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**Accounting Software and Financial Irregularities in Selected Deposit Money  
Banks in Nigeria**

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**Abstract**

*Purpose:*

The study examined the nexus between accounting software and financial irregularities using some selected deposit money banks in Nigeria. Specifically, the study examined the extent by which banks' fraud is detected, reduced and prevented by deployment of accounting software.

**Methodology:** The study population comprised of 13 money deposit banks listed on the Nigeria stock exchange as at 31<sup>st</sup> December 2020. 70 respondents were sampled from 7 of the banks randomly selected from the entire population. Data was obtained using a well-structured questionnaire. Data collected were analyzed using descriptive statistics and analysis of variances.

*Findings:*

Findings disclosed significant relationship exists between accounting software and detection, reduction and prevention of banks financial irregularities. Though available statistics reflected an increase in both the number as well as amount of bank frauds, the study inversely showed that deployment, review and continuous upgrade of accounting software has been able to detect, reduce as well as prevent fraud in Nigerian Banks.

*Recommendations:*

Based on the study's findings, it was suggested that banks should fund research into fraud management while at the same time investing more in highly sophisticated software that will be able to eliminate residual loopholes in banking operations that fraudsters often take advantage of to perpetrate fraud. They should engage in training and retraining of their employees while they

should introduce more stringent measures in their staff recruitment exercise to reduce engagement of staff with high tendency for fraud.

**Keywords:** Accounting software, Bank, Financial irregularities, Fraud management

**JEL Classification:** G21

## **1.0 Introduction**

Globally, the banking sector witnessed a commercial revolution that has made it an onerous task to continue running a manual accounting system in recording accounting transactions of operators within the sector. With the revolution comes the introduction of robust banking applications and accounting software which has transformed how the mainframe activities of the bank (customers, management and accounting information) are carried out, eradicating problems associated with manual system and in effect instituting improved, efficient and fast services (Daru, 2015).

Thottoli (2020) noted that the introduction of accounting software brought changes to financial accounting process (data entry, storage and financial statement preparation); as well as internal control. While the aforementioned can be viewed as having positive impact on banking operations, there are obvious pitfalls and challenges that could arise from it, including the financial impact of such pitfalls on the organization (Turner et al., 2020). The replacement of manual accounting system by computer-based brings about risk of on-line fraud (Arnestesa, 2018). There are also complexities in familiarization with the system, system failure and error or fraud that could accompany its implementation.

The Chartered Institute of Public Finance and Accountancy, United Kingdom defined fraud as an intentional distortion of financial statement or otherwise, for personal benefit. The International Auditing Guidelines (IAG) defines fraud as a type of irregularity, involving the use of deceptions to obtain an illegal or unjust advantage, which involves alteration, manipulation or falsification of figures or documents.

Fraud has eaten deep into the banking operations of the Nigeria banks in spite of numerous regulations put in place by government to avert the occurrence of fraud being perpetuated by the bank staff. It is unarguable to say fraud is an epidemic in Nigeria (Olaoye & Dada, 2014). Oseni (2006) cited in Olaoye and Dada (2014) argued that continuous perpetuation of frauds in Nigerian banks has casted doubt in the mind of the stakeholders in the industry regarding reliability of banks audited accounts. Whereas, Oseni and Idolo (2010) stressed that the spate of fraudulent activities in banking industry in Nigeria has prompted law enforcement agencies to declare war against fraud perpetrators to stop the industry from being source of embarrassment to the country.

However, it is pertinent to note that most of the frauds perpetuated in Nigerian banks are electronic in nature since the introduction of automated banking system in Nigeria banking

industry in the early 2000 (Onodugo, 2015). The upsurge of e-fraud in Nigerian companies (banks inclusive) is worrisome to service providers and users of electronic payment platforms to carry out their normal economic activities. Some of the fraudulent activities relating to E-banking fraud being perpetuated include phishing, fishing, social engineering, password cracking, denial of service, identity theft, breaching online security by means of manipulating account holders by fraudsters (NDIC, 2018; Omariba, 2019).

Following Brar et al., (2012), Mostafa and Ibtihal (2019) classified fraudulent activities into three: this includes remote, local, and hybrid fraud. Remote fraud attempts to intercept or redirect the victim without modifying their hardware facilities. It includes (a) phishing (where fraudster impersonates a server by setting up a fake version of the bank's mobile application or its website); (b) fishing (the criminal contacts his victim and tricks them to reveal confidential information using social engineering) (c) cloned voice-banking systems: This arises where an attacker clones the voice-banking systems, which makes them appear official and uses it to solicit customer cooperation with intent to defraud them. A local fraud might occur in form of shoulder surfing, where attacker observes the Personal Identification Number (PIN) of a potential victim bank's card, before the actual perpetration of the fraud. Finally, hybrid fraud, as a form of fraudulent acts encompasses other fraudulent activities (remote and local explained earlier). Such attacks involve releasing of trojan to breach the security of a computer system, so as to perform malicious act. All of this calls for appropriate fraud management.

Fraud management basically implies measures put in place by management, in the prevention, identification, detection and providing timely and appropriate response to fraudulent activities. In a bid to perhaps prevent and detect unscrupulous transactions in Nigerian banks, many banks resulted to integration of fraud detection software into their core systems to serve as a guard against themselves and their customers against fraud. According to Integrated Banking Fraud Detection Software (2020), banks can easily catch fraudsters and improve the inflow of their credit worthy customers with seismic enhancements in fraud detection software. Banks of today are vulnerable to fraud since bank transactions can be done without having face-to-face interactions with bank officials. Virtually all commercial banks in Nigeria make deposit and account opening process more seamless, convenient and consequently exposed to risk of online fraud. With mobile deposit software for instance, fake logo, suspicious signatures, smooth edges and other irregularities associated with mobile deposit can be detected.

In the same vein, good banking software is arguably better at identifying and preventing fraud than human (Integrated Banking Fraud Detection Software, 2020). Such software unravels secrecy in financial data and prevents untrusted transactions before fraud can happen. Similarly, reliable banking software is expected to prevent banking institution as well as its customers from becoming victims of fraudsters. The software should be able to have access to large volume of data, accurately identify patterns and analyze trend.

In spite of benefits embedded in accounting software, it is saddening that the software is under-utilized by most organizations in Nigeria including banks due to perhaps the unwillingness of top

management to declare war against frauds enthusiastically. Moreover, they often give more attention to fraud identification and detection, as against fraud prevention and without giving appropriate and timely response to such illegal act. Researchers similarly observed that fewer studies in the existing literature on the use of accounting software as part of anti-fraud measures in banking industry have been carried out by researcher in Nigeria.

The study of this type is topical as fraud in banking industry is alarming and sensitization of internal control officers, auditors, fraud examiners and forensic accountants about the usefulness of accounting software in fraud detection is imperative. Empirical findings therefore will educate stakeholders in fraud management on the need to get trained about accounting software, with the need to uncover computer based related fraud in banking industry in Nigeria. This study also outline how management can respond to fraud, which has been previously detected and identified, with the use of accounting software. Thus, the broad objective is to examine accounting software and fraud management in the banking sector. Specifically, the study sought to:

1. examine the impact of accounting software on prevention of frauds in some selected commercial banks in Nigeria; and
2. assess the impact of accounting software on reduction of frauds in some selected commercial banks in Nigeria.
3. investigate the impact of accounting software on detection of frauds in some selected commercial banks in Nigeria.

## **2.0 Literature Review**

### *2.1 Review of Concepts*

#### 2.1.1 Fraud

According to Idowu (2009), fraud can be described as a deliberate camouflage, falsification, or exclusion of what is known to be the truth in order to present a dishonest or stage-managed front or information that may result to financial damage to an organisation or an individual. It is an act of cheating targeted at causing a person or business to unknowingly give up possessions or some lawful right to an illegal cause or person. The Association of Certified Fraud Examiners (1999) in their own stead, defines fraud as the use of one's profession to gain personal enhancement by the conscious misuse, misapplication or employment of company property or possessions. In the words of Fadipe-Joseph and Titiloye (2012), fraud is any actions through which a person purpose to gain a deceitful advantage over another person. In summary, fraud is an act of commission or omission deliberately planned to unlawfully benefit one person to the detriment of another.

Criminologists agree that fraud is caused by three elements called "WOE" (Idolor, 2010). They believe that for any fraud to take place, there must be a Will, an Opportunity and Exit (escape route). Fraud only occurs, if the perpetrators have the will (or intention) to commit the fraud, if the occasion to commit the fraud is present and if there is a way out or escape means from appropriate sanctions or institutions that are against fraud or related abnormal behaviour. Fraud

is a global occurrence; it is not peculiar to the banking industry or for that matter, peculiar to only Nigeria (Adeoti, 2011)

### 2.1.2 Computerized Accounting System (CAS)

Marivic, (2009) described a computerized accounting system as a method or scheme by which financial information on business transactions are recorded, organized, summarized, analyzed, interpreted and communicated to stakeholders through the use of computers and computer-based systems such as accounting packages. He emphasized that it's a mechanized process of facilitating financial information flows as well as the automation of accounting tasks such as database recording and report generation. Marivic adds that keeping accurate accounting records is a vital part of any organization. Apart from helping it to keep its float financially and legal, it is a requirement of funding bodies or donors. According to Abiahu (2014), computerized accounting system involves the use of computers and computer capabilities in the performance of accounting functions in any company. To Frank Wood and Alan, (2005) it is the total suit of components that together comprises all inputs, collection, storage, processing, and reporting of financial transaction data.

According to Ezeagba (2017), "the place of sound accounting and internal control systems in any business, irrespective of its scale, cannot be overemphasized". According to McBride, (2000) computerized packages can quickly generate all types of reports needed by management for prompt strategic decision making, for instance budget analysis and variance analysis. Frankwood and Sangester (1999) consented that computerized accounting system allow managers to easily identify and solve problems instantly.

## 2.2 *Computer-based fraud in the Nigerian Banking Industry*

There is no gainsaying that fraud of different classifications and dimensions occur in the Nigerian banking industry. According to Nwankwo (2005), as cited in Udeh and Ugwu, (2018), the increasing rate of fraud poses threat to the growth and stability of individual financial institutions and the industry at large This was collaborated by Odi (2013) where he asserts that fraud in banks has shaken the foundation and credibility of most banks in Nigeria, resulting in some of them being distressed.

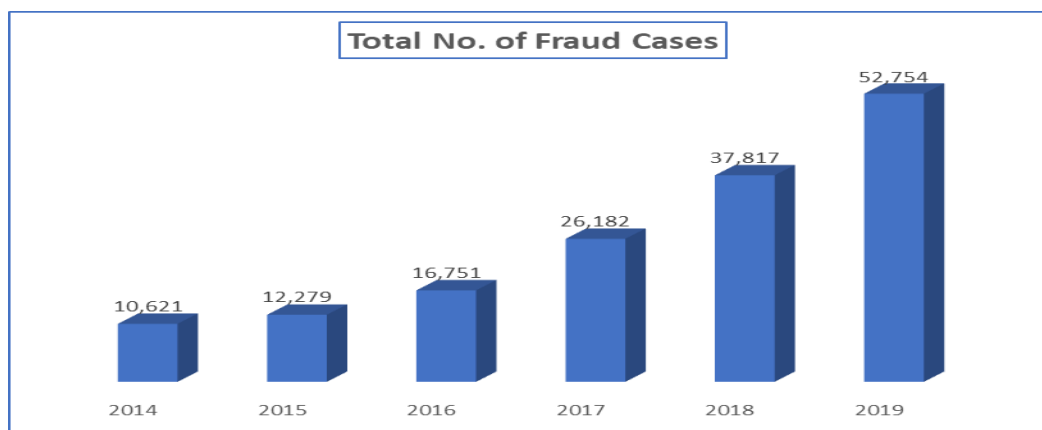
Table 1, Figure 1 and Figure 2 showed the trend of fraud cases and amount lost to fraud cases in Nigeria between the year 2014 and 2019. The table and figures revealed a steady increase in the number of fraud cases reported in Nigerian banks from 2014 to 2019. On the amount side, while a steady increase in number of cases were being recorded, a steady decline in amount involved was recorded between 2014 and 2016, after that, there was over 200% increase in amount lost to fraud between 2017 and 2018 and an astronomical 500% increase between 2018 and 2019. A further drill down of this abnormal increase revealed that there was a total of N191 billion amount involved in fraud in the third quarter of 2019 alone (NDIC Annual Report, 2019).

Table 1: Total No. of fraud cases and amount involved in Nigerian banks

YEAR	Total No. of Fraud Cases	Total Amount Involved (N'm)
2014	10,621	25,608
2015	12,279	18,021
2016	16,751	8,683
2017	26,182	12,012
2018	37,817	38,926
2019	52,754	204,652

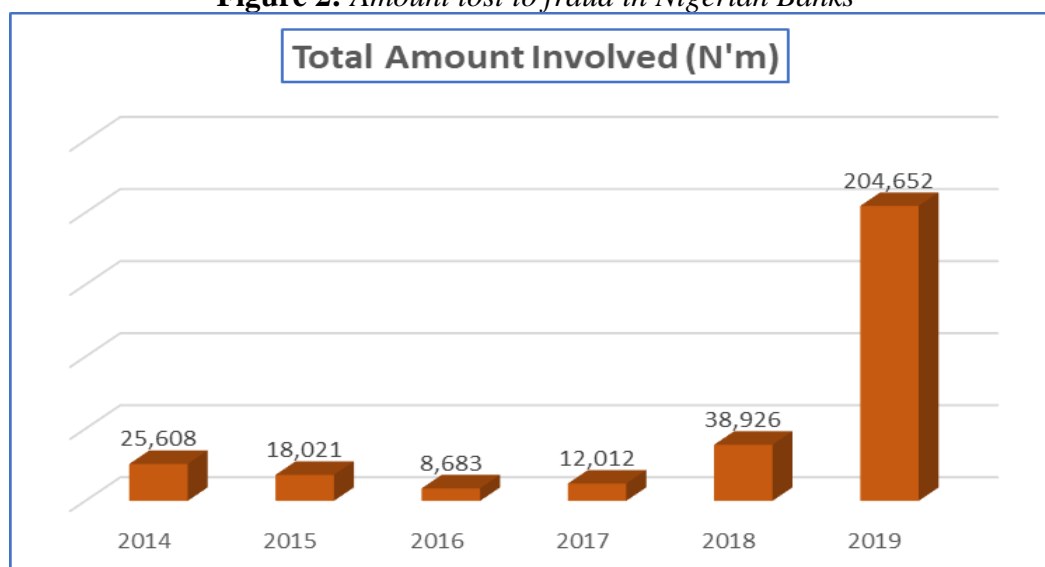
Source: NDIC Annual Report (2019).

Figure 1: Fraud cases in Nigerian Banks



Source: Authors' Work (2022).

Figure 2: Amount lost to fraud in Nigerian Banks



Source: Authors' Work (2022).

### *2.3 Theoretical Framework*

Theories underpinning this study are: fraud triangle and fraud diamond theory.

Fraud Triangle Theory as propounded by Cressey (1953) stated three factors that lead to the commitment of any type of fraud by perpetrators. These are pressures, opportunities and rationalization. Though these variables and character traits are usually assumed, but are real to e-fraud perpetrators (Albrecht et al. 2008). The fraud triangle theory is much relevant to this study as it directly relates to the core of basic background reasons for the continuous perpetration of fraud in the Nigerian Banking Sector.

Pressure can either be financial or non-financial. Financial pressures could be in the form of payment for house rent, children school fess, buying a car and financial pressure to meet immediate and extended family needs to such ego-driven factors such as meeting up with colleagues' status, buying expensive wears and being seen to be spending in the right circle, financial demand from lovers etc. Non-financial pressure could be the need to produce a creative report for the branch, given that it has been profiled as a profit center, work pressure, peer pressure and need for acceptance.

Opportunity can come through weak internal control, lack of consistent job rotation, the concentration of key roles on temporary or contract employees, knowledge of customers' sensitive financial information and account balances, weak cybersecurity infrastructure from where employees can glean security codes of customers, and bypass cybersecurity infrastructure through expertise knowledge. Finally, perceived rationalization occurs when the perpetrator of fraud rationalizes his fraudulent act as being acceptable. For internal fraud in Nigerian banks, perpetrators mostly rationalize fraudulent acts on inadequate salary/remuneration or the need to meet branch performance targets. Rationalization also comes in the form of low societal standard and general prevalence of negativity, so it is common to say, "all of us are guilty, everyone is doing it". Finally, top management is a mirror with which the other staff look at the corporate standard of the organisation, so if they see top management in shoddy deals, it comes in handy as a rationalization to other rank and file to follow suit, hence the need for good corporate governance and transparency from top management.

The Fraud Diamond Theory was introduced by Wolfe and Hermanson in the December 2004 CPA Journal. In this theory, they introduced a fourth variable to the fraud triangle's three-elements, and called it – capability. The theory opined that even with the prevalence of the three variables listed in the fraud triangle theory, without capability it may be impossible for a would-be fraudster to successfully commit fraud. They thus advanced the thought that the potential fraudster must have the ability and needed skill to effect the fraud. The theory averred that an individual's capability, ability and personal trait will play a major role in eventual commission of any fraud (Salawu, 2019).

Wolfe and Hermanson (2004) further identified several features that enhance the capabilities of potential fraud perpetrators. First, occupying a position of authority or function within an organization allows individuals to exert influence and access resources. Second, these



individuals often possess the ability to exploit the weaknesses in the organization's internal control systems, making it easier to commit fraud. Third, a certain level of boldness is necessary, as these perpetrators tend to undertake fraudulent actions with the belief that they will not be discovered. Lastly, strategic positioning and the opportunity to conceal fraudulent activities for extended periods significantly contribute to their success in evading detection.

Again, when carefully considered vis-à-vis, fraudulent activities and reports from Nigerian banks, it is clear that these traits are readily available to bankers in the case of insider-dealing, especially management fraud.

#### *2.4 Empirical Review*

Many researchers have studied fraud in general, particularly as it is prevalent in the banking sector. For instance, Dragomir and Zoran (2019) conducted a study in Serbia on the use of software tools for fraud detection and prevention in government and external audit organizations. Using simple percentage and frequency counts, they reported that none of the institutions studied had specialized modules for fraud detection, concluding there was a low degree of fraud control, especially in state institutions.

Udeh and Ugwu (2018), in their paper titled "Fraud in the Nigerian Banking Sector," adopted an ex-post facto research design. They collected data from 2006 to 2015 on fraud, bank profit, bank assets, and bank deposits, analyzing it through descriptive analysis and Ordinary Least Squares (OLS) regression analysis. Their findings revealed a negative but insignificant relationship between fraud and bank profit, indicating that bank profits continued to rise despite an increase in fraud. Furthermore, the amount involved in fraud did not significantly impact bank profits. They recommended that banks should be mandated to disclose amounts involved in fraud in their financial statements and to promote good corporate governance.

Elumaro and Obamuyi (2018) studied the relationship between card fraud and customer confidence in alternative banking channels in Nigeria. They found that e-fraud creates uncertainty in the financial ecosystem, which subsequently erodes trust in alternative banking channels. In their 2017 study, Enofe, Abidogun, and Omoolorun applied an OLS regression model in their paper on fraud prevention measures in Nigeria's banking industry. They concluded that a strong internal control system, good corporate governance, and adherence to banking ethics positively and significantly aid in preventing fraud within the banking sector.

Amahala, Abiahu, and Obi (2017) conducted a comparative analysis of computerized versus manual accounting systems in Nigerian microfinance banks. They concluded that computerized accounting improved performance in banking operations by adhering to accounting guidelines, which minimized risks and challenges and enabled the development of effective measures for success. Tade and Adeniyi (2017), examining ATM fraud in Southwest Nigeria using descriptive statistics, concluded that factors such as illiteracy, ill-health, and misplaced trust in relatives and friends contribute to victimization. Fraudsters used tactics such as ATM card swapping, card



cloning, and physical attacks during late-night withdrawals to commit fraud, often seizing victims' mobile phones to prevent them from seeking help.

Ibor (2016) investigated the involvement of bank employees in fraud in Nigeria, using the OLS method. The study concluded that 77% of fraud cases involved insiders, with the remainder attributable to external actors, and found that officers were responsible for a larger share of fraud losses than other staff categories. Olaoye and Dada (2014) used simple percentages and frequencies in their study on the nature, causes, effects, detection, and prevention of bank fraud in Nigeria. They concluded that sound internal controls, checks, balances, adequate remuneration, and discouragement of frequent downsizing are essential for fraud prevention.

In 2013, Ajala, Amuda, and Arulogun evaluated the internal control system as a preventive measure against fraud in Nigeria's banking sector. Using product-moment correlation and regression analysis, they found that the internal control system played a significant role in preventing fraud in Nigerian banks.

Akinyomi (2012) examined fraud and its prevention in Nigeria's banking sector, utilizing t-tests for data analysis. The study concluded that greed is a primary cause of fraud, as most employees viewed their remuneration as inadequate. It was also observed that bank staff were involved at all stages of fraud, including initiation, execution, and concealment. In like manner, Trinandha, Ghosali, and Fuad (2018) conducted a study in Indonesia on the potential impact of accounting information systems on computer accounting fraud. Using logistic regression for data analysis, they found that the risks associated with accounting information systems positively influenced the intention to commit computer-accounting fraud.

Numerous studies have explored the prevalence of fraud within the banking sector, revealing critical insights into the factors contributing to financial irregularities. For instance, Dragomir and Zoran (2019) highlighted the lack of specialized fraud detection tools in Serbian institutions, while Udeh and Ugwu (2018) found a negative but insignificant relationship between fraud and bank profits in Nigeria. These findings underscore a low level of fraud control, emphasizing the need for improved transparency and governance measures. Additionally, studies by Elumaro and Obamuyi (2018) and Enofe, Abidogun, and Omoolorun (2017) have pointed to the importance of robust internal controls and corporate governance in combating fraud.

Despite this existing body of knowledge, there remains a significant gap in understanding the specific impact of accounting software on financial irregularities within Nigerian deposit money banks. While previous research has addressed various factors influencing fraud—such as employee involvement and the risks associated with e-fraud—few studies have examined how modern accounting software can enhance the detection and prevention of these irregularities. As banks increasingly adopt automated systems to improve efficiency and accuracy in financial reporting, evaluating the effectiveness of these systems in mitigating financial misconduct becomes paramount.

This study aims to fill this gap by investigating the effect of accounting software on financial irregularities in selected deposit money banks in Nigeria. By exploring the relationship between advanced accounting tools and their effectiveness in identifying and addressing financial discrepancies, this research seeks to provide valuable insights that can inform banking practices and policy-making. Ultimately, the findings will contribute to the development of a more secure banking environment, fostering trust and confidence among stakeholders while addressing the ongoing challenges of financial irregularities in the sector.

### **3.0 Methodology**

The researchers adopted descriptive survey design through the administration of questionnaires through internet using Google form. The study's population consisted of 13 listed deposit money banks on the floor of Nigeria stock exchange as at 31<sup>st</sup> December 2020. Random sampling technique was used to select seven (7) deposit money banks from the entire population. Purposive sampling technique was then used to select 10 respondents from the selected banks. Data obtained were analyzed using frequency counts, percentages and regression analysis method.

### **4.0 Analysis and Discussion**

#### *4.1 Demographic Analysis of Respondents*

To achieve the research objectives, the study utilized data obtained from the responses provided by the respondents. Out of the 70 respondents, 54% of them were males while 46% were females; 33, which represents majority of the respondents were found within the age bracket of 21-30 years while 14, 10, 8 and 5 respondents were found with the age range of 31-40 years, 41-50 years, below 21 years and 51 years and above; 49 which represents majority of the respondents had first degree (BSc/HND), 15 respondents had post graduate/professional qualifications (MSc, Phd, CIBN, ICAN, CIS) and 6 respondents had below first degree; majority, (36) of the respondents had 11-20 years' work experience while 21, 11 and 2 respondents had below 10 years, 21-30 years and 31 years and above work experience respectively. Finally, 26 of the respondents were internal control officers, while 23 and 21 were accountants and 21 management/operations staff respectively.

#### *4.2 Descriptive Analysis of Research Hypotheses*

##### **4.2.1 Research Hypothesis One:**

To what extent are banks' financial irregularities detected by the use of accounting software?

Table 2 shows the extent at which banks' financial irregularities are detected by the use of accounting software. The mean score of 2.94 implies majority of the respondents agreed that accounting software is a very effective tool in detecting banks' financial irregularities. Also, the mean score of 2.56 means accounting software is capable of detecting all forms of bank's financial irregularities. Similarly, the mean scores of 3.07, 2.74 and 3.08 in Table 2 is an indication that majority of the respondents were of the opinion that accounting software is a

specialized tool with the objective of detecting financial fraud, previous review of accounting software reports have helped to unravel perpetrators of fraudulent activities in the bank and accounting software is capable of detecting frauds and irregularities not detected by manual accounting. Based on popular opinions of the respondents, it can be concluded that accounting software has helped in detecting banks' financial irregularities to a large extent.

Table 2: Accounting software and banks financial irregularities detection

S/N	ITEMS	SA (%)	A (%)	D (%)	SD (%)	Mean	SD
1	Accounting software is a very effective tool in detecting bank's irregularities	22 (31.4)	28 (40)	14 (20)	6 (8.6)	2.94	0.93
2	Accounting software is capable of detecting all forms of bank's irregularities	16 (22.9)	23 (32.9)	15 (21.4)	16 (22.9)	2.56	1.06
3	Accounting software is a specialized tool with the objective of detecting corporate fraud	26 (37.1)	28 (40)	11 (15.7)	5 (7.1)	3.07	0.91
4	Previous review of accounting software reports have helped to unravel perpetrators of fraudulent activities in the bank	15 (21.4)	33 (47.1)	11 (15.7)	11 (15.7)	2.74	0.97
5	Accounting software is capable of detecting frauds not hitherto detected by manual accounting	32 (45.7)	21 (30)	8 (11.4)	9 (12.9)	3.08	1.05

Source: Researcher (2022)

Agree (Mean>2.5), Disagree (Mean<2.5)

4.2.2 Research Hypothesis Two:

To what extent are banks' financial irregularities reduced by application of accounting software?

Table 3 shows the extent at which banks' financial irregularities are reduced by application of accounting software. The mean score of 2.84 means larger percentage of the respondents agreed to the assertion that accounting software not only detects irregularities but also reduce financial irregularities to a large extent. Similarly, the mean score of 3.06 shows majority of the respondents were of the opinion that accounting software reduces engagement of employees or organizations in fraudulent activities. Also, the mean score of 2.88 implies frequent upgrade of accounting software has the potency of reducing banks' financial irregularities. Lastly, the mean scores of 2.79 and 3.11 in table 3 is an indication that majority of the respondents agreed that reduction in financial irregularities can be attributed to the use of accounting software, indicating that if not, financial irregularities attributable to the banks and its officials would have been far greater than it is presently, and agreed that accounting software is the best tool to reduce

financial irregularities in banks. Based on popular opinions of the respondents, it can be concluded that accounting software is really instrumental in reducing banks' financial irregularities to a large extent.

Table 3: Accounting software and banks financial irregularities reduction

S/N	ITEMS	SA (%)	A (%)	D (%)	SD (%)	Mean	SD
1	Accounting software not only detects irregularities but also reduce financial irregularities	25 (25.7)	21 (30)	12 (17.1)	12 (17.1)	2.84	1.10
2	Accounting software reduces engagement of employees or organizations in fraudulent activities to large extent	31 (44.3)	22 (31.4)	7 (10)	10 (14.3)	3.06	1.06
3	Frequent upgrade of accounting software has the potency of reducing bank's financial irregularities	23 (32.9)	25 (35.7)	13 (18.6)	9 (12.9)	2.89	1.02
4	Reduction in financial irregularities is attributable to the use of accounting software by banks	23 (32.9)	23 (32.9)	10 (14.3)	14 (20)	2.79	1.03
5	Accounting software are best tools to reduce financial irregularities in banks	24 (34.3)	34 (48.6)	8 (11.4)	4 (5.7)	3.11	0.82

**Source:** *Researcher (2022)*

#### 4.2.3 Research Hypothesis Three:

To what extent are banks' financial irregularities prevented by deployment of accounting software?

Table 4 shows the extent at which banks' financial irregularities are prevented by the deployment of accounting software. The mean score of 2.79 in table 4.2.3 implies majority of the respondents believed that accounting software also focuses on preventing banks' financial irregularities. In addition, the mean score of 3.04 shows that majority of the respondents agreed that accounting software is expected to prevent all forms of banks' irregularities. Similarly, the mean scores of 2.76 is an indication that majority of the respondents were of the opinion that financial irregularities cannot be prevented out rightly whether accounting software are deployed or not. Also, the mean score of 2.99 means majority of the respondents agreed that (despite the available statistics of an increase in both frequency and value of frauds), the extent by which accounting software has prevented banks' financial irregularities in recent times is high. Lastly, the mean score of 3.24 in table 4 implies larger percentage of the respondents opined the expectation of an entity when deploying accounting software is to put an end to financial irregularities. Based on

popular opinions of the respondents, it can be concluded that accounting software has helped in preventing banks' financial irregularities to a large extent.

Table 4: Accounting software and banks financial irregularities prevention

S/N	ITEMS	SA (%)	A (%)	D (%)	SD (%)	Mean	SD
1	Accounting software also focuses on preventing banks' irregularities	19 (27.1)	29 (41.1)	10 (14.3)	12 (17.1)	2.79	1.03
2	Accounting software is expected to prevent all forms of banks' irregularities	26 (37.1)	29 (41.1)	7 (10)	8 (11.4)	3.04	0.97
3	Financial irregularities cannot be prevented out rightly whether accounting software are deployed or not	24 (34.3)	19 (27.1)	13 (18.6)	14 (20)	2.76	1.13
4	The extent by which accounting software has prevented bank's irregularities in recent times is high	26 (37.1)	26 (37.1)	9 (12.9)	9 (12.9)	2.99	1.01
5	The expectation of an entity when deploying accounting software is to put an end to financial irregularities	29 (41.4)	32 (45.7)	6 (8.6)	3 (4.3)	3.24	0.79

Source: Researcher (2022)

#### 4.3 Inferential Analysis of Research Hypotheses

**H<sub>01</sub>:** There is no significant relationship between accounting software and detection of banks' financial irregularities

The coefficient of correlation (r) of 0.911 shown in Table 5a implies 91% detection of banks financial irregularities is attributed to the use of accounting software while remaining 9% are other measures outside the model that can be used to detect banks financial irregularities. The regression equation is obviously useful in making prediction since (r) is close to 1. Also, ANOVA value of 333.601 with sig. value of 0.000 less than 0.05 at degree of freedom 3, 96 shown in Table 5b is an indication that significant relationship exists between accounting software and detection of banks financial irregularities. Thus, hypothesis 1 is rejected.

Table 5a Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.911 <sup>a</sup>	.831	.828	.38579

a. Predictors: (Constant), Accounting software

Table 5b ANOVA<sup>a</sup>

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	49.651	1	49.651	333.601	.000 <sup>b</sup>
	Residual	10.121	68	.149		
	Total	59.771	69			

a. Dependent Variable: Banks Financial Irregularities detection

b. Predictors: (Constant), Accounting software

**H<sub>0</sub>2:** There is no significant relationship between accounting software and reduction in banks financial irregularities

The coefficient of correlation (r) of 0.914 shown in Table 6a implies 91% reduction in banks financial irregularities is attributed to application of accounting software while remaining 9% are other measures outside the model that can be used to reduce banks financial irregularities. The regression equation is ostensibly useful in making prediction since (r) is close to 1. Also, ANOVA value of 346.965 with sig. value of 0.000 less than 0.05 at degree of freedom 3, 96 shown in Table 6b is an indication that significant relationship exists between accounting software and reduction in banks financial irregularities. Thus, hypothesis 2 is rejected.

Table 6a Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.914 <sup>a</sup>	.836	.834	.44796

a. Predictors: (Constant), Accounting software

**Table 6b** ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	69.626	1	69.626	346.965	.000 <sup>b</sup>
	Residual	13.646	68	.201		
	Total	83.271	69			

a. Dependent Variable: Banks Financial Irregularities Reduction

b. Predictors: (Constant), Accounting software

**H<sub>0</sub>3:** There is no significant relationship between accounting software and prevention of banks financial irregularities

The coefficient of correlation (r) of 0.829 shown in Table 7a implies 83% prevention of bank financial irregularities is attributable to application of accounting software while remaining 9%



are other measures outside the model that can be used to prevent banks financial irregularities. The regression equation is obviously useful in making prediction since (r) is close to 1. Similarly, ANOVA value of 149.774 with sig. value of 0.000 less than 0.05 at degree of freedom 3, 96 shown in Table 7b is an indication that significant relationship exists between accounting software and prevention of bank financial irregularities. Thus, hypothesis 3 is rejected.

Table 7a Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.829 <sup>a</sup>	.688	.683	.58208

a. Predictors: (Constant), Accounting software

b.

Table 7b ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	50.746	1	50.746	149.774	.000 <sup>b</sup>
	Residual	23.040	68	.339		
	Total	73.786	69			

a. Dependent Variable: Bank Financial Irregularities Prevention

b. Predictors: (Constant), Accounting software

### 5.0 Summary, Conclusion and Policy Implications

The aim of the study was to examine the nexus between accounting software and financial irregularities using some selected deposit money banks in Nigeria. Specifically, the study examined the extent by which banks' financial irregularities are detected, reduced and prevented by deployment of accounting software. The study population comprised of 13 commercial banks listed on the Nigeria stock exchange as at 31<sup>st</sup> December 2020. The study sampled 70 respondents from 7 sampled banks from the entire population. Data was obtained using a well-structured questionnaire. Data collected was analyzed using descriptive statistics such as, charts, frequency counts, percentages, mean and standard deviation as well as ordinary least square regression analysis of inferential statistics. Findings disclosed significant relationship exists between accounting software and detection, reduction and prevention of banks financial irregularities. Though available statistics continues to show an increase in both the number as well as amount of bank frauds, the study inversely showed that deployment, review and continuous upgrade of accounting software has been able to detect, reduce as well as prevent financial irregularities in Nigerian Banks. One can only ask what would have been the reality if there had not been the adoption of accounting software by money deposit banks in Nigeria.

Based on the study's findings, the underlisted were recommended with the view to further tackling financial irregularities and fraud in deposit money banks in Nigeria; Banks should fund research into highly sophisticated software that will be able to eliminate residual loopholes in banking operations that fraudsters often take advantage of to perpetrate fraud. Banks should continuously upgrade both their hardware as well as their software and invest in continuous training for bank employees to stem the tide of frauds in the banking sector of Nigeria's

economy. Apart from these, recommendations are also made in line with the component/enabling variables according to the fraud diamond theory as follows:

1. Pressure: Banks should introduce more stringent measures in their staff recruitment exercise to reduce engagement of staff with high tendency for fraud.
2. Opportunity: Banks should introduce more internal control measures to strengthen their fraud management process.
3. Rationalization: Management should entrench good corporate governance and run transparent management style, so as to avoid giving room for rationalization of fraudulent activities by their staff.
4. Capability: Rules should be applied to all. There should be no sacred cow or anyone above the law as this is an enabler for capability to overrun the system and take advantage to commit fraud.

### **References**

- Abiahu, M.F.C. (2014). *Practical Approach to Accounting Information System Development* (2nd Ed.). Awka: One Way Technologies Limited.
- Adeoti, J. O. (2011), Automated Teller Machine (ATM) Frauds in Nigeria: The Way Out”, *Journal of Social Sciences*, 21(1), 53-58.
- Akinyomi, O. J. (2012). Examination of Fraud in the Nigerian Banking Sector and Its Prevention. *Asian Journal of Management Research*, 3, 184-192.
- Ama, G.A.N. (2004). *Simplified financial accounting*. Nigeria: John Jacob’s Classic Publishers Ltd.
- Amahalu, N.N., Abiahu, M.C., Okika, E.C. and Obi, J.C. (2016). Determinants of capital structure: Empirical evidence from quoted electrical and electronic technology firms in Nigeria (2010-2015)
- Association of Certified Fraud Examiners (1999), Report on the Nation Occupational Fraud and Abuse, available at <http://www.efenet.com/summary>, accessed during June 2012.
- Elumaro, A. J., & Obamuyi, T. M. (2018). Cards Frauds and Customers’ Confidence in Alternative Banking Channels in Nigeria. *European Scientific Journal*, 14, 40-60.
- Ezeagba, C. (2017). Financial reporting in small and medium enterprises (SMEs) in Nigeria: Challenges and options. *International Journal of Academic Research in Accounting, Finance and Management Sciences*. 7(1), 1-10.
- Fadipe-Joseph, O. A., & Titiloye, E. O. (2012), Application of Continued Fractions in controlling Bank Fraud, *International Journal of Business and Social Science*, 3(9), 210-213.
- Frankwood and Alan, S. (2005). *Business accounting* (19th Ed.). London: Pitman Publishers
- Ibor, B. (2016). An Investigation of Human Resources Nexus to Frauds in the Nigerian Banking Sector. *International Journal of Scientific and Research Publications*, 6, 231-247.
- Idolor, E. J. (2010), Bank Fraud in Nigeria: Underlying Causes, Effects and Possible Remedies, *African Journal of Accounting, Economics, Finance and Banking Research*, 6(6), 62
- Idowu, I. (2009), An Assessment of Fraud and its Management in Nigeria Commercial Banks, *European Journal of Social Sciences*, 10(4), 628-640.

- Maidique, M. and Zirger, B. (1984). A study of success and failure in product innovation: The case of the US electronic industry. *Harvard Business Review*, 61, 192-203.
- Marivic, A. (2009). Evaluating the security of computerized accounting information systems. An empirical study on Egyptian banking industry, PhD. Thesis. Aberdeen University, UK
- Marivic, A. (2009). Evaluating the security of computerized accounting information systems. An empirical study on Egyptian banking industry, PhD. Thesis. Aberdeen University, UK
- McBride, P. (2000). Guide to computerizing your accounting system. Retrieved on March 20th, <http://www.erc.msh.org/mainpage.cfm?>
- Rogers, E.M. (2003). *Diffusion of innovations (5th Ed.)*. New York: Free Press
- Salawu, R. O. (2019). *Fraud Detection and Prevention: The Role of the Reporting Company and the External Auditors*. In Candido Da Rocha Memorial Lecture during the 8th Convocation Ceremonies for the Award of Postgraduate, First and Honorary Degrees of Osun State University (pp. 1-55). Osogbo: UNIOSUN Printing Press.
- Schumpeter, J. (1934). *The theory of economic development*. Cambridge, MA: Harvard University Press.
- Tade, O., & Adeniyi, O. (2017). Automated Teller Machine Fraud in South-West Nigeria: Victims Typologies, Victimisation Strategies and Fraud Prevention. *Journal of Payment Strategy and Systems*, 11, 1-7.
- Trinandha, A., Ghazali, I. & Fuad (2018). Understanding the Potential Impact of Accounting Information System to Computer Accounting Fraud. *International Journal of Engineering Research and Technology*. ISSN 0974-3154 Volume 11, Number 2 (2018), pp. 191-200. <http://www.irphouse.com>
- Udeh, S. N., & Ugwu, J. I. (2018). Fraud in Nigerian Banking Sector. *International Journal of Academic Research in Business and Social Sciences*, 8(5), 589–607.
- Xuelin, D. (2018). Analysis on the Fraud and Countermeasures of Accounting Computerization. *Advances in Computer Science Research (ACSR)*, volume 83, 382-385