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Internal Control and Financial Performance of Tier 3 Commercial Banks in Kenya

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Abstract

Banks play very important role in economic development of nations as they largely wield control over the supply of money in circulation and are the main stimuli of economic progress. Commercial banks face a myriad of challenges including internal control in establishing and maintaining financial performance. The general objective was to assess financial internal control on financial performance of Tier 3 Commercial Banks in Kenya. The specific objectives were to establish moderating effect of bank regulatory framework on internal control and financial performance of Tier 3 Commercial Banks in Kenya. Schumpeterian growth model theory was used. The study adopted descriptive and explanatory research designs. Target population for this study constituted all managers drawn from Tier 3 commercial banks in Kenya. Research approach was proportionate sampling where sample was based on proportion of the population. Simple random sampling was employed in picking managers. Questionnaire was the main tool of collecting data for independent variables while secondary data was collected for dependent variables from published annual returns obtained from Central Bank of Kenya. Combination of descriptive and inferential statistics was used to analyze collected data. Factor analysis was used to summarize information contained in a number of original variables into a smaller number of factors without losing much information. Pearson product moment correlation analysis and multiple regression analysis were employed to test the relationship between independent variables and dependent variable. Data presentation was done descriptively using percentages displayed on graphs, pie charts and tables. The sample size was 129. A modified Likert scale questionnaire was developed and used. A pilot study was carried out using a sample of 13 managers from Tier 2 commercial banks in Kenya which assisted in refining of the instruments of data collection.

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Findings indicated that correlation matrix of internal control (β =0.318, p=0.000) had linear relationship with financial performance. Regression results indicated that coefficient of internal control was 2264.5, $p = 0.001 < 0.05$ while and bank regulatory framework, moderator, had a model where F=8.033, $p = 0.006 < 0.05$. This implied that coefficients of internal control as independent variable was positive and significant at 5% level while bank regulatory framework, as moderating effect, was also positive and significant. The findings of the study indicated that internal control influenced financial performance while bank regulatory framework moderated relationship between the internal control and financial performance of Tier 3 commercial banks in Kenya. It was recommended that commercial banks should implore internal controls by enhancing internal audit, surprise check, maker checker system and management exemption reports so as to increase the financial performance of Tier 3 commercial banks in Kenya.

Keywords: Financial Performance; Financial Internal Control; Tier 3; Commercial Bank; Kenya .

1. Introduction

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. Bank performance can 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 [1] .

Financial sector is imperative for economic growth and industrialization via channeling funds, providing proficient financial system, sociable investor's treatment, and optimal utilization of resources [2]. A well-established banking sector can absorb major financial crisis in the economy and can provide a plat form for strengthening the economic system of the country [3]. The banking sector is very important in respect of the financial allocation in the world due to its intermediation functions of transferring funds from surplus units to deficit units [4, 5].

Reference [6, 7] showed that income source diversification increased risk-return trade-off for European banks although financial institutions generated large portion of their income from non-intermediation activities. [8] observed that could be associated with financial liberalization policies. This necessitated banks to shift towards non-interest income sources [9, 10]. Findings from USA studies showed that in 1990's non-interest income grew rapidly to be a large part of banks operating profits. Non-interest income accounted for 43 percent of U.S.A commercial banks net operating income [11].

Financial performance has become the main concern in numerous banking sectors in Africa. Kenyan banking sector is one of Africa's banking sectors that, has undergone banking transformation making evolution and overcoming many challenges. The origin of commercial banking in Kenya related to commercial connections in East Africa, which existed towards the end of the 19th Century. First of all there was National Bank of India in Kenya in 1896 after the establishment of the British in the region. It was followed by Standard Bank of South Africa in 1910. In 1916, the National Bank of South Africa merged with Anglo- Egyptian Bank Ltd to form

Barclays Bank (dominion Colonial). The Standard Bank of South Africa and Barclays Bank were just branches of British banks based in London. Their establishment in Kenya was just in line with the practice of British banks to follow the development of trade in their colonies and concentrate on finance of international trade. National Bank of India operated mainly in India while the Standard Bank of South Africa had its main business in South Africa. Since the banks had links with Europe, South Africa and India their businesses affected their operations, because they were mainly dealing with customers from their respective areas. Open opportunities for traders and settlers who had come to Kenya and the growing community provided initial sources of deposits in excess; and the surplus, which remained unutilized in Kenya were invested in London. Deposits were also made locally. This situation prevailed mainly because there was a gap between bankers and prospective borrowers [12]. Africa's banking sector has found a means of improving performance by undertaking a primary transformation of the business. Through the transformation, competition has emerged in all banks, thereby forcing the sector to implement expansion strategies to diversify customer and product scope. Africa's banking sector has been growing vigorously and improving performance since introducing new forms of lending, rising income strategy and improving technology to broaden access to finance.

Reference [13] reported that Kenyan banking sector comprised of 45 commercial banks, 1 mortgage finance company, 6 deposit taking microfinance institutions, 2 credit reference bureaus, 3 representative offices and 124 foreign exchange bureaus .Section 33(4) of the Banking Act empowers the Central Bank of Kenya to issue guidelines to be adhered to by financial institutions so as to maintain a stable and an efficient banking and financial system. The main objectives of the Central Bank regulations are to protect depositors, systematic risk reduction, avoid misuse of banks and to protect banking confidentiality Credit allocation [14]. The Central Bank of Kenya also fosters the liquidity, solvency, and proper functioning of a market-based financial system in its supervision functions. The CBK is also involved in continuous review of the banking sector laws and regulations to ensure that they remain relevant amid the changes in the industry.

Financial performance for Tier 3 Commercial Banks in Kenya has long been of interest to political leaders, current and potential funders, and the communities that they serve. However, these banks face a myriad of challenges in establishing and maintaining financial performance. In the study of the role of commercial banks, Reference [15] posited that as far as the financial performance of the banks itself was concerned, it was evident that most Tier 3 commercial banks and institutions would simply not be able to survive without the support of Central bank of Kenya.

Reference [16] found internal control system and financial performance were statistically significant in determining corporate goals. This is in tandem with the objective of this study. Internal controls promote efficiency, reduce risk of asset loss and help ensure the reliability of financial statements and compliance with the laws and regulations.

Today's more competitive banking environment is causing banking institutions to evaluate carefully the risks and returns involved in serving the needs of the public [17]. Hence given that their functioning area is not limited within same geographical limit of any country, banks have to manage large volume of transactions. The era of globalization modern free market economy introduce a window of banking acidity that has huge impact

on any countries trade and overall development. Reference [18] noted that financial sectors in most developing countries are characterized by fragility, volatile interest rates, high-risky investment and operational inefficiencies in their intermediation process the risk that a bank may not meet its obligations.

Reference [19] observed that as the depositors could call their funds at an inconvenient time, causing fire sale of assets. Reference [20] indicated that upon depositors calling their funds back could negatively affecting profitability of the bank. According to [21], Tier 3 commercial banking problems began the year 1986 which led to massive bank failures, that is, about 37 commercial banks as at the year 2000. The failures were attributed to non-performing assets which was due to financial performance. External auditors had come under sharp scrutiny accused of sleeping on the job or colluding with rogue directors to manipulate financial statements to hide weaknesses. This had partly been attributed to the sudden collapse of three banks-Dubai bank, Imperial bank and Chase banks- in the past nine months. Reference [22] made an attempt to identify the key variables of profitability of public sector banks in India.

Given the passage of time and limitations of case studies as far as generalization of results to the population is concerned, there is need for the present study to be conducted. This study aimed at filling this gap by evaluating the effect of financial innovation on financial performance of Tier 3 commercial banks in Kenya. The specific objective was to determine the influence of moderating effect of bank regulatory framework on internal control and financial performance of Tier 3 Commercial Banks in Kenya.

2. Materials and Methods

Cross-sectional survey research design was used in this study. This study involved 22 Tier 3 commercial banks in operation as at 31st December 2017. According to [23], an effective sample should possess diversity, representativeness, reliability and accessibility. The total management level staff is presented in table 2.1:

Table 2. 1: Target Population

Management Level	Target Population
Branch Manager	26
Executive Managers	22
Finance Managers	24
Head of ICT	25
Credit Manager	27
Internal Audit & Compliance Manager	23
Operations Manager & Customer Manager	23
Human Resource Manager	22
TOTAL	**192**

Proportionate random sampling method is used to select relevant respondents from various departments of Tier 3 commercial banks. Proportionate sampling was used to allocate the number of sample size to be pick in each Tier 3 commercial bank using simple random technique. Simple random sample was then used to pick the respondents for the study. The unit of analysis was the staff in management level in Tier 3 commercial banks in

Kenya in operation as at 31st December 2019. This study employed [24] formulae in obtaining the sample size.

As indicated [24] formulae was used to obtain the sample size of the managers:

$$n = \frac{\chi^2 * N * \mathrm{P} * (1 - \mathrm{P})}{\{ME^2 * (N - 1)\} + \{\chi^2 * \mathrm{P} * (1 - \mathrm{P})\}} \quad \text{.....3.1}$$

Where:

n = Sample size required;

χ^2 = The table value of Chi-square for one degree of freedom at the desired confidence level: N is Population size; P is Population proportion and *ME* is Desired Margin of Error.

With the population of 192 at 95 percent confidence level (table value of Chi-square for one degree of freedom being 3.841); assuming a desired margin of error of 5 percent and a 0.50 population proportion which provides maximum sample size;

Therefore, the sample size used was:

$$n = \frac{3.841 * 192 * 0.5 * (1 - 0.5)}{\{0.05^2 * (192 - 1)\} + \{3.841 * 0.5 * (1 - 0.5)\}}$$

= 128.23 ~ 129

Primary sampling unit was a Tier 3 commercial banks while the basic unit was Departmental Heads of all the Tier 3 commercial bank. The bank branches were listed and one branch for each bank picked through simple random sampling. Where the Tier 3 Commercial Bank had more than one branch, proportionate sampling was used in selection to achieve inclusion on the basis of presence [25].

The semi-structured questionnaire was administered to the staff in management level on financial performance of Tier 3 commercial banks regulated by the Central Bank of Kenya. The researcher conducted a detailed desk study of various literatures including, Central bank of Kenya reports on financial performance, reports from the World Bank and the International Monetary Fund. The questionnaire consisted of three main sections. The first part, section A covered background information of the target population. The second part, Section B focused on the financial performance of Tier 3 commercial banks: regulatory framework as a moderator and internal controls as the independent variable. In section C, financial performance of Tier 3 commercial banks as the dependent variable. Likert-type scale that ranges from 1 (strongly disagree) to 5 (strongly agree) was used to quantify the responses.

The sample size of 129, that is, staff in management level, who completed the questionnaire out of a total of 192

were obtained using proportionate is shown in the table 2.2.

Table 2. 2: Number of Managers Selected to Respond to the Questionnaires

	Name of Financial Institution	**No. of Mgt Staff**	**No. of Sample to Respond**
1.	Bank of Baroda	7	5
2.	Consolidate Bank Limited	11	7
3.	Credit Bank Limited	9	6
4.	Development Bank of Kenya	9	6
5.	Dubia Islamic Bank	7	5
6.	Fidelity Commercial Bank	9	6
7.	First Community Bank	10	7
8.	Guaranty Trust Bank	6	4
9.	Guardian Bank Ltd	11	7
10.	Gulf African Bank	11	7
11.	Habib Bank A G Zurich	7	5
12.	I & M Bank	13	9
13.	M-Oriental Commercial Bank	6	4
14.	May Fair Bank	7	5
15.	Dubai Islamic Bank	9	6
16.	Paramount Bank Ltd	9	6
17.	Prime Bank Limited	7	5
18.	Sidian Bank Ltd	16	10
19.	Spire Bank Ltd	10	7
20.	Trans National Bank	9	6
21.	United Bank Limited	6	4
22.	Victoria Commercial Bank	7	5
	Total	**192**	**129**

The selected managers from the Tier 3 commercial banks in Kenya were requested to fill the structured questionnaires with the consultation of the respective managements who provided help in order for the researcher to obtain study information. The respondents filled the questionnaire and were picked after three days. This ensured that all the questionnaires were returned. This study collected primary data which was gathered and generated for the project at hand directly from respondents mainly using questionnaires. The semi-structured questionnaire was administered to the key decision makers on financial performance of Tier 3 commercial banks regulated by the Central Bank of Kenya. The researcher conducted a detailed desk study of various literatures including, Central bank of Kenya reports on financial performance, reports from the World Bank and the International Monetary Fund. The questionnaire consisted of three main sections. The first part, section A covered background information of the target population. The second part, Section B focused on the financial performance of Tier 3 commercial banks: financial innovation, Loan Portfolio,financial risk and internal controls in place as the independent variables and regulatory . In section C, financial performance of Tier 3 commercial banks as the dependent variable. Likert-type scale that ranges from 1 (strongly disagree) to 5

(strongly agree) was used to quantify the responses to questions in section B and section C since they are relatively easy to develop and use.

Secondary data was obtained from literature sources through review of published literature such as journals, articles, published theses and text books. These sources were reviewed to give insight in the search for the primary information. Secondary data was also be collected from the various CBK Bank Supervision Annual Reports to calculate the ROA for the period 2013-2019 to represent financial performance. For financial risk, the measures for financial risk management included total capital to risk weighted assets, current ratio, cash to deposit ratio and non-performing loans. Similarly, for regulatory framework, secondary data was collected from the financial statements of the banks and books to collect information on annual earnings of the banks, profits and loss accounts and balance sheets of specialist banks registered under Central Bank of Kenya. The key variables included Return on Assets, Liquidity, Man-efficiency, and capital requirement. To evaluate the influence of internal controls on financial performance of Tier 3 commercial banks and institutions in Kenya. Secondary data was obtained from the following sources; Data on borrowing interest rates trends and monthly averages from the individual Tier 3 Commercial Banks Annual financial statements and banking supervision reports on Tier 3 Commercial Banks under consideration was obtained from the Central Bank of Kenya Website and Tier 3 Commercial Banks in operation as at 31st December 2019.

Prior to carrying out the main study, pilot study was done.[26] indicated that a pilot test is conducted to detect weakness in design and instrumentation and to provide proxy data for selection of a probability sample. Before data was collected, the study first conducted a pilot test on the research tools where data for testing were collected from 10% of the sample size, that is, 10% of 129 managers. This was in line with [27] who asserted that, a sample of 10% was adequate for pilot testing purposes. The pilot sample was therefore 13 managers from Tier 2 commercial banks. The respondents were given two days to respond. These results were not included in the study since these were from another tier.

Validity was carried out with the aim of indicating how accurate the data obtained in the study represent the variables of the study. Factor analysis was used to check validity of the constructs. Factor analysis is used to find factors among observed variables to produce a small number of factors from a large number of variables which is capable of explaining the observed variance in the larger number of variables [28]. Prior to extraction of the factors, several tests were used to assess the suitability of the respondent data for factor analysis.

Historically, the following labels are given to values of KMO [29] as depicted in table 2.3.

Table 2. 3: Labels of Kaiser-Meyer-Olkin

Value of KMO	Interpretation
0.00-0.49	Unacceptable- Sample size not accepted
0.50-0.59	Miserable- Sample size barely accepted
0.60-0.69	Mediocre-Sample size is average and accepted
0.70-0.79	Middling- Sample size is adequate
0.80-0.89	Meritorious- Sample size is commendable
0.90-1.00	Marvellous- Sample size is superb

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy provides an index between 0 and 1 of the proportion of variance among the variables that might be common variance [30]. Where KMO values are small, that less than 0.5, indicate that there is too little in common to warrant econometric analysis. Bartlett's Test of Sphericity relates to the significance of the study and thereby shows the validity and suitability of the responses collected to the problem being addressed through the study. For Factor Analysis to be recommended suitable, the Bartlett's Test of Sphericity must be less than 0.05.

3. Results

Regression model was adopted in the study to establish the statistical relationship between the independent and the dependent variables.

Kaiser-Meyer-Olkin (KMO) test was used to assess the adequacy of the samples. The test for sampling for this study was carried out and presented in table 3.1.

Table 3. 1: KMO and Bartlett's Test

Variable	KMO	Bartlett's Test	Df.	Sig.
Internal Control	0.570	300.617	153	0.000
Financial Performance	0.599	264.723	120	0.000

The Kaiser-Meyer-Olkin Measures of Sampling Adequacy showed the value of test statistic for internal control and financial performance were 0.570 and 0.599 respectively, which were greater than 0.5 hence an acceptable index. While Bartlett's Test of Sphericity showed that the test statistic value for each of the variables was 0.000 which was less than 0.05 indicating that index was acceptable. These results indicated that the sample adequacy for the variables was adequate to be utilized in the analysis.

Reliability test was carried out and the results is presented in table 3.2.

Table 3. 2: Reliability Results

Variable	**No. of Items**	**Coefficient Alpha**	**Comments**
Internal Control	18	0.924	Reliable
Financial Performance		0.872	Reliable

Cronbach's alpha was used to determine the reliability of the questionnaire used in this study. Cronbach alpha values range between 0 and 1.0; while 1.0 indicated perfect reliability. The findings indicated that internal control had a coefficient of 0.924 and financial performance had a coefficient of 0.872. All variables depicted that the value of Cronbach's Alpha are above value of 0.700 hence the study was reliable [31]. This represented high level of reliability and on this basis it was supposed that scales used in this study was reliable to capture the variables. [32] explained that reliability could be seen from two sides: reliability (the extent of accuracy) and unreliability (the extent of inaccuracy).

Kolmogorov-Smirnov (K-S) test was used to test normality. The results are presented in table 3.3 for all variables with the distribution of the variables of the study with reference to K-S test.

Table 3. 3: Tests of Normality

Variable	**Statistic**
Financial Performance	0.183
Internal Control	0.175

The findings showed that the variables had significance values higher than 0.05 thus implying that they were normally distributed. [33[observed that a multiple linear regression model was devoid of statistically significant normality problems when it returned Kolmogorov-Smirnov statistics that are greater than the significance level. In this study, the confidence interval was 95% indicating a significance level of 0.05. The findings provide a Kolmogorov-Smirnov value of 0.183 for financial performance and 0.175 for internal control.

The findings of heteroskedasticity test based on the Breuch-Pagan Lagrange Multiplier (LM) is presented in table 3.4.

Table 3. 4: Heteroskedasticty Test Results

Breuch-Pagan LM	Statistic	2.005
	Df	98
	Sig.	0.085

[33] intimated that the error term is homoscedastic if the Breuch-Pagan LM has a significant value greater than the standard model level of significance. In this study, the Breuch-Pagan LM was 2.005 with a significance level of 0.085. Since the significance value was greater than 0.05, the null hypothesis that there was no significant level of heteroscedasticity was rejected with the conclusion that the error term was homoscedastic. This implied that the findings met the homoscedasticity criteria in line with [33].

This study used [34] test to check that the residuals of the models were not auto correlated since independence of the residuals is one of the basic hypotheses of regression analysis. The results of D-W test in table 3.5 showed the relationship between an error and its immediately previous value.

Table 3. 5: Serial Correlation Test

Model	Durbin Watson
Simple Regression	1.735

* Predictors: (Constant), Internal Control

** Dependent Variable: Financial Performance

The results indicated that DW statistics was 1.735 which was close to the prescribed value of 2.0 for residual independence. This implied that data had no autocorrelation.

In this study, collinearity was tested using the Tolerance and Variance Inflation Factor (VIF). These variables were subjected to the multicollinearity test and the result is presented in Table 3.6.

Table 3. 6: Multicollinearity Test Results

Variable	**Collinearity**	**Statidtics**
	VIF	Tolerance
Internal Control	1.098	0.911
Financial Performance	1.059	0.944

Multicollinearity in the study was tested using Variance Inflation Factor (VIF). A VIF of more than 10 (VIF ≥ 10) indicated a problem of multicollinearity. According to [35] the cut off thresholds of 10 and above indicated the existence of multicollinearity while tolerance statistic values below 0.1 indicated a serious problem while those below 0.2 indicated a potential problem. The results showed that Variance Inflation Factor of internal control and bank regulatory framework 1.098 and 1.059 respectively. The tolerance levels for financial innovation and financial performance 0.911 and 0.944 respectively. The results in table 4.30 indicated that the VIF value for internal control and bank regulatory framework had values below 10 with tolerance values above 0.1. Based on these results, the assumption of no multicollinearity between predictor variables was therefore not rejected.

The study sought to establish the association among the study variables. The results are as presented in Table 3.7.

Table 3.7: Correlation Matrix

	FinPerf	FinInnov	BankRF
FinPerf	1		
InterContrl	0.318*	1	
BankRF	0.081	-0.007	1

- Indicates significant at 5% level.

The results in table 4.31 showed that internal control were significant and positively associated with financial

performance (FinPerf).

A bivariate analysis of the effect of financial internal control on financing performance of Tier 3 commercial banks in Kenya was carried out. To determine bank regulatory framework as a moderating effect of financial internal control and financial performance of Tier 3 commercial banks in Kenya, three models were fitted hierarchically with as depicted in table 3.7.

1. Model 1 having X_1 as the predictor.
2. Model 2 having X_1 and the moderation variable as a predictor.
3. Model 3 is model 2 with interaction term between X_1 and the moderating variable.

Table 3. 6: Moderating Effect of Bank Regulatory Framework on Internal Control and Financial Performance

Model	R	R Square	Adjusted Square	RStd. Error Estimate	ofR Square Change	F Change	Sig. F Change
3	0.481[d]	0.232	0.207	1904.98	0.065	8.033	0.006

ANOVA[a]

Model		Sum of Squares	Df	F	Sig.
3	Regression	103930761	3	9.546	0.000[d]
	Residual	344750374	95		
	Total	448681136	98		

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		Beta	Std. Error	Beta	t	Sig.
3	(Constant)	-6874.899	1794.7		-3.831	0.000
	InterControl	1570.818	668.54	0.221	2.350	0.021
	Bank RegFrame	747.230	380.6	0.177	1.963	0.053
	FiInnov*BankRegFrame.	2995.949	1057.0	0.256	2.834	0.006

a. **Dependent Variable**: Financial Performance

b. **Predictors:** (Constant), InterControl

c. **Predictors: (**Constant), InterControl, BankRegFrame

d. **Predictors:** (Constant)), InterControl*BankRegFrame

Model 3 showed that when the interaction term (financial innovation*bank regulatory framework) was introduced, the model was significant (F change = 8.033, p-value = 0.006). This meant that the moderator, bank regulatory framework, was statistically significant moderator of the relationship between internal control and financial performance of Tier 3 commercial banks in Kenya.

Applying Regression Analysis, the stated hypotheses was that there is no significant influence of moderating effect of bank regulatory framework on internal control and financial performance of Tier 3 Commercial Banks in Kenya. The observed test statistic, (F change = 8.033, p = 0.006), for the model when the interaction term (internal control*bank regulatory framework) was introduced, indicating the model was significant. This meant that the moderator, bank regulatory framework, was statistically significant moderator of the relationship between internal control and financial performance of Tier 3 commercial banks in Kenya at 5 percent level.

Therefore, the null hypothesis indicating that bank regulatory framework does not statistically moderated the relationship between internal control and financial performance of Tier 3 commercial banks in Kenya was rejected at 5 percent level of significance.

4. Conclusion

The study concluded that internal controls significantly affected the financial performance of Tier 3 commercial banks in Kenya. This is explained by the fact that Tier 3 commercial banks in Kenya had put in place controls which could ensure that fraudulent transactions were flagged or made difficult to transact. Further, Tier 3 commercial banks were performing auditing work according to internal auditing standards which contributed significantly to effectiveness. Performing of surprise checks was done regularly which could influenced positively the performance of Tier 3 commercial banks. Reconciliation of the banks' accounts were done on a daily basis to ensure no outstanding items that could result to bank's loss.

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