

Effect of bank internal control system on non-financial performance of selected quoted deposit money bank in Nigeria

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Abstract

The increasing trend of declined in bank efficiency and operational performance in recent years raised unquestionable concerned and pose serious threats to the stability and survival of deposit money banks across the globe. Studies have shown that most deposit money banks in Nigeria have experienced declined in bank efficiency and operational performance due to weak internal control system thus caused financial losses to banks and loss of public confidence in the banking sector. The study employed a survey research design and the population was 568 staff and the sample size used was 292 using Cochran sample size determination. The reliability coefficient ranged from 0.71 to 0.94. The study found out that internal control system has positive and significant effect on bank efficiency and operational performance of the selected quoted deposit money banks with ($P<5\%$). The study concluded that internal control system has effect on bank operational performance and efficiency. The study recommended that the management should ensure that their banks have strong internal control environment and embrace inform policies and procedures that are adequate in order to achieve operational performance and bank efficiency.

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1. Introduction

1.1 Background

Globally, banking industry has been one of the major industries among others, contributing economic business activities and productivity, growth and economic development. Attaining financial and non-financial performance by deposit money banks depends on the management ability to effectively institutionalized strong internal control system. Majorly, banking industry are subject to internal fraud risks which have deleteriously affected their non-financial performance. The challenges of continuous decline in performance of banks could be partly explained by the high degree of ineffective internal control system. Recent failures and collapsed of highly profile institution like Barings Bank, Tyco Plc, Bernie Madoff Plc, Freddie Mac Plc, Enron Plc, and WorldCom Plc are traceable to ineffective control system (Umar & Dikko, 2018).

In developing countries, especially Africa nations, commercial banks have been experiencing issue associated with a persistent slowdown in operational and financial performance and bank inefficiency in service delivery due to increasing incidences of weak internal control (Ibrahim, Diibuzie & Abubakari, 2017; Kolapo & Olaniyan, 2018). In South Africa, cases of accounting scandals have been documented in Randgold and Exploration companies. In Nigeria, the managing director and chief financial officer of Cadbury Nigeria were dismissed in 2006 for inflating the profits of the company for some years before the company's foreign partner acquired controlling interest. Njeri (2014) and Muhunyo and Jagongo (2018) noted that firms and other financial institutions in Kenya still struggle with liquidity challenges, untimely financial reports, and inefficient accountability for the commercial financial resources and frauds and misuse of the bank resources. These scandals were due to poor internal control system which has trigger challenges of bank in efficiency and poor operational performance among commercial banks in African countries. As stated by Onyuka and Otinga (2019) that Nigeria, Kenya, Zimbabwe and South Africa make up 74 percent of all fraud cases reported in Africa. In the East African region, Kenya in standing out with 7.75 percent of reported fraud cases, well ahead of Uganda (2.98 percent) and Tanzania (2.78 percent). This is worrisome as the most of commercial banks have challenges with internal control system that could have curb fraud in the banking system.

The Nigerian banking industry has its challenges perceptible to weak internal controls and ineffective external audit which have caused challenge in bank performance, increase in non-performing loans, lack of transparency and capital inadequacy; as stated by Adeyemi and Adenugba (2011) argued that weak internal control system has a very significant role in the crisis that enveloped the Nigerian banking sector, especially from early 1990's up till mid-2004 (Adeyemi & Adenugba, 2011). Despite the 2005 Nigerian banking sector reforms, a breakdown

has occurred in the banks' systems of internal control, resulting in regulatory failures and poor corporate governance (Agbonkpolor, 2010; Umar & Dikko, 2018).

Furthermore, the Nigerian deposit money bank industry has witnessed merger and acquisition, collapsed, poor governance due to weak internal control system and thus led to continuous declined in financial and non-financial performance over different periods. Umar and Dikko (2018) pointed out that majority of deposit money banks failed in Nigeria resulting from ineffective internal control, thus caused huge financial loss, declined in operational performance, increase in bank inefficiency, depletion of shareholders' funds and banks' capital base as well as loss of public confidence in banks. In spite of the significance contribution of deposit money banks in the economic activities, regulation and growth of any economies, studies linking internal control system and non-financial performance of selected quoted deposit money banks are scanty, most of past studies either examined internal control system and financial performance of banks or internal control system and performance employing participants from different industries (Stoel & Muhanna, 2011; Saarni, 2012; Njeri, 2014; Kinyua, Gakure, Gekara, & Orwa, 2015; Hunziker, 2016; Tseng, 2017; Kolapo & Olaniyan, 2018; Muhunyo & Jagongo, 2018; Umar & Dikko, 2018 among others) thereby ignoring linkage between internal control system and non-financial performance of deposit money bank industry. This indicated that there is literature gap on the link between internal control system and non-financial performance of selected quoted deposit money banks in Nigeria. Therefore, this study intended to investigate the study problems and fill the gap in literature.

1.2 Research questions

Centered on the problem and gap identified in literature, this study answers the following research questions:

- i) What is the effect of internal control system on bank efficiency of selected quoted deposit money banks in Nigeria?
- ii) Does internal control system affect operational performance of selected quoted deposit money banks in Nigeria?

1.3 Research objectives

The broad objective of this study examined the effect of internal control system on non-financial performance of selected quoted deposit money banks in Nigeria. The specific objectives are to:

- i) Determine the effect of internal control system on bank efficiency of selected quoted deposit money banks in Nigeria; and
- ii) Examine the effect of internal control system on operational performance of selected quoted deposit money banks in Nigeria

2. Literature review

2.1 Internal control system

Owusu-Boateng, Amofa and Owusu (2017) conceptualized internal control system as a procedure of accounting planned in ensuring efficient safeguard of assets or implementing a policy that will avoid fraud and error in the management of organizational processes and values. Internal control system is a critical part of administrating an organization as it entails the plans, methods, and procedures used to meet an organization's vision, mission, goals and objectives; and by acting in that way, sustain performance based executive. Internal control assists managers to achieve required results through effective management of resources (Muhunyo & Jagongo, 2018).

2.2 Non-financial performance

Hughes and Mester (2014) view bank performance in two ways through different tools based on financial and non-financial aspect. This study focused on non-financial performance aspect which are; (i) Bank Efficiency and (ii) Operational performance.

(i) Bank Efficiency: This is the judicious utilization of resources input to produce maximum outputs. Omankhanlen (2013) argued that efficiency consist of technical efficiency and price efficiency. He further stated that technical efficiency mirrors the ability of a firm to obtain maximum output from a given set of inputs while the price efficiency reveals the ability of a firm to use the inputs at optimal propositions given their respective prices and the production technology. The combination of these two measures provides a measure of total economic efficiency for an organization.

(ii) Operational Performance: Operational performance could be defined within three critical performance factors (quality, dependability, and speed). Consistent quality, dependability of delivery, and prompt delivery (speed) are critical operations performance factors in service delivery systems (Kumar, Batista, & Maull, 2011). There are four criteria to measure the operational performance; are quick delivery compared to the major competitor, unit cost of product relative to competitors, overall productivity and overall customer satisfaction.

Several studies have empirically examined the link between internal control system and firm performance in different economies. Studies such as Umar and Dikko (2018), Muhunyo and Jagongo (2018) and Ajala, Amuda and Arulogun (2013) examined the effect of internal control system on firm performance. These studies revealed that internal control system has positive and significant effect of firm performance. Umar and Dikko (2018) further emphasized that whatever types of internal control system like environmental control system, risk assessment, information and communication control and monitoring have positive and significant effect on bank

performance. Similarly, Sang (2012) and Zuraidah, Mohd and Yusarina (2015) studied how internal control system prevent bank fraud and improve bank performance. These studies found that perpetrators of fraud in the commercial banks always have insight of the weaknesses of the internal procedures and had taken advantage and capitalize on the process to penetrate the system and commit fraud.

Furthermore, Turedi and Celayir (2018) found that effective internal control structure is a crucial element in ensuring efficiency, profitability and sustainability across businesses and that effective control structure is the key to success desired/aimed for a business. Dubihlela and Nqala (2017) found that internal risk control mitigate risks and ensure the reliability of performance reports and compliance with laws, policies and regulations, thus enhance firm performance. Omonyemen, Josiah and Godwin (2017) studied how internal control can serve as the basis for prevention, detection and eradication of frauds in banks in Nigeria. The study found that all three core internal control audit features; internal audit size, internal audit quality and internal audit independence have a significant positive impact of financial fraud detection.

Adu-Frimpong (2015) studied the effects of internal control in the operations of bond savings and loans financial institutions. His study found that inability of the internal control system to detect staff that do not comply with control policies; inadequate physical control measures and procedures over the company's assets to protect those assets against theft and unauthorized access are some of the challenges of bond savings and loans financial institutions. It was also revealed that the internal control system had led to positive financial and non-financial performance at bond savings and loans financial institutions. On the contrary, Kabuye, Kato, Akugizibwe and Bugambiro (2019) established that internal control systems do not significantly predict financial performance. Considering majority of past studies, they focused on link between internal control system and financial performance without empirically investigate how internal control system affect non-financial performance measure like (bank efficiency and operational performance) of selected quoted deposit money banks are scanty. Based on this empirical gap identified linking internal control system with non-financial performance (bank efficiency and operational performance) especially in the Nigeria deposit money bank industry, this study formulated hypotheses that;

Ho1: Internal control system has no significant effect on bank efficiency of selected quoted deposit money bank in Nigeria; and

Ho2: Internal control system has no significant effect on operational performance of selected quoted deposit money bank in Nigeria

3. Data description and sources

This study adopted the primary source of data collection (questionnaire) in gathering data from the top and middle management team of the selected deposit money banks head office. The primary source of data collection enhances originality, opinions and perceptions of respondents under study variables.

Primary data

This study collected data through administration of structured questionnaire to two hundred and ninety two (292) top and middle level management teams of the respective selected head office of quoted deposit money banks in Nigeria. The questionnaire was appropriate for this study based on the level of originality, confidentiality and non-biases on the responses of the respondents.

4. Research methodology

This study adopted a survey research design to explore the link between internal control system and non-financial performance (bank efficiency and operational performance) of selected quoted deposit money banks in Nigeria. The survey method involved the use of structured questionnaire, which was designed to obtain data from respondents on the instrumentation of internal control system as well as bank's non-financial performance through bank efficiency and operational performance. The study population cuts across all top and middle strategic managers of the 22 quoted deposit money banks in Nigeria which are categorized into international and national deposit money banks in Nigeria.

The international deposit money banks are; First Bank Plc, United Bank for Africa Plc and Zenith Bank Plc with population of 302 while for national deposit money banks are; Ecobank Nigeria Plc, Sterling Bank Plc, and Wema Bank Plc with population of 266. The grand total population of the study is 568. The sample size was determined using Cochran (1997) formula sample size determination. The formula is:

$$n = \frac{NZ^2pq}{d^2(N-1) + Z^2pq}$$

Where:

n = sample size;

N = Total number of staff of the selected banks (N=568)

Z = 95% Confidence Interval (Z = 1.96);

$p = 0.5$, $= p$ is the estimated proportion of an attribute that is present in the population. q is $1-p$. $(p)(q)$ are the estimate of variance; $q = 1 - p$; d = degree of accuracy or estimation ($d = 0.04$). Therefore;

$$n = \frac{568 (1.96)^2 (0.5) (0.5)}{(0.04)^2 (568 - 1) + (1.96)^2 (0.5) (0.5)} = 292$$

$$(0.04)^2 (568 - 1) + (1.96)^2 (0.5) (0.5)$$

$$n = 292$$

4.1 Reliability and validity results

The construct validity of the research instrument was further established through confirmatory factor analysis. Average Variance Extracted (AVE) greater than 0.5 were used as an additional evidence of construct validity of all variables in the research instrument. The Cronbach's Alpha coefficient for all the study variables are above 0.70, which suggests that the instrument used for evaluation was highly reliable. Hence, the researcher affirms that the research instrument used is reliable. The result of the Cronbach Alpha for each of the variable is presented in Table 1. In this study, regression method of analysis was used to examine the effect of internal control system on non-financial performance of selected quoted deposit money banks in Nigeria.

Table 1: Validity and Reliability Statistics

S/N	Variables	No of Items	KMO	Bartlett's Test	Average Variance Explained	Composite Reliability	Cronbach's Alpha
1.	Internal Control System	8	0.795	681.678	0.799	0.912	0.710
2.	Bank Efficiency	5	0.864	674.198	0.882	0.924	0.843
3.	Bank Operational Performance	5	0.871	588.714	0.839	0.969	0.881

Source: Researcher's Field Survey (2019)

4.2 Model specification

The model for the variables is denoted in the equations below:

Y = Dependent Variable

X = Independent Variable

Y = Bank Performance (BP)

$Y_{BP} = (y_1, y_2)$

y_1 = Bank Efficiency (BE)

y_2 = Operational Performance (OP)

X_{ICS} = Internal Control System (ICS)

Where; Y = Bank Performance (BP)

y_1 = Bank Efficiency (BE)

y_2 = Operational Performance (OP)

X_{ICS} =Internal Control System (ICS)

Model One

$$BE = \beta_0 + \beta_1 ICS + \varepsilon_i \quad \text{Eqn 1}$$

Model Two

$$OP = \beta_0 + \beta_1 ICS + \varepsilon_i \quad \text{Eqn 2}$$

Where; β_0 = the constant of the equation; β_1 = the coefficient of variable in the equations;

ε_i = Error Term; and *A Priori* Expectation $\beta_1 > 0$.

5. Empirical results

Table 2 for model one, revealed that coefficient of relative effect ($R = 0.458$) shows a strong positive correlation exists between internal control system and bank efficiency. The coefficient of determination (R^2) of 0.402 shows that internal control system can only be explained by 40.2% of variation in bank efficiency.

Table 2: Model One: Regression Results on the Effect of Internal Control System on Bank Efficiency of Selected Quoted Deposit Money Banks in Nigeria

Model	B	Std. Error	Beta	t	Sig.	R	R ²	F-Value	Sig.	Durbin-Watson
(Constant)	.647	.394		1.821	.102	0.458	0.402	12.422	0.000	1.923
Internal Control System	.102	.041	.152	2.972	.021					

Dependent Variable: Bank Efficiency

However, the model did not explain 59.8% of the variation in bank efficiency, implying that there are other factors associated with bank efficiency which were not captured in the model. Furthermore, Table 2 also shows the ANOVA result. The result revealed that overall, the explanatory power of the model was considered statistically significant with the F ratio output of the model reporting a p-value of .021 ($F = 12.422$, $p < 0.05$). This indicated that internal control system has positive and significant effect on bank efficiency of selected quoted deposit money bank in Nigeria. Therefore, this study rejected the null hypothesis one that; **H₀₁**: internal control

system has no significant effect on bank efficiency of selected quoted deposit money bank in Nigeria.

Table 3: Model Two: Regression Results on the Effect of Internal Control System on Operational Performance of Selected Quoted Deposit Money Banks in Nigeria

Model	B	Std. Error	Beta	t	Sig.	R	R ²	F-Value	Sig.	Durbin-Watson
(Constant)	.532	.041		1.902	.410	0.431	0.390	9.212	0.000	2.042
Internal Control System	.175	.013	.203	3.941	.001					

Dependent Variable: Operational Performance

Table 3, for model two, revealed that coefficient of relative effect ($R = 0.431$) shows a strong positive correlation exists between internal control system and bank operational performance. The coefficient of determination (R^2) of 0.39 shows that internal control system can only be explained by 39% of variation in bank operational performance. However the model did not explain 61% of the variation in bank operational performance, implying that there are other factors associated with bank operational performance which was not captured in the model. Furthermore, Table 3, also shows the ANOVA result. The result revealed that overall, the explanatory power of the model was considered statistically significant with the F ratio output of the model reporting a p-value of .001 ($F = 9.212$, $p < 0.05$). This indicated that internal control system has positive and significant effect on bank operational performance of selected quoted deposit money bank in Nigeria. Therefore, this study rejected the null hypothesis two that; **H01:** Internal control system has no significant effect on bank operational performance of selected quoted deposit money bank in Nigeria.

Several studies (Adu-Frimpong, 2015; Hunziker, 2016; Dubihlela & Nqala, 2017; Ibrahim, Diibuzie & Abubakari, 2017) are in line with our finding that effective internal control system prevent fraud management practices and thus enhance positive and significant effect on bank operational performance and bank efficiency. Furthermore, Zuraidah, Mohd and Yusarina (2015), Sang (2012), Kinyua, Gakure, Gekara and Orwa (2015) and Muhunyo and Jagongo (2018) established that standard internal control system control fraud management practices and that effective internal control system significantly affect bank operational performance and bank efficiency. On the contrary, Kabuye, Kato, Akugizibwe and Bugambiro (2019) established that internal control systems do not significantly predict financial performance. Considering majority of empirical findings that internal control system has positive and significant effect bank operational performance and bank efficiency. Based on these majority findings that internal control system has positive and significant effect on firm performance, therefore, this study rejected the

null hypothesis one and two that internal control system does not significantly affect bank operational performance and bank efficiency of selected quoted deposit money banks in Nigeria.

6. Conclusion and recommendations

The study concludes that internal control system has positive and significant effect on operational bank performance and bank efficiency of selected quoted deposit money banks in Nigeria. Based on the findings, the study recommended that; the management should ensure that their banks have strong internal control environment where internal control activities inform of policies and procedures are adequate.

The control environment and control activities should on a regular basis be evaluated by internal audit department. This is to provide management with the assurance on the adequacy and effectiveness of controls that management has put in place. The management of the banks to seal all loopholes that may create opportunities for undermining of internal control systems.

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