Effect of the Capability Component of Fraud Theory on Fraud Risk Management in Nigerian Banks

Charles Uzodinma Eze[1], Emmanuel Chukwuma Ebe[2], Ifeoma Mary Okwo[3], Ogechi Ibeabuchi-Ani[4], Magnus S Odume[5], Jennifer Odinakachi Godspower[2], Josephine Adanma Nmesirionye[2], Chinelo Jenevive Obiekwe[4], Enobong Eshiet Udeme[4] & Emmanuel Ifeanyi Obeagu[6]

[1] West African Examination Council (WAEC), Nigeria

[2] Department of Accounting, Michael Okpara University of Agriculture, Umudike, Nigeria

[3] Department of Accountancy, Enugu State University of Science and Technology Agbani, Nigeria

[4] Department of Banking and Finance, Michael Okpara University of Agriculture, Umudike, Nigeria

[5] First Bank Nigeria plc, Nigeria

[6] Department of Medical Laboratory Science, Imo State University, Owerri, Imo State, Nigeria

Correspondence: Emmanuel Ifeanyi Obeagu, Department of Medical Laboratory Science, Imo State University, Owerri, Imo State, Nigeria. E-mail: emmanuelobeagu@yahoo.com

Received: January 20, 2022 Accepted: February 23, 2022 Online Published: February 25, 2022

doi:10.5430/ijfr.v13n1p90 URL: https://doi.org/10.5430/ijfr.v13n1p90

Abstract

The incidence of bank fraud is a fundamental problem with diverse consequences to banks and their stakeholders. Therefore, this study examined the effect of the capability component of fraud theory on fraud risk management in Nigerian banks. The specific objectives of the study are to: examine the effect of malicious insider abuses on fraud risk management efficiency of Nigerian banking sector; evaluate the effect of internal control bypasses on fraud risk management efficiency of Nigerian banking sector; investigate the effect of information security breaches on fraud risk management efficiency of Nigerian banking sector, and ascertain the effect of fraud risk governance on fraud risk management efficiency of Nigerian banking sector. The study adopted ex-post factoresearch design. Secondary data were gathered from the quarterly report on fraud and forgeries of the Financial Institutions Training Centre (FITC) from the first quarter of 2011 to the second quarter of 2020 given a total of thirty-eight (38) observations. The dependent variable of the study was fraud risk management efficiency (FRMη) while the independent variables were malicious insider abuses (MIA), Internal Control Bypasses (ICB), Information Security Breaches (ISB), and fraud risk governance (FRG). Four hypotheses were formulated and tested using robust linear regression analysis. The study employed Stata 14.2 and SPSS 22 in data analyses. We also conducted Skewness/Kurtosis and Shapiro-Francia W' normality tests, Variance Inflation Factor (VIF) of multicollinearity, Breusch-Pagan/Cook Weisberg test of heteroskedasticity, and Durbin-Watson test for autocorrelation. The results revealed statistically significant negative effects of internal control bypasses and information security breaches on fraud risk management efficiency. The study also found an insignificant positive effect of malicious insider threats and fraud risk governance on fraud risk management efficiency. The implication of these findings is that the Nigerian banking sector is confronted with both internal and external fraud capability challenges which require management attention and stakeholders' education and awareness. Based on these findings, the study offers comprehensive fraud vulnerability suggestions integrating all banking stakeholders (internal and external) to improve fraud risk management efficiency in Nigerian banking sector.

Keywords: capability component, fraud theory, fraud risk management, Nigerian banks

1. Introduction

Fraud is a global challenge threatening the continued existence of organizations, governments, and countries (Enofe and Egbe, and, 2016). As age long phenomenon, fraud risk management has been at the center of discourse and will linger until its ravaging impact is reduced or mitigated. Ogbeide (2018) assert that fraud is synonymous with human nature, therefore no entity, state or nation is immune from it (Enofe*et al.*, 2018). Holding the same opinion, the report of the global survey conducted by the Association of Certified Fraud Examiners (ACFE) in 2014 estimated fraud losses at 5% of organizations' total annual revenue. Thus, managing fraud risk is a great concern to regulators, institutions, investors, and the public at large. Fraud risk management is an organized process that assists organizations to understand the inevitable risks and enables them to establish procedures that will first prevent the fraud from occurring, detect as soon as a fraud occurs and respond effectively to the incident as it occurs.

Over the years, the incidence of bank fraud is a deep-rooted problem with adverse financial consequences for the banking sector, economic development, and growth across the globe (Odukoya*et al.,* 2018). Having persisted in the Nigeria banking system for long, and on the increasing trend (Taiwo, Agwu, Babajide, Okafor and Isibor, 2016), the incidence of fraud has attracted a good number of studies from both empirical and theoretical perspective with consistent results of adverse consequences on banks performance and the economy by an extension (Odukoya*et al.*, 2018; Iyodo *et al.,* 2016; Oseiweh, 2018; Samuel *et al.,* 2018; Imagbe*et al.,* 2019). Previous studies such as Wolfe and Harmanson (2014) and (Odukoya*et al.,* (2018) have suggested that understanding the capability component of fraud theory is vital in the assessment of the inherent weaknesses in the security defense system and crucial in the forensic arena. The capability component of fraud theory suggests that fraud can only be successful when the right persons with sufficient knowledge to bypass or circumvent controls are involved.

Again, the new paradigm in the payment system introduced a whole new level of convenience because of its fast and easy manner with which transactions are performed electronically; but Ajiboye (2016) noted the recurring challenges of security breaches in the form of fraud, money laundering, and terrorism financing. Information security breach connotes unauthorized access, use, disclosure, disruption, modification, or destruction of information or information system (Sattarova and Tao-hoon, 2007). Major problems manifested on how the payment systems can limit individuals/groups with malicious intent from breaking into the system to initiate unauthorized transactions on another person's legitimate account, steal customers personal data, mask illegitimate or illegal transactions, and funding of illegal activities (Mark-Fajfar*et al.,* 2014).

Observably, recent studies have noted that Nigerian fraudsters and their foreign counterparts are deploying more sophisticated Information and Communication Technology (ICT) based techniques such as Phishing, Key-loggers, Fake Copy-Cat Web Sites, Credit Card Fraud, Man in the Middle or Man in the Browser and other Hacking software to elicit, harvest or gain unauthorized access and use of sensitive customers account information and banks information system (Kanu and Nwadiubu, 2020; Saulawa and Abubakar, 2014). However, as the news of data breaches and internal control bypasses escalate, and payment technologies rapidly change in form, we must start reviewing the essential components of fraud theories to understand the realities that this recurring phenomenon presents. Information technology breaches and internal control bypass requires "capacity". Accordingly, Wolfe and Harmanson (2014) argued that it is only persons with relevant competencies, abilities, core skills, values, attitudes, distinguishing characteristics, pervasive qualities, and mindset that can identify the loophole in the control system (opportunity) and can exploit and conceal it. In a specific term, the capability component seeks to identify who has the competencies to bypass countermeasures.

In this context, the financial institutions are perceived to be confronted with both internal capacity and external capacity threats. Internal capacity threats are malicious employees "insiders" who might abuse their privileged access for personal gain. This category of threat has several levels of privilege to information or systems but may choose to abuse it. Regrettably, most investments to protect the banks from attacks are focused on the outsiders, while relying on the organization's ethics and morals to curtail the insider threats (Yaseen, 2016). External capacity threats are knowledgeable outsiders that might collide with the malicious insiders, take advantage of the security education and awareness gap, or deploy ICT tools to gain unauthorized access to the information system. This group targets information security breaches.

Notably, Kalu and Nwadiubu (2020) observed that questions seeking solutions on why people commit fraud have not yielded definite answers over decades. Odukoya*et al*. (2018) argued that capacity as an essential element of fraud can assist fraud examiners and investigators in building investigative skills and competencies. To this end, considering the persistent increase in the number of fraud reported cases in Nigerian banks, evaluating the effect of the capability component of fraud theory on fraud risk management is considered an area that requires genuine attention.

The study was done to evaluate the effect of the capability component of fraud on fraud risk management using Nigerian banks as a case study.

2. Method

The study adopted *ex-post facto* research design. The population of this study is banking sector that have active in Nigeria Stock exchange. Data were extracted from financial statements of companies by using comprehensive software of Exchange and related Internet sites. In order to analyze the data resulted from collected annual reports and accounts of selected banks descriptive statistical methods are used. The study focused on fraud and forgeries in the Nigerian banking sector. Specifically, the study concentrated on fraud across bank branches and payment channels as presented in the quarterly published reports on fraud and forgeries in the Nigerian banking sector of the Financial Institution Training Centre (FITC) from the first quarter, 2011 to the second quarter of 2020. In order to determine the relationship between the variables of the study, the Stata 14.2 and SPSS 22 tool has been used.

3. Results

In this paper we have four hypotheses. The statistical way of analysis of hypotheses is two ways, H1 is acceptance of hypothesis and H0 is rejecting of hypothesis. In other words, it means that H1 has positive meaning and H0 has negative meaning.

Table 1. Test of Hypotheses

Linear regression						Number of obs		38
F(4, 33)		80.95						
Prob> F		0.0000						
R-squared		0.7472						
Root MSE		8.4595						
Frmη	Coef. (β)	Robust Std Err.	T	P>t	[95% Conf. interval		VIF	1/VIF
Isb	-.4979603	0.1453363	-3.43	0.002	-0.7936492	-0.2022714	1.62	0.618257
Mia	2.78998	3.03551	0.92	0.365	-3.385811	8.965772	1.55	0.646354
Icb	-0.5988402	0.1295573	-4.62	0.000	-0.8624264	-0.3352539	1.16	0.864884
Frg	0.1081059	0.0605045	1.79	0.083	-0.0149915	0.2312034	1.08	0.0924947
_cons	86.65532	16.16432	5.36	0.000	53.76876	119.5419		
						Mean VIF	1.35	
						Durbin-Watson	1.927	

Source: Stata 14.2 Statistical Software Computation

Hypothesis 1: H_0: Malicious insider abuses have no significant effect on the fraud risk management efficiency of Nigerian banking sector.

H_1: Malicious insider abuses have significant effect on the fraud risk management efficiency of Nigerian banking sector.

the findings revealed that the coefficient malicious insider abuses is statistically insignificant and equally indicated positive effect on fraud risk management efficiency 2.78998, the t-statistics of 0.92 < 2 and P-value of 0.365 > 0.05 which is not significant at 5% significance level. The study accepts the null hypothesis, which states that malicious insider abuses have no significant effect on fraud risk management efficiency of Nigerian banking sector. The findings of this study supported the finding of Samuel et al. (2018) who found an insignificant influence of insider threats on fraud losses in Nigerian banks, but negates the findings of Eze and Ikpor (2017) who found malicious insiders as a significant threat to Nigerian banks. Also the findings are in disagreement with the finding of Yeseen

(2016) and Sexena et al. (2020) both found malicious insiders significant threats to firms in Jordan and USA respective.

H_0: Internal control bypasses have no significant effect on the fraud risk management efficiency of Nigerian banking sector.

H_1: Internal control bypasses have significant effect on the fraud risk management efficiency of Nigerian banking sector.

The findings revealed that the coefficient internal control bypasses is significant and equally indicated negative effect on fraud risk management efficiency -0.5988402, the t-statistics of -4.62 > 2 and P-value of 0.000 < 0.05 which is significant at 5% significance level. Therefore, the study accepts the alternate hypothesis, which states that internal control bypasses have significant effect on fraud risk management efficiency of Nigerian banking sector. This finding supports the submissions of previous studies such as, Oguda*et al.* (2015) who found a positive significant relationship between fraud success and internal control weaknesses; Aditoloye*et al.* (2016) and Enife*et al.* (2016) who found staff capabilities and management integrity as a strong influence on fraud perpetration and prevention.

H_0: Information security breaches have no significant effect on the fraud risk management efficiency of Nigerian banking sector.

H_1: Information security breaches have significant effect on the fraud risk management efficiency of Nigerian banking sector.

the findings revealed that the coefficient information security breaches is significant and equally indicated negative effect on fraud risk management efficiency -0.497603, the t-statistics of -3.43 > 2 and P-value of 0.006 < 0.05 which is significant at 5% significance level. Resultantly, the study accepts the alternate hypothesis, which states that internal control bypasses have significant effect on fraud risk management efficiency of Nigerian banking sector. The finding of this study is in agreement with the findings of Dzomira (2014) who found cyber and electronic fraud as a big challenge to financial institutions; Baz *et al.* (2017) who found a significant relationship between external fraud threats and fraud prevention in Saudi Arabia; and Kanu and Nwadiubu (2020) who found electronic payment fraud as a huge challenge to Nigerian banks.

H_0: Fraud risk governance has no significant effect on the fraud risk management efficiency of Nigerian banking sector.

H_1: Fraud risk governance has significant effect on the fraud risk management efficiency of Nigerian banking sector.

the findings revealed that the coefficient fraud risk governance is statistically insignificant and equally indicated positive effect on fraud risk management efficiency 0.1081059, the t-statistics of 1.79 < 2 and P-value of 0.083 > 0.05 which is not significant at 5% significance level. Therefore, the study accepts the null hypothesis, which states that fraud risk governance has no significant effect on fraud risk management efficiency of Nigerian banking sector. This finding negates the finding in Mohd-Nassir *et al.* (2016) who found a significant positive relationship between fraud risk governance and fraud risk management in Malaysia; Ssekanwa and Ssendagi (2019) who found a statistical positive significant influence of fraud risk governance and fraud risk management; and Nyakarim*et al.* (2020) who found the effect of fraud risk governance factors on fraud risk management are statistically significant but positive in Kenya.

4. Conclusion

Malicious insider abuses have no significant effect on the fraud risk management efficiency of banks in Nigeria. Internal control bypasses have no significant effect on the fraud risk management efficiency of banks in Nigeria. Information security breaches have no significant effect on the fraud risk management efficiency of banks in Nigeria Fraud risk governance has no significant effect on the fraud risk management efficiency of banks in Nigeria. The results indicated the coefficient of fraud risk governance = 0.1081059, the t-statistics of 1.79 < 2 and P-value of 0.083 > 0.05 which is not significant at 5% significance level

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