed the existence of strong accounting and financial systems necessary to monitor its financial performance (M= 4.27, 4.44; S.D= .949, .867 respectively); the bank has an independent Board of directors and its committee independent from management shown by (M= 4.27; SD= 1.073); the Board, Management and employees are committed to improve the financial performance of the bank by following the requirements imposed on them by the regulator especially on capital, the roles and responsibilities of each on the above are also clearly stated (M= 3.83, 4.32; SD= 1.202, .820). The study concluded that most Bank of Kigali especially large implemented capital requirements regulation as imposed by the BNR through established policies and procedures.

Table 2: Correlation between Capital requirements and financial performance

		Capital requirements	Financial performance
Capital requirements	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	70	
Financial performance	Pearson Correlation	.498**	1
	Sig. (2-tailed)	.000	
	N	70	70
**. Correlation is significant at the 0.01 level (2-tailed).			

Table2 indicates that capital requirements is significantly correlated to Financial performance (r=0.498, p<0.01). This implies that the ensuring compliance to capital requirements as imposed by The BNR would result to increased financial performance of the bank. Peters and Waterman (1982) argues that organizational culture has a critical role in market expansion of any business.

Table 3: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.947[a]	.906	.758	.250
Predictors: (Constant), Capital requirements, liquidity requirements, Assets Quality and Risk Assessment.				

In order to explain the percentage of variation in the dependent variable, financial performance, as explained by the independent variables, the researcher used coefficient of determination that was obtained from the model summary. Coefficient of determination was used to explain whether the model is a good predictor. From the results of the analysis, the findings show that the independent variables (Capital requirements, liquidity requirements, Assets Quality and Risk Assessment) contributed to 75.8% of the variation in financial performance as explained by adjusted R^2 of 0.758% which shows that the model is a good prediction.

Table 4: ANOVA results showing the combined effect ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.117	5	0.4234	4.888	.000[a]
	Residual	1.213	14	0.0866		
	Total	5.24	19			
b. Independent Variable: Capital requirements, Liquidity requirements, Assets quality and Risk Assessment						
c. Predictors: (Constant), Financial performance						

The results of the findings above revealed that the level of significance was .001(a) this implies that the regression model is significant in predicting the relationship between prudential regulations and financial performance. By the help of an F-test table, the tabulated value for F (5%, 5, 14) is 2.96 which was less than 4.888 meaning that the model was statistically significant.

Table 5: Coefficient results showing the combined effect of the Coefficients (a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	**Std. Error**	**Beta**	**t**	**sig**
1	(Constant)	0.098	2.163		5.331	0.00
	Capital requirements	.483	.395	.612	1.211	0.04
	Liquidity requirements	.101	.2005	.328	8.15	0.01
	Assets quality	-.338	1.001	-.961	.976	0.03
	Risk Assessment	.213	.1331	.637	1.609	0.06
	Dependent variable; International market expansion					

From the above Table5, the researcher sought to establish the extent to which prudential regulations effects on financial performance of commercial banks in Rwanda. The following regression equation was obtained:

$ROE= 0.098+0.483X_1+0.101X_2- 0.338X_3 +0.213X_4$

From the above regression model holding all the other factors constant, financial performance is measured by the efficiency and effective implementation of prudential regulations. The results of the multiple regression model show that there is a positive relationship between prudential regulations and financial performance of commercial banks in Rwanda. This implies that a single unit increase in any of the independent variables results into a corresponding increase in financial performance of commercial banks in Rwanda.

The regression analysis was undertaken at 5% significance level. The criteria for comparing whether the predictor variables were significant in the model was through comparing the corresponding probability value obtained and α=0.05. If the probability value was less than α, then the predictor variable was significant but from the above analysis. The results above shows that the variables were significant since their corresponding predictor values were below 5% apart from assets quality which had 6% meaning that an inverse relationship existed between prudential regulations and financial performance of commercial banks in Rwanda.

7. Conclusions and Recommendations

7.1 Conclusions

From the findings of the study, it was concluded that Bank of Kigali that had implemented and complied with prudential regulations requirements had more improved financial performance.

From the findings, it was revealed that Bank of Kigali observed monitoring compliance to capital requirement including providing direction to its staff on how to compute

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core capital, common equity tier, total capital and capital conservation buffer and this affected the recorded high financial performance of the Bank. It was also found that liquidity requirements, assets quality especially monitoring of loans to keep NPLs at an acceptable lower level and risks assessment had a better impact on the performance of Bnak of Kigali from 2013 to 2016 as per the findings.

From the regression analysis there was a significant positive relationship between prudential regulations and Financial Performance of Commercial Banks in Rwanda and poor implementation of regulations imposed by BNR results in negative financial performance. In a nutshell the banking sector in Rwanda enjoys a strong financial performance partly as a result of implementing and complying with effective legal and regulatory requirements including prudential regulations. The presence of the National Bank of Rwanda as a regulator helped the sector to develop so quickly in the past years and this has created a good environment for many investors who joined the field in few years ago.

7.2 Recommendations

Basing on the study findings, the study recommends that;
The study recommended that the banks should effectively implement and comply with prudential regulations imposed by the regulator due to the nature of the riskiness of the banking sector and its impact on the economic growth of the Country. The banks must have an independent Board of Directors and its committee as a Corporate Governance regulatory requirements as well as a strong management team to help in the implementation of regulations imposed by the BNR.

The National Bank of Rwanda should monitor and supervise Commercial Banks in Rwanda to ensure financial reporting, legal and regulatory requirements are met by the banks and transparent periodic reporting to stakeholders on Corporate Governance, Risk Management and Internal Controls is undertaken.

It is recommended that banks comply fully with the stipulated regulations and the BNR must ensure that all banks comply. This will have the effect of ensuring a stable banking sector that plays a big role in the economy. If this sector is stable, the economy will thrive and financial crisis will be avoided in the country. Implementing strict regulations will also enable the regulator to discover banks that are struggling and provide remedial measures before they collapse and depositors lose their money.

7.3 Areas for further research

The period of time used which is 2013 to 2016 in my opinion is not sufficient for such a study and I would recommend for a similar study to be conducted in future that covers more years. This might yield more objective results. I also recommend a study to be carried out that factors in macro-economic factors that can give information on the impact those factors have on the financial performance of commercial banks in Rwanda. This would yield more objective results on the true impact of prudential regulations on financial performance of banks.

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