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Internal Control System and Performance of Financial Institutions in Rwanda: A Case of Bank of Kigali in Nyarugenge District

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Abstract

The general objective of the study was to analyze the effects of internal control system on financial performance in Bank of Kigali. In methodology, descriptive research design was used to accumulate quantitative and qualitative information. The target populations of 398 BK personnel of headquarter where 191 respondents were selected by the formula of Krejcie and Morgan (1970). The data collection instrument such as questionnaires was used to accumulate information from the field. After processing the data, the last closing end result summarized in the structure of statistical tables such as descriptive statistical tables, regression tables and correlation analyzes for the use of the SPSS version 21.0 and the researcher gave an interpretation of the results. The study findings have proved a positive and significant relationship internal control system and financial performance because all calculated p-values are less than 0.01 significance level for instance the relationship between risk assessment and return on asset with p=.962 and sig=.000, between risk assessment and return on investment with p=.872 and sig=.000, between control activities and monitoring of operation with p=.917 and sig=.000, between control activities and return on equity with p=.937 and sig=.000, between control activities and return on asset with p=900 and sig=.000, between monitoring of operations and return on investment with p= 877 and sig=.000, between return on asset and return on investment with p=.889 and sig=.000, between return on asset and return on equity with p=.922 and sig=.000. Thus, implies that internal control system has an impact on financial performance in Bank of Kigali. Basing on the findings the research recommends BK to tackle all factors of internal control system in order to gather the information to enhance financial performance of Bank of Kigali.

Keywords: *Internal control system, Performance, financial institutions, Bank of Kigali, Rwanda*

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1. Introduction

The past decades have seen dramatic losses of 14.3% in the banking industry around the world (Soriano, 2014); firms that had been performing well suddenly experienced large losses due to credit exposures that turned sour, interest rate positions taken, or derivative exposures that may or may not have been assumed to hedge balance sheet risk and this also was due to lack of strong internal control system (Niyonsenga & Abuya, 2017). Researches shown that most of the financial institutions set up internal control systems as regulatory requirements and it also helps to make sure that all management activities are appropriately carried out, but in Africa though internal control systems are well set the performance of financial institutions remains a myth (Kunz & Heitz, 2022). To ensure financial performance, the financial institutions have to make internal control system a point of duty to train, educate, and sensitize their employees on how to use these internal control systems since its effectiveness depends on the competency and dependability of the people using it. All these control actions are in place to make sure that all risks that may arise against the institutional ability and profile to achieve its goals are completely avoided and should occur at all levels and in all functions of the organizations but if not well practiced it leads to poor financial performance (Niyonsenga & Abuya, 2017).

Financial institutions in Rwanda have incurred 8.7% of loss due to mismanagement of credit risks that led to limitations in internal control regulation and redesign of a new regulatory framework (BNR, 2017). In response to this, financial institutions have almost universally embarked upon an upgrading of their risk management and control systems (BNR, 2017). Though, there are such challenges in Rwandan financial institutions, there is a gap of knowledge due to lack of empirical literatures on internal control system in financial institutions in Rwanda.

Bank of Kigali experienced issues of credit risk mismanagement and failures to meet income target level due to ineffective and poor internal control systems which in advance weakened the rise of profitability by 4.5% if well regulated and making provisions for specific risk proactively which led to low return on equity by 1.7%, low return on asset by 2.0% and low return on investment by 0.5%. However, last improved were made in internal control through adequate management of credit risk and compliance of the employees on meeting the income target made Bank of Kigali to increase its profit from 34.6 billion of 2017 to 42.6 billion in 2018 (BK, 2018). Internal control system is a very important tool for credit risk management as stated by Karusisi (2018). Hence, the need to focus this study on investigating the effect of internal controls system on financial performance of financial institutions in Rwanda with a case study of Bank of Kigali.

1.1 Objectives of the study

1.1.1 General objective

The general objective of this study was to examine the effect of internal control system on performance of financial institutions in Rwanda.

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1.1.2 Specific Objectives

The specific objectives are the following.

(i) To examine the effect of risk assessment on financial performance of Bank of Kigali.
(ii) To assess the effects of control activities on financial performance of Bank of Kigali.
(iii) To find out the relationship between monitoring of operations and financial performance of Bank of Kigali.

2.1 Empirical Literature Review

Muhunyo and Jagongo (2018) investigated the impact of internal control systems on the financial performance of financial institutions in Namibia. The findings proved that there was a relationship between control activities and financial performance which was equal to .292 and the p-value was .013 which was also less than 0.01 level of significance, hence it means that there was a significant positive correction of 29.2 between control activities and financial performance of financial institutions in Namibia. Olumbe (2012) carried out a study to establish the relationship between internal control and corporate governance in financial institutions of turkey. His findings reveled that there is a relationship between control environment and corporate governance in financial institutions has significant and positive relations (b= .952and p=.000). The findings also proved that there is a relationship between monitoring financial operations and corporate governance has a positive and significant relationship (b=.654 and p= .000). The findings indicated also that there is a relationship between information and communication and corporate governance has positively significant relationship (b=.538 and p=.000). Nwobodo, *et al.,* (2020) conducted a study in Nigeria on the effect of bank internal control system on nonfinancial performance of selected quoted deposit money bank in Nigeria. This research was categorized controls into three major classifications: Preventive controls, detective controls and corrective controls. The results revealed there is positive correlation between preventive controls and corrective (p=.768 and sig=.000), detective controls and corrective controls (p=.923 and sig=.000), preventive controls and detective controls (p=.775 and sig=.000).

Tumwebaze, *et al.,* (2022) conducted a study on audit committee effectiveness, internal audit function and sustainability reporting practices in Uganda with a case of Centenary Bank. The results revealed that the R coefficient of .932 shows that predictors have a significant positive relationship with return on equity. The coefficient of determination .868 R square reveals that the predictors explain 86.8% of variability in return on equity. Thus, based on findings indicators of internal control systems and other measure such as constant, return on equity, income generation and long term investment contribute to 86.8 % progress in Centenary Bank. However, Douglas (2011) discovered internal control has little relation with financial performance as indicated by his findings, there is little relationship between increased assets quality ratios as one among other measures of internal control and long term investment as measure of financial performance which is equal to .112 and p –value is .049 which is less than significance level of 0.05 and hence high and positive correlation of 11.2%. Hence, the study indicates the relevancy of studying the effect of internal control systems on financial performance of financial institutions in Rwanda with a case study of Bank of Kigali.

2.2 Research Gap

Based on different researches conducted by Muhunyo & Jagongo, 2018 and Olumbe (2012) who considered all five components (control environment, control activities, risk assessment, information and communication and monitoring) of effective internal control systems that can influence financial performance or success of different organizations depending on the

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case study of the above mentioned scholars. However, the mentioned studies have never given much attention return on equity, return on asset and return on investment as the best factors that can affect financial performance of financial institutions. Another gap is widely revealed on the studies such as Tumwebaze, *et al.*, (2022) who appreciate that internal control systems are the formal, information-based routines and procedures managers that ensure that errors and fraud are detected, safe guard company's assets and opine that ICS greatly influences firm performance. However, these researchers have given less attention the contribution of risk assessment, control activities and monitoring in increasing the return on equity, return on asset and return on investment as to ensure financial performance.

Nwobodo, *et al.*, (2020) asserted that internal control systems have different impacts on organization performance. The discussed interactive use of internal control systems and their experimental findings indicated that interactive use of internal control systems can alleviate disruptive performance when a company is changing its strategies. However, he has not indicated how after change the strategy the internal controls should affect the Return on equity of the company to ensure financial performance. The findings indicated that different strategies need different interactive use of management controls to raise firm performance but he has never fully indicated how financial performance as driving force of performance would be achieved. It is in this regard the researcher wants to base this study on the risk assessment, control activities and monitoring as internal control systems to ensure increase in return on equity, return on asset and return on investment to enhance financial performance of financial institutions in Rwanda.

2.3 Conceptual Framework

A conceptual framework refers to analytical tool that captures and explains the real relationship between variables in the study through providing the overall picture of how the linkage between the independent, dependent and intervening variables are related to each other by making conceptual distinctions and organize ideas. To refer to this explanatory graph here below that constitute internal control system as independent variable, financial performance as dependent variable while the intervening variables which can falsify information in financial performance if not controlled are the human resource capability in terms of knowledge and skills; and leadership style and innovation.

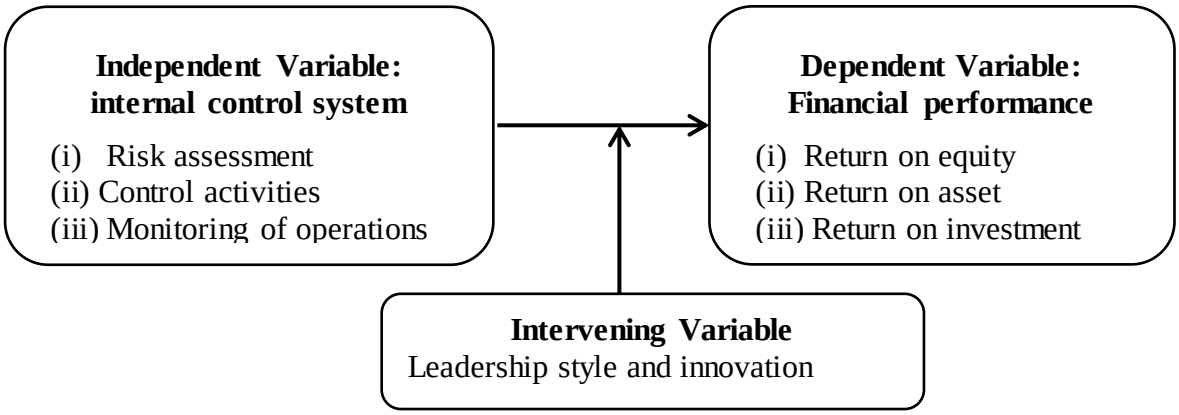

Figure 1: Conceptual Framework
Source: Researcher, 2022

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Figure 1 reveals the relationship between internal control system as independent variable and it is measured in terms of risk assessment, control activities and monitoring; financial performance as a dependent variable and it is also measured in terms of return on equity, return on assets and return on investment. Whereas other factors such as leadership style and innovation are considered as intervening variables that can cause change in financial performance if not control. The figure 1 further indicates that the measures of internal control system are related to financial performance whereby risk assessment impact financial performance through reducing the rate of fraud and errors, control activities affect also financial performance through appropriate regulations and policies that govern the business and monitoring operations affects financial performance through appropriate accounting records and timely preparation of reliable financial information.

3. Materials and Methods

The According to Gorard (2010) research design encompasses the method and procedures employed to conduct scientific research. This study used a descriptive research design with a mixed approach of quantitative and quality research design because the research was based on qualitative and quantitative data to analyze how internal control system contributed on financial performance of financial institutions. The mixed approach method was used at the time of data collection and specifically it helped the researcher to identify the link existing between internal control system and financial performance. Eyisi, (2016), defined a population is the group of all items of interest to a statistics practitioner. The population target under this study was the employees of Bank of Kigali who are 398 at headquarters.

Kombo and Tromp (2011) define a population as a group of individuals, objects or items from which samples are taken for measurement. The target population used the employees in accounting, finance, administration, security, cleaning and operation departments in Bank of Kigali. Therefore, the sample size was determined using Krejcie and Morgan (1970) on target population of 398 employees of Bank of Kigali, the researcher used purposive sampling as a techniques of sampling in order to have 191 respondents. In this study, the researcher used random sampling as sampling technique to select 191 respondents from 398 employees of Bank of Kigali; this technique enabled the researcher to acquire the required data from respondents. During this study, the researcher used questionnaire to 174 respondents and interview guide to 17 interviewees to collect primary data while the secondary data was collected through annual report of Bank of Kigali, which comprised the financial statements to find its financial performance.

The descriptive statistics were analyzed through the use of mean, standard deviation, frequency and percentages; and respondents were asked to indicate their response to each statement by checking one of categories of agreement or disagreement using a four to five-point scale. The SPSS helped to summarize the coded data and this facilitated quick interpretation of the results. The response to various statements were scored in such a way that an indicative response from the most favorable to the least favorable, strong agreement to strong disagreement is given and interpreted in line with research objectives. The inferential statistics were analyzed by the use of Pearson correlation to demonstrate the relationship between internal control system and financial performance while the multiple linear regression analysis were also used through $Y=\beta_0+\beta_1X_1+\beta_2X_2+\beta_3X_3+\varepsilon$ where Y represent financial performance, β_0 represents the constant coefficient of determination, β_1, β_2, and β_3 are coefficients of determination; and X_1, X_2, and X_3 are components of internal control system such as risk assessment, control activities and monitoring of operations respectively.

For, qualitative data were analyzed using content analysis to make the narrative within the research project. While for secondary data, the researcher have used document analysis to analysis the annual reports of Bank of Kigali and prove financial performance of the bank.

4. Research Findings

4.2.1 Risk assessment and financial performance of Bank of Kigali

The results of the study under this objective of the study are based on perceptions concerning audit committee documents oversights including risk of override of controls by internal control, evaluation of the likelihood and significance of each risk to financial institution, systematic assessment process of potential risks and the control assessment exposure arising from each of the category of risk and internal audit testing the effectiveness of risk assessment process.

Table 1: Extent to which BK assesses risks to ensure financial performance

systematic assessment	Mean	Std.
Systematic assessment does assess the process of potential risks	3.931	1.528
Evaluation of the likelihood and significance of each risk to financial institution	3.994	1.412
Internal audit test the effectiveness of risk assessment process	3.884	1.581
The audit committee documents oversights including risk of override of controls by internal control	4.000	1.432
The control assess exposure arising from each of the category of risk	3.911	1.571
Overall mean	3.944	

Source: Primary Data, 2022

The Table 1 demonstrates the results of Likert presented by 5 point where 1 represent to no extent, 2 to a small extent, 3 to a moderate, 4 to a great extent, and 5 to a very great extent. The mean of 4.0000 and SD of 1.43270 showed that the audit committee documents oversights including risk of override of controls by internal control assesse risk to a very great extent. The mean of 3.9948 and SD of 1.41234 indicated that evaluation of the likelihood and significance of each risk to financial institution assesses the financial risks to a very great extent. The mean of 3.9319 and SD of 1.52887 demonstrates that systematic assessment process does assessment of potential risks to a very great extent. The mean of 3.9110 and SD of 1.57194 shows control assessment exposure arising from each of the category of risk are assessed to a very great extent. The mean of 3.8848 and SD of 1.58191 showed that internal audit testing of the effectiveness of risk assessment process assesses the financial risks to a very great extent. The overall mean is 3.944 which tend to great extent which implies that the Bank of Kigali assesses the risks to a great extent to ensure financial performance. The results of the study revealed that Bank of Kigali does risk assessment to a great extent to ensure financial performance which is supported by the findings of the study of Muhunyo and Jagongo (2018) who stated that the components of internal control system including risk assessment influence financial performance of organizations.

In an interview with one of the internal auditors of Bank of Kigali; he asserted in his own word that: "*Since the time the internal control system started to be reinforced in Bank of*

Kigali; fraudulent activities were dramatically reduced which has increased financial performance because the finances of the Bank of Kigali Kept increasing also due to satisfaction of the customers which has supported customer retention and acquisition of new customers from other banks in Rwanda".

Table 2: Perceptions on risk assessment in respect to financial performance

Statement	Mean	Std.
Shared investment centers to provide accounting investments help to reduce risk of financial statement	3.994	1.470
Developing regular measurements of the institution's ethics and compliance help to assess risks	3.952	1.487
Internal audit committee does risk assessment to mitigate risks	4.000	1.447
The control enhances investigative tools to assess potential risks	3.989	1.425
Control ensures best practices of procurement, contracting and contract control to avoid risks	4.010	1.432
Overall mean	3.989	

Source: Primary Data, 2022

The Table 2 demonstrates that strongly agree is represented by 5, agree represented by 4, neutral represented by 3, disagree represented by 2, and strongly disagree represented by 1. The mean of 4.010 and SD is 1.432 strongly agreed that control ensures best practices of procurement, contracting and contract control to avoid risks. The mean of 4.000 and SD of 1.447 strongly agreed that internal audit committee does risk assessment to mitigate risks. The mean of 3.994 and SD of 1.470 strongly agreed that shared investment centers to provide accounting investments help to reduce risk of financial statement. The mean of 3.989 and SD of 1.425 strongly agreed that the control enhances investigative tools to assess potential risks. The mean of 3.952 and SD is 1.487 strongly agreed that developing regular measurements of the institution's ethics and compliance help to assess risks. The overall perception with a mean of 3.989 indicated that risk assessment is conducted to enhance financial performance.
The results of the study have revealed that risk assessment is conducted to enhance financial performance which is supported by the study of Olumbe (2012) who asserted that the components of internal control systems including risk assessment affect success and financial performance.

4.2.2 Control activities and financial performance

Table 3: Indicators of control activities that influence financial performance

Indicators	5	4	3	2	1	Mean	Std.
Physical security of assets	117(61.3%)	20(10.5%)	15(7.9%)	9(4.7%)	30(15.7%)	3.968	1.517
Reconciliation	117(61.3%)	20(10.5%)	12(6.3%)	27(14.1%)	15(7.9%)	4.031	1.398
Segregation of duties	116(60.7%)	20(10.5%)	14(7.3%)	9(4.7%)	32(16.8%)	3.937	1.544
Electronic data security	114(59.7%)	20(10.5%)	15(7.9%)	23(12.0%)	19(9.9%)	3.979	1.436
Human Resources and Payroll controls	117(61.3%)	20(10.5%)	13(6.8%)	5(2.6%)	36(18.8%)	3.926	1.577
Overall mean						3.968	

Source: Primary Data, 2022

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The Table 3 demonstrates the results of Likert scale represented by 5 point where 1 represent to no extent, 2 to a small extent, 3 to a moderate, 4 to a great extent, and 5 to a very great extent. The mean of 4.031 and SD is 1.398 with 117(61.3%) of respondents asserted that reconciliation affects financial performance to a very great extent. The mean of 3.979 and SD of 1.436 with 114(59.7%) of respondents asserted that electronic security data affects financial performance to a very great extent. The mean of 3.968 and SD of 1.517 with 117(61.3%) of respondents asserted that physical security of assets affects financial performance to a very great extent. The mean of 3.937 and SD is 1.544 with 116(60.7%) of respondents asserted that segregation of duties affect financial performance to a very great extent. The mean is 3.926 and SD is 1.577 with 117(61.3%) of respondents asserted that human resources and payroll controls affect financial performance to a very great extent. The overall mean of 3.968 shows that control activities affect financial performance in Bank of Kigali.

The results of the study indicates that control affect financial performance since the overall mean of its indicators was 3.968 and these results are supported by the study of Muhunyo and Jagongo, (2018) who proved that control activities as a component of effective internal control systems influence financial performance of the organizations.

Table 4: Perceptions on statements applied in internal control system and financial performance

Items	Mean	Std.
Return on investment in your institution has been improving steadily due to proper internal control system	3.958	1.545
Fraud and losses of revenue have been reduced due to effective internal control system	4.062	1.367
Leverage ratio is favorable to the financial performance of your institution	3.911	1.598
Return on investment in institution over has been growing steadily	4.031	1.421
Asset turnover in institution has been improving steadily good internal control	3.905	1.616
There has been a continuous diversified Investments by the institution due to good performance	4.010	1.468
The overall mean	3.979	

Source: Primary Data, 2022

The Table 4 shows that the results of Likert scale represented by 5 point where 1 represent to no extent, 2 to a small extent, 3 to a moderate, 4 to a great extent, and 5 to a very great extent. The mean of 4.062 and SD is 1.367 shows that fraud and losses of revenue have been reduced due to effective internal control system to a very great extent. The mean of 4.031 and SD of 1.421 demonstrates that return on investment in institution has been growing steadily to a very great extent. The mean of 4.010 and SD is 1.468 shows that there has been a continuous diversified investment by the institution due to good performance to a very great extent. The mean of 3.958 and SD of 1.545 shows that return on investment in institution has been improving steadily due to proper internal control system to a very great extent. The mean is 3.911 and SD is 1.598 shows that leverage ratio are favorable to the financial performance of the institution to a very great extent. The mean is 3.905 and SD is 1.616 shows that asset turnover in institution has been improving steadily good internal control to a very great

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extent. The overall mean of 3.979 shows a strong tendency to agreeing that internal control system is applied to enhance financial performance in Bank of Kigali.

4.2.3 Monitoring operations and financial performance

Table 5: Perceptions on monitoring of operations and financial performance

Statements	Mean	Std.
Monitoring operations refers to continuous assessment of activities that affect financial performance of BK	3.968	1.511
Monitoring operations affects financial performance of BK	3.853	1.663
Monitoring operations facilitates the control to implement internal control system hence financial performance of BK	3.916	1.590
Monitoring operations contributes to assessment of risk in order to ensure financial performance of BK	4.010	1.472
Monitoring operation of BK affect returns on investments	4.005	1.434
Overall mean	3.950	

Source: Primary Data, 2022

The Table 5 indicates that the results of Likert scale represented by 5 point where 1 represent to no extent, 2 to a small extent, 3 to a moderate, 4 to a great extent, and 5 to a very great extent. The mean of 4.010 and SD of 1.472 shows that monitoring operations contributes to assessment of risk in order to ensure financial performance of Bank of Kigali to a very great extent. The mean of 4.005 and SD of 1.434 showed that monitoring operations of Bank of Kigali affect returns on investments to a very great extent. The mean of 3.968 and SD of 1.511 demonstrated that monitoring operations refers to continuous assessment of activities that affect financial performance of Bank of Kigali to a very great extent. The mean of 3.916 and SD of 1.590 showed that monitoring operations facilitates the control to implement internal control system hence financial performance of Bank of Kigali to a very great extent. The mean of 3.853 and SD is 1.663 showed that monitoring operations affects financial performance of Bank of Kigali to a very great extent. The overall mean of 3.950 shows that monitoring of operations affect the financial performance in Bank of Kigali.

In an interview with one of the employee of Bank of Kigali from audit department, she stated that: "*Monitoring of operations that are conducted within the bank has raised financial performance of the Bank of Kigali because monitoring has reduced the finances that were being spent on buying and maintaining assets that were damaged by some of the employees due to carelessness but the increase of monitoring and accountability over resources the misuse of resources was reduced and enhance financial performance of the bank because such amount of money are now retained by the bank*".

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Table 6: Perceptions on internal control system applied in financial control

Perception	Mean	Std.
Organization has an accounting and financial control system	3.979	1.475
Control committed to the operation of the system	3.863	1.664
Policies and procedures available within our institution define the way that the various tasks in the bank should be fulfilled and controlled	4.005	1.474
All employees know the types of internal control used in our institution	3.947	1.575
Staff are trained to implement the accounting and financial control systems	4.068	1.429
The overall mean	3.972	

Source: Primary Data, 2022

The results in Table 6 demonstrates that mean is 4.183 and SD is 1.303 strongly agreed that follow-up actions are taken to remedy previously identified weakness in internal control system, mean is 4.068 and SD is 1.429 strongly agreed that staff are trained to implement the accounting and financial control systems, mean is 4.005 and SD is 1.474 strongly agreed that policies and procedures available within our institution define the way that the various tasks in the bank should be fulfilled and controlled, mean is 3.979 and SD is 1.475 strongly agreed that organization has an accounting and financial control system, mean is 3.947 and SD is 1.575 strongly agreed that all employees know the types of internal control used in the institution, mean is 3.863 and SD is 1.664 strongly agreed that control committed to the operation of the system. The overall mean of 3.972 shows a great tendency towards agree which confirm that internal control system of Bank of Kigali is applied to enhance financial performance.

Table 7: Perceptions on monitoring of operations as an indicator of internal control system to financial performance

	Mean	Std.
Control closely monitors implementation of internal control systems i to enhance financial performance	3.911	1.591
Internal auditor has an access to all data and information needed for the control finances	3.947	1.568
Superior officers in the accounts and audit department of the bank supervise regularly the work done by their subordinate hence financial performance	4.031	1.436
Appropriate measures are taken to correct misfeasance in operation of our accounting &finance managing system	4.628	.790
Follow-up actions are taken to remedy previously identified weakness in internal control system	4.183	1.303
The overall mean	4.140	

Source: Primary Data, 2022

The Table 7 presented the results of the study in Likert scale of 5 to 1 whereby by 5 is strongly agree to 1 which is strongly disagree. The mean of 4.628 and SD of .790 strongly agreed that appropriate measures are taken to correct misfeasance in the operation of accounting and finance managing system. The mean of 4.183 and SD of 1.303 strongly agreed that follow-up actions are taken to remedy previously identified weakness in internal control system. The mean of 4.0314 and SD of 1.4360 strongly agreed that superior officers

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in the accounts and audit department of the bank supervise regularly the work done by their subordinate to enhance financial performance. The mean of 3.947 and SD of 1.568 strongly agreed that internal auditor has an access to all data and information needed for the control finances and the mean of 3.911 and SD of 1.591 strongly agreed that control closely monitors implementation of internal control systems to enhance financial performance. The overall mean is 4.140 which imply that monitoring of operations as an indicator of internal control system affect financial performance.

Table 8: Descriptive data on evaluation of financial performance

Metrics	5	4	3	2	1	Mean	Std.
Return on equity	117(61.3%)	20(10.5%)	15(7.9%)	9(4.7%)	30(15.7%)	3.968	1.517
Return on asset	117(61.3%)	20(10.5%)	12(6.3%)	27(14.1%)	15(7.9%)	4.031	1.398
Return on investment	116(60.7%)	20(10.5%)	14(7.3%)	9(4.7%)	32(16.8%)	3.937	1.544
Overall mean						3.978	

Source: Primary Data, 2022

The Table 8 presented the results of the study in Likert scale of 5 to 1 whereby by 5 is to a very great extent to 1 which is not sure. The mean of 3.968 and S.D of 1.517 with 117 (61.3%) of respondents stated that return on equity was achieved to a moderate great extent. The mean of 4.031 and SD of 1.398 with 117 (61.3%) of respondents stated that return on asset was achieved to a moderate great extent. The mean of 3.937 and SD of 1.544 with 116 (60.7%) of respondents stated that return on investment was achieved to a y great extent. Thus, the overall mean is 3.978 which imply that a big number of respondents asserted that financial performance was achieved to a moderate extent.

Table 9: Records of financial performance of BK from 2016 to 2022 in billions of Rwf

Years	2016	2017	2018	2019	2020	2022
Net income	20.8	27.6	27.4	37.3	27.6	36.73
Total assets	638.3	661.6	2,800.0	1,019.1	1.205.0	1,500.0
Basic EPS	30.9%	34.7%	39.5%	41.4%	42,6%	54.2%
Return on assets	3.5%	3.4%	3.4%	3.9%	3.3%	3.4%
Return on equity	20.0%	20.2%	17.2%	18.0%	16.0%	18.2

Source: Annual report BK (2016-2022)

The Table 9 represents the secondary data indicating the records of financial performance of Bank of Kigali from 2016 to 2022 in billions of Rwandan Francs (view detailed information on Appendix three of BK financial statement of year 2022). The records show that the return on assets and return on equity kept growing from 2016 to 2019 until they fallen in 2020 from 3.9% to 3.3% and 18.0% to 16.0% respectively. However, the results show that Bank of Kigali is trying to cope with the effect of Covid-19 on its financial performance because in 2022 a significant increase of 0.1% in return on assets and 2.2 % in return on equity was reported.

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Table 10: Correlation analysis between internal control system and financial performance in Bank of Kigali

		Return on Equity	Return on Asset	Return on Investment
Risk Assessment	Pearson Correlation	.604**	.655**	.709**
	Sig. (2-tailed)	.000	.000	.000
	N	191	191	191
Control Activities	Pearson Correlation	.565**	.566**	.573**
	Sig. (2-tailed)	.000	.000	.000
	N	191	191	191
Monitoring of operations	Pearson Correlation	.574**	.614**	.645**
	Sig. (2-tailed)	.000	.000	.000
	N	191	191	191

**. Correlation is significant at the 0.01 level (2-tailed).
Source: Primary Data, 2022

The findings in Table 10 proves that there is a relationship between risk assessment and return equity (p=.604 and sig=.000), between risk assessment and return on asset (p=.655 and sig=.000), between risk assessment and return on investment (p=.709 and sig=.000), between control activities and return on equity (p=.565 and sig=.000), between control activities and return on asset (p=.566 and sig=.000), between control activities and return on investment (p=.573 and sig=.000), between monitoring of operations and return equity (p=.574 and sig=.000), between monitoring of operations and return on asset (p=.614 and sig=.000) between monitoring of operations and return on investment (p=.645 and sig=.000) because all calculated p- values are less than 0.01 level of significance. Thus, implies that there is a positive and significant relationship between internal control system and financial performance of BK at Nyarugenge.

Table 11: Model summary of internal control system and return on equity in Bank of Kigali

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.689[a]	.475	.467	1.05049

a. Predictors: (Constant), Monitoring , Control Activities , Risk Assessment
Source: Primary Data, 2022

The results in Table 11 indicate that that the R coefficient .689 reveals that internal control system has a positive relationship with return on equity. The coefficient of determination .475 R square also indicates that internal control system explains 47.5% the progress variability in return on equity. Thus, it implies that predictors of internal control system such as monitoring, control activities and risk assessment affect the progress of return on equity by 47.5% in BK in Nyarugenge District.

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Table 12: Analysis of Variance (ANOVA) of internal control system and return on equity in Bank of Kigali

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	186.929	3	62.310	56.464	.000[b]
Residual	206.359	187	1.104		
Total	393.288	190			

a. Dependent Variable: Return Equity
b. Predictors: (Constant), Monitoring , Control Activities , Risk Assessment
Source: Primary Data, 2022

The findings in Table 12 indicate that there is significant relationship between internal control and return on equity because the calculated significance value .000 is less than 0.05 level of significance (calculated sig. value.000< critical level of significance 0.05). Thus, the statistical model predicting the relationship between internal control and return on equity is significant.

Table 13: Coefficients of internal control system and return on equity in Bank of Kigali

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.560	.191		2.925	.004
Risk Assessment	.311	.071	.310	4.379	.000
Control Activities	.257	.067	.256	3.813	.000
Monitoring	.250	.070	.250	3.598	.000

a. Dependent Variable: Return Equity
Source: Primary Data, 2022

The results in Table 13 reveal that predictors of internal control have positive coefficients that enhance positive effect on the progress of return on equity in BK at Nyarugenge. The regression analysis indicates that there is a positive significant relationship between internal control and return on equity because all the calculated p-values are less than 0.05 each. Thus, the coefficient gives regression model, $Y=\beta0+\beta1x1+\beta2x2+\beta3x3+\beta$. Therefore, the model becomes $Y=.560+.311x1+.257x2+.250x3$, this regression equation indicates that there is a positive significant between predictors of internal control and return on equity of BK in Nyarugenge District.

The first objective of establishing the relationship between risk assessment and return on equity has a positive and significant relationship (b=.311 and p=.000). The second objective of establishing the relationship between control activities and return on equity has a positive and significant relationship (b=.257 and sig=.000), the third objective of establishing the relationship between monitoring and return on equity has a positive relationship (b=.250 and p=.000). Thus, implies that there is a positive significant relationship between internal control and return on equity of BK in Nyarugenge District.

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Table 14: Model summary of internal control system and return on asset in Bank of Kigali

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.729[a]	.532	.524	.99114

a. Predictors: (Constant), Monitoring , Control Activities , Risk Assessment
Source: Primary Data, 2022

The results in Table 14 indicate that that the R coefficient .729 reveals that internal control system have a positive relationship with return on asset. The coefficient of determination .532 R square also indicates that internal control system explains 53.2 % the progress variability in return on asset. Thus, it implies that predictors of internal control system such as monitoring, control activities and risk assessment affect the progress of return on asset by 53.2 % in BK in Nyarugenge District.

Table 15: ANOVA of Internal control system and return on assets in Bank of Kigali

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	208.760	3	69.587	70.836	.000[b]
Residual	183.701	187	.982		
Total	392.461	190			

a. Dependent Variable: Return on Asset
b. Predictors: (Constant), Monitoring , Control Activities , Risk Assessment
Source: Primary Data, 2022

The findings in Table 15 indicate that there is significant relationship between internal control and return on asset because the calculated significance value .000 is less than 0.05 level of significance (calculated sig. value.000< critical level of significance 0.05). Thus, the statistical model predicting the relationship between internal control and return on asset is significant.

Table 16: Coefficients of internal control system and return on asset in Bank of Kigali

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.461	.181		2.553	.011
Risk Assessment	.370	.067	.370	5.533	.000
Control Activities	.206	.063	.206	3.247	.001
Monitoring	.282	.066	.282	4.296	.000

a. Dependent Variable: Return on Asset
Source: Primary Data, 2022

The results in table 16 reveal that predictors of internal control have positive coefficients that enhance positive effect on the progress of return on asset in BK. The regression analysis indicates that there is a positive significant relationship between internal control and return on asset because all the calculated p-values are less than 0.05 each. Thus, the coefficient gives regression model,

Y=β0+β1x1+β2x2+β3x3+β.

Therefore, the model becomes;

Y=.461+.370x1+.206x2+.282x3, this regression equation indicates that there is a positive significant between predictors of internal control and return on asset of BK in Nyarugenge District.

The first objective of establishing the relationship between risk assessment and return on Asset has a positive and significant relationship (b=.370 and p=.000). The second objective of establishing the relationship between Control activities and return on Asset has a positive and significant relationship (b=.206 and sig=.001), the third objective of establishing the relationship between monitoring and return on asset has a positive relationship (b=.282 and p=.000). Thus, implies that there is a positive significant relationship between internal control and return on asset of BK in Nyarugenge District.

Table 17: Model summary of internal control system and return on investment in Bank of Kigali

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.772[a]	.596	.589	.91891

a. Predictors: (Constant), Monitoring , Control Activities , Risk Assessment
Source: Primary Data, 2022

The results in Table 17 indicate that that the R coefficient .772 reveals that internal control system have a positive relationship with return on investment. The coefficient of determination .596 R square also indicates that internal control system explains 59.6 % of the progress variability in return on investment. Thus, it implies that predictors of internal control system such as monitoring; control activities and risk assessment affect the progress of return on investment by 59.6% in Bank of Kigali.

Table 18: Analysis of Variance (ANOVA) of internal control system and return on investment in Bank of Kigali

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	232.696	3	77.565	91.859	.000[b]
Residual	157.901	187	.844		
Total	390.597	190			

a. Dependent Variable: Return on Investment
b. Predictors: (Constant), Monitoring , Control Activities , Risk Assessment
Source: Primary Data, 2022

The findings in Table 18 indicate that there is significant relationship between Internal Control system and return on investment because the calculated significance value .000 is less than 0.05 level of significance (calculated sig. value.000< critical level of significance 0.05). Thus, the statistical model predicting the relationship between Effect of Internal Control and return on investment is significant.

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Table 19: Coefficients of internal control system and return on investment in Bank of Kigali

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.331	.167		1.975	.050
Risk Assessment	.439	.062	.439	7.068	.000
Control Activities	.169	.059	.169	2.872	.005
Monitoring	.290	.061	.291	4.769	.000

a. Dependent Variable: Return on Investment

Source: Primary Data, 2022

The results in table 19 reveal that predictors of internal control have positive coefficients that enhance positive effect on the progress of return on Investment in BK. The regression analysis indicates that there is a positive significant relationship between internal control and return on investment because all the calculated p-values are less than 0.05 each. Thus, the coefficient gives regression model, $Y=\beta 0+\beta 1x1+\beta 2x2+\beta 3x3+\beta$. Therefore, the model becomes $Y=.331+.439x1+.169x2+.290x3$, this regression equation indicates that there is a positive significant between predictors of internal control and return on investment of BK in Nyarugenge District.

The first objective of establishing the relationship between risk assessment and return on investment has a positive and significant relationship (b=.439 and sig=.000). The second objective of establishing the relationship between Control activities and return on investment has a positive and significant relationship (b=.169 and sig=.005), the third objective of establishing the relationship between monitoring and return on investment has a positive relationship (b=.290 and sig=.000). Thus, implies that there is a positive significant relationship between internal control and return on investment of BK in Nyarugenge District.

4.3 Discussion of results

The results of the study proved a positive significant relationship between internal control system and financial performance. For instance, the relationship between risk assessment and control activities with p=.863 and sig=000, between risk assessment and monitoring of operations with p=.892 and sig=.000, between control activities and return on equity with p=.937 and sig=.000, between control activities and return on asset with p=900 and sig=.000, between monitoring of operations and return on investment with p= 877 and sig=.000, between return on asset and return on investment with p=.889 and sig=.000, between return on asset and return on equity with p=.922 and sig=.000 due to the fact all calculated p-values are much less than 0.01 degree of significance.

Therefore, most of the studies highlighted that internal control system has a relationship with organizational success in terms of meeting revenue target (Bostan, 2022); they also help the organization to achieve its defined performance through return on equity and return on investment). Empirically the study of Olumbe, (2012) revealed that there is a relationship between control activities and financial overall performance the place p-value is .792 whereas sig. is 0 at 0.01 degree of significance; there is also a relationship between monitoring operations and financial performance with p-value of .952 and sig. of 0.000 at 0.01 sig. level.

5.1 Conclusion

In conclusion, the results of the first objective concerning risk assessment and financial performance have revealed that an overall mean of 3.944 which implies that the Bank of Kigali assesses the risks to a great extent to ensure financial performance. The results have also revealed an overall mean of 3.989 which indicated that risk assessment is conducted to enhance financial performance. The findings of the regression analysis, the first target set between risk assessment and equity return has a p - value of less than 0.05 critical significance implying that it has positive relationship (b=.290 and p=.000).

The results of the second objective concerning how control activities affect financial performance have revealed an overall mean of 3.968 which implies that control activities affect financial performance in Bank of Kigali. The results have shown an overall mean of 3.979 that implies that internal control system is applied to enhance financial performance in Bank of Kigali. The results have also revealed an overall mean is 3.9856 that demonstrate that Bank of Kigali as financial institution has some challenges in terms of internal control system implementations.

Lastly, the third objective of the study concerning monitoring operation and financial performance have shown an overall mean is 3.950 implies that monitoring of operations affect the financial performance in Bank of Kigali. The results of the study proved a positive significant relationship between monitoring operations and financial performance. For instance, the relationship between monitoring of operations and return on investment with p= 877 and sig=.000 due to the fact all calculated p-value is less than 0.01 degree of significance.

5.2 Recommendations

Basing on the study findings, the researcher recommends BK to address all issues regarding internal control system in order to attain the high level of financial performance and financial performance. Furthermore a strong regular monitoring and control system should be established to ensure that internal audit recommendations and procedures manual guidelines are followed to achieve the BK objective in a smooth way.

Based on the findings of the study, BK has to train its staff and involve them in control and accountability of resources through enhanced monitoring strategies and policies that they practice to ensure financial performance.

Basing on the secondary data findings, the researcher would like to recommend to the Bank of Kigali to put in place effective policy and other means to control and manage risks related to credits because the financial statements in each annual report analysed indicate that credit overdue is among the high risks that affect financial performance.

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