

## Effects of forensic auditing, internal control system and whistle blowing on fraud detection and prevention in tertiary institutions in south west, Nigeria

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### Abstract

*The study investigates the impact of forensic auditing, internal control system and whistle blowing on fraud prevention and detection in Nigerian tertiary institution. The study utilized survey research design to select 236 respondents from six federal government universities across Southwest, Nigeria, specifically University of Lagos (UNILAG), Federal University of Agriculture Abeokuta (FUNNAB), University of Ibadan (UI), Obafemi Awolowo University (OAU), Federal University of Technology (FUTA) and Federal University Oye-Ekiti (FUOYE) using total enumeration sampling technique. The study processed the data got in the field using statistical package for social sciences (SPSS) software and investigate using multiple regression analysis. Based on the analysis of the study, the results uncovered that forensic auditing ( $t = 5.495$ ;  $P 0.00 < 0.05$ ) has positive and significant impact on fraud prevention and detection; internal control ( $t = 3.712$ ;  $P = 0.00 < 0.05$ ) has positive and significant impact on fraud prevention and detection; whistle blowing ( $t = 3.144$ ;  $P 0.02 < 0.05$ ) has positive and significant impact on fraud prevention and detection in tertiary institution in Nigeria. The study reasoned that forensic auditing, internal control and whistle blowing have positive and significant impact on fraud prevention and detection in tertiary institution in Nigeria.*

**Keywords:** 1.Forensic auditing, 2.internal control, 3.whistle blowing, 4.fraud prevention and detection, 5.Nigeria.

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### 1. Introduction

Fraud is defined as a premeditated act by the culprit to get something that does not belong to him. It is frequently carried out by insiders and outsiders who are at the point of obtaining information with the goal of stealing, manipulating, and causing havoc in an organization in order to secure properties, tangible assets, and even items without authorized authorisation (Okute and Enah, 2019). According to the International Standard on Auditing (2009), fraud is defined as a purposeful act involving the use of deception to acquire an unjust or illegal advantage by one or more individuals among management, those responsible with governance, employees, or third parties. Individuals, as well as businesses and tertiary institutions, can be victims of fraud. Tertiary education is a branch of education tasked with building human and intellectual capital in order to make students useful to themselves, their families, society, and the nation at large.

However, due to fraudulent acts perpetrated by employees, the vice-team, chancellor's auditors, accountants, the governing council, committee members, and even students of various associations, this goal has been curtailed in recent times due to a shortage of resources, facilities, and manpower.

According to studies, accounting fraud has spread throughout tertiary institutions, posing a threat to progress. Accounting crimes in Nigeria's higher institutions have proven to be a danger to the development and proper functioning of the institutions, according to Chidumaga (2017). Staff squabbles have been reported over the misappropriation and embezzlement of funds intended for development projects and salaries of academic and administrative staff by school administration, which may have made it impossible for the institutions to fully equip themselves with the necessary infrastructure and learning facilities. The Economic Financial Crime Commission (EFCC) has been observed inviting prior Vice Chancellors to address inquiries about costs committed while in office on numerous occasions. "It is inundated daily with petitions from students, staff, unions, and other stakeholders alleging all manner of corrupt practices and abuses in most tertiary institutions," the Independent Corrupt Practices and Other Related Offences Commission (ICPC) admitted, admitting the facts about fraud in tertiary institutions (Punch, September 12, 2017).

For any economy to thrive and grow, it is critical to prioritize the education sector, which requires sufficient resources to teach and retrain employees and students. As a result, the education sector must be not only stable and dependable, but also effective and efficient (Njanike, 2009). This is in light of the fact that an adequate education sector is a panacea for economic growth (Owolabi, 2010). This means that the education sector is a place where people build their homes, lives, and jobs, all of which contribute to national growth. Despite the vital role the education sector plays in nation development, a rising number of examples of fraudulent activities in the field are leading to a loss of trust and confidence among many stakeholders in the sector. Because of the high rate of increase in corruption, misappropriation of funds, mismanagement of public assets, financial irregularities, lack of transparency, frauds, and fraudulent activities in the Nigerian education sector, internal and external monitoring mechanisms such as forensic auditing, internal control, and whistle blowing were required (Ojaide as cited in Nuhu, Salisu and Kofarnaisa, 2017; Federal Ministry of Finance, 2016).

These procedures are important since traditional auditing has lost its effectiveness as a preventative measure, and there is a lack of integrity, which is an essential quality of an auditor. This implies there is need to devise various method for handling extortion thinking about the kinds of cheats, culprits, the method of execution, and the obligations of outer inspectors as cherished in the overseeing resolutions. In light of this, legal inspecting and inner control came to the front. Whistleblowing is seen to have developed because of specific arising misrepresentation related cases and the expanding refinement of monetary extortion requires that whistle blowing be added to the apparatuses important to achieve the fruitful examination and indictment of those people engaged with crimes (Nwosu, 2015; Ukoma, 2019). It is against this setting that the review tries to inspect the effect of forensic auditing, internal control and whistle blowing on reducing fraud detection and prevention and in tertiary institution in Southwest, Nigeria.

What rouse this exploration are sparse investigations completed on forensic auditing, internal control and whistle blowing on fraud prevention and detection in tertiary institutions in Nigeria setting. Up until recently, the current subject has gotten observational documentations from conspicuous researchers in Nigeria. Enofe, Omagbon and Ehigiator (2015), Nuhu, Salisu and Kofarnaisa (2017), Kamau, Kariuki and Musuya (2017), Olaoye and Dada (2017), focused on forensic auditing and internal control on extortion rehearses in financial industry; Fasua and Osifo (2017), Adetula and Amupitan (2018), Emeka-Nwokeji, Olofinlade, Dada and Ajayi (2021), Ukoma (2019), Awotomilusi and Ogunleye (2021) talked about discussed whistle blowing and internal auditing on fraud in banking sector; Ogiriki and Appah (2018), Emeka-Nwokeji, Okeke and Ojimba (2019), Osagioduwa (2019) investigated on forensic auditing and whistle blowing respectively on fraud in public sector; moreover, Okafor, Adebisi, Opara and Okafor (2020) Agbogun, Odunze and Onuora (2021) zeroed in on whistle blowing and responsibility in public sector. Obviously, the researcher observed that the component of forensic auditing, internal control and whistle blowing have not gotten joint exertion in writing

which this study considers. Additionally, related and applicable examinations have significantly centered consideration on banking area and public area disregarding tertiary institutions as though fraud practices don't exist in schooling area. In a further exploration, Okute and Enah (2019) inspected auditing reform on fraud control in tertiary institutions in Cross River State, Nigeria. Evidently, the review was thought of as in one of the states in South-south region with auditing component only, while, this study will consider the three mechanisms, that is, forensic auditing, internal control and whistle blowing on fraud detection and prevention in tertiary institutions in Southwest area which has not gotten experimental documentation to the best of the researcher's information and in view of studies within reach. Hence, the review tends to analyse the impact of forensic auditing on fraud detection and prevention in Tertiary Institution in Southwest, Nigeria; research the impact of internal control on fraud detection and prevention in Tertiary Institution in Southwest, Nigeria and look at the degree to which whistle blowing influence fraud detection and prevention in Tertiary Institution in Southwest, Nigeria.

The scope of the study cut across the entire 6 federal universities in Southwest, Nigeria, namely, University of Lagos (UNILAG), Federal University of Agriculture Abeokuta (FUNNAB), University of Ibadan (UI), Obafemi Awolowo University (OAU), Federal University of Technology (FUTA) and Federal University Oye-Ekiti (FUOYE), the essence of this choice is to determine whether the mechanism of forensic auditing, internal control and whistle blowing will have the same result since it is federal government initiatives. The other section of the paper addressed the literature review, methodology, result and discussion as well as conclusion.

## **2. Literature Review**

### **2.1 Forensic Auditing**

Forensic auditing is the three-sided practice of using accounting, auditing and insightful abilities to aid legitimate issues (Nwosu, 2015). It is a specific field of accounting that depicts commitment that result from real or expected debates or prosecution. Forensic auditing can, in this way, be viewed as a part of accounting that is appropriate for legitimate survey and offering the most elevated level of affirmation (Apostolou, Hassell and Webber 2000). Put in another manner, forensic auditing is an action that comprises of get-together, checking, handling, investigating of, and providing details regarding information to acquire realities and proof in a predefined setting in the space of legitimate/monetary questions and/or anomalies and offering preventive guidance (Ukoma, 2019). The goals of forensic reviewer was counted by Eyisi and Abgaeze (2014) to include: further developing administration responsibility; working on corporate administration and the legal review work; further developing monetary revealing framework; help in recognizing monetary fraud; help in reinforcing examiners autonomy; giving extra affirmation to review boards and helping fiscal summary evaluators to assume more prominent liability for the detection of fraud and unlawful demonstrations while auditing budget report because of the way that one more arrangement of inspectors (forensic evaluators) would be fundamentally assessing their job; giving the review panels better instruments to assess the nature of the budget summary review by the outside examiner. The above goals as per them could be said to strongly affect establishment, since the forensic inspector is relied upon to go past ordinary review as to look for fraud and research further utilizing more modern logical insightful devices and programming bundles to distinguish fraudulent exercises executed by the administration and their workers or fraud which the outside reviewer has possible schemed with the administration to cover.

### **2.2 Internal control**

The open-door component in the elements causing fraud can be stifled by internal control (Tuanakotta, 2007). As per Amrizal (2004), one thing that can assist with forestalling fraud is to make a decent internal control structure. How much data that has been talked about with respect to thought processes in submitting fraud has made administration reasonable so fraud doesn't emerge. The board is needed to set up a sound

and compelling internal control structure, assess and carry out parts of internal control to forestall fraud in the element. Internal control is along these lines a cycle intended to shape the certainty of the element's leading body of magistrates, the executives and other faculty to create three goals, to be specific: (a) dependable monetary reports; (b) activities that run viably and proficiently; (c) conform to material laws and guidelines. Internal control expects to guarantee organization the executives to: 1) Achieve the objectives set by the organization; (2) Reliability on the results of fiscal summaries by the organization; and (3) The organization's exercises are as per lawful laws and guidelines (Reschiwati, Putri and Anwar, 2021).

### **2.3 Whistle Blowing**

As of late, whistle blowing has been very much perceived generally as one of the noticeable instruments that could help great administration and degenerate free climate (Oyebade, 2016). It involves uncovering bad behaviour or ill-advised direct inside an association to those in power or to the public. At the point when it is executed in an association, it builds up moral conduct among representatives. To blow the whistle is to alarm an outsider that somebody has done or is accomplishing something wrong. In a real sense, whistle blowing implies that one makes commotion to make others aware of unscrupulous conduct/bad behaviour (Emeka-Nwokeji, Okeke and Ojimba, 2019). Asian Institute of Management (2006) referred to in Oyebade (2016) consider whistle blowing as the detailing of a wrong doing that should be remedied or ended to ensure public interest. That is, the cycle by which people raises reservations at work. It could likewise mean the exposure by an individual, typically a worker in an administration office or private endeavour to the public or those in power, of bungle, defilement, lawlessness or another bad behaviour (Ogunkeye, 2016). In single word, this definition infers that by blowing whistle one cautions the organization to the way that its partners are in effect unjustly hurt. It should be noted and set up that overall objections/complaint that actually influence an individual doesn't correspond with the person being referred to rather the public. Rohde-Liebena (2006) verifies further that, such exercises which might incorporate grumblings and complaints, criticism, reconnaissance, source/witness, slander and reprimand are almost comparable yet not equivalent to whistle blowing.

### **2.4 Fraud detection and Prevention**

Fraud is purposefully lying or cheating to acquire a benefit or to cause another person to experience a misfortune. Put in an unexpected way, fraud is an erroneously addressing of a matter or a reality whether by words or by direct, by bogus or deluding claims, or by camouflage of what ought to have been spread the word about that tricks and is expected to misdirect another so the singular will follow up on it to her or his legitimate physical issue (Adetula and Amupitan, 2018). Relationship of Certified Fraud Examiners (ACFE), (2020) grouped fraud into three classifications, specifically; debasement, resource misappropriation, and fiscal summary fraud. Defilement incorporates offenses like pay off, coercion, unlawful tips, payoff, intrigue, and irreconcilable circumstances. By and large, it includes the unfair utilization of impact to acquire a benefit for the entertainer or another person, as opposed to the obligation or the privileges of others (ACFE, 2015). Resource misappropriation, which includes and representative abusing or taking the assets of the association. Greater part of fraud cases come in this classification, though, frauds in fiscal summaries are submitted by the means wherein the culprit purposefully causes a material error or oversight in the budget reports.

To keep away from fraudulent tasks in the public sector, Singal, Nagi and Goyal (2019) contended that an extremely impressive internal control instrument is required, joined with the most cutting-edge auditing strategies. Khan, Abdul Rafay and Shakeel (2020) fight further that with regards to the prevention, ID, and evaluation of fraudulent demonstrations, the internal review job is significant. Notwithstanding, Okoye, Fia and Fsm (2013) found that in the public sector, the use of forensic bookkeepers can aid better recognizing and staying away from fraud episodes. Murti and Kurniawan, (2020) featured the internal control shortcomings as a wellspring of fraud. In spite of the fact that fraud won't ever be completely disposed of, public sector associations can utilize internal controls to forestall and distinguish it. To stay away from fraud,

public sector the board should have the option to bring issues to light and utilization of hostile to fraud culture at all levels of the association. In accordance with Omar and Bakar, (2012) observed the fraud misfortunes are a major issue for organizations. As a result, the critical protection against fraud and misuse is to create and deal with the internal control framework. Murti and Kurniawan (2020) thought that fraud prevention is significantly impacted by internal controls in public sector. Administrative associations ought to make against fraud mindfulness. Fraud related stages of preparation and courses are likewise extremely successful for public sector work force.

## 2.5 Theoretical Framework

The improvement of a model for fraud the board in the public sector is one of the review's objectives. There have been a few fraud speculations proposed in the past like Fraud Triangle Theory of Gressey (1950) and the Fraud Diamond Theory by Wolfe and Hermanson (2004) (Mansor and Abdullahi, 2017). Notwithstanding the three perspectives laid out by Gressey's fraud triangle: felt pressure, saw a valuable open door, and legitimization, there is an extra component called "limit that was presented by Wolfe and Hermanson. Pressure, opportunity, justification, and capacity are the most notable fraud components, and they are totally found in most fraud occurrences. Fraud in the public sector has risen quickly as of late (Rizvi and Ahmed 2021).

This study is driven by the police officer hypothesis and the normal movement hypothesis. Under the police officer hypothesis, it is expected that the forensic examiner is a cop whose essential concern is to the detection and prevention of fraud to diminish the general instances of revealed corporate fraud occurrence (Ittonen, 2010). Then again, the normal movement hypothesis expects that for fraud to happen in a business, there should be a harmony in existence of a possible wrongdoer, an appropriate objective, and the shortfall of an able guard with working internal control component against fraud event (Felson and Clarke, 1998). The hypothesis in this way expects the presence of a fraudster and the need to utilize the administrations of a forensic evaluator to assist with recognizing warnings and fabricate proficient and compelling internal control component for the association to forestall fraud.

## 2.6 Empirical Studies

Enofe, Omagbon and Ehigiator (2015) analyzed the effect of forensic review on corporate fraud in Nigeria. The survey method was utilized and questionnaires planned and circulated to gather the required information, while the information was investigated utilizing ordinary least square (OLS) regression technique. The review inferred that the successive use of forensic review administrations will altogether help in the detection, prevention just as decrease of rates of fraud in and organizations.

Nuhu, Salisu and Kofarnaisa (2017) researching the impact of internal accounting control, top supervisory group attributes, review council characteristics on the monetary fraud prevention. An example of 200 and 74 (274) respondents were chosen from the internal review and the internal control unit staff of fifteen (15) cited banks in Nigeria. The chief instruments utilized with the end goal of this study are questionnaire and yearly report and record of the example banks. The Structural Equation Modelling (SEM) was utilized and the result shows that internal accounting control framework and the review advisory group quality doesn't impact monetary fraud prevention of the cited DMB banks in Nigeria. Top supervisory crew emphatically influence monetary fraud prevention of the cited DMB banks in Nigeria.

Kamau, Kariuki and Musuya (2017) investigated the different inspirations behind spillage of internal review reports in public sector in Kenya. The review utilized essential information got from 23 internal inspectors randomly chosen from the public sector. Pearson coefficient of connection and numerous straight regressions were utilized as logical techniques. Proof from the results showed that there was a critical impact of staff disappointment, pay, revealing constructions, strategy structure, public assurance and individual conviction on data spillage in the public sector in Kenya.

Olaoye and Dada (2017) analyzed the effect of inspectors caught by hazard evaluation, framework review and confirmation of monetary report on financial fraud control in Southwest Nigeria. Statistical proof from various regression technique and ANOVA detailed that the degree of fraud control in Nigerian banks during the period covered was low, review jobs caught by hazard evaluation; framework review and confirmation of monetary reports were statistically huge in deciding the fraudulent demonstration in financial industry in Nigeria. It certified that hazard evaluation, framework review and monetary report checks are done to decide the viability and effect of inspectors on fraud control in Nigerian banks which uncovers that examiners' jobs should be improved to upgrade fraud control in financial industry.

Fasua and Osifo (2017) analyzed compelling whistle-blowing component and review advisory group in Nigerian financial sector. The review utilized a multi-variate regression technique as tool of analysis. Aordinary regression analysis is utilized to assess the connections proposed in speculations. The review predicts that the Nigerian financial sector with freer, meeting, master, and tenacious review boards are probably going to set up successful whistle blowing instrument. The review observed a solid relationship between powerful whistle blowing system in Nigerian financial sector and review advisory group freedom, review board of trustee's monetary ability, and review panel meeting. The result of discoveries uncovers that whistle blowing instrument in Nigerian financial sector should be fortified.

Adetula and Amupitan (2018) analyzed whistle blowing as a tool for fighting fraud, imitation debasement in Nigeria. Information were obtained from both essential and auxiliary sources, utilizing the review techniques, applying mean, standard deviation, regression and Pearson relationships as statistical tools for the analysis of information created through Statistical Package for the Social Sciences (SPSS). Result showed that there is a connection among fraud and whistle blowing, there is a connection among imitation and whistle blowing, there is a connection among debasement and whistle blowing and fraud, phony and defilement affect the Nigeria economy. The review presumed that whistle blowing is to be sure a powerful tool for fighting the threat of fraud, falsification and defilement in Nigeria.

Ogiriki and Appah (2018) exactly dissect the impact of forensic accounting and auditing techniques on public sector fraud detection, examination and prevention in Nigeria. The review utilized questionnaire for information assortment with regression analysis for theory testing. The review uncovered that the connection between forensic accounting and auditing techniques and public sector fraud detection, examination and prevention in Nigeria is very critical. The review presumed that forensic accounting and auditing techniques is a significant panacea to the degree of fraudulent exercises experienced in the Nigerian public sector.

Karuti, Mwaniki and King'oriah (2019) utilized Analysis of change (ANOVA), Pearson coefficient of relationship and regression statistics to set up the strength and length at which forensic accounting approaches impacted fraud control in region government in Kenya. The review closed a direct straight connection between Forensic Accounting arrangements and fraud control.

Emeka-Nwokeji, Okeke and Ojimba (2019) analyzed whistle blowing as a vital condition for fraud prevention and detection in Nigerian public organizations. Study configuration was utilized. Populace comprises of representatives of public organizations with enlisted office in Anambra. Out of 132 questionnaires was managed and examined utilizing graphic statistics, one example t-test and Pearson item second relationship coefficient. Analysis gives proof that whistle blowing program is huge in lessening fraudulent exercises in public organizations; that is, there is huge connection between whistle blowing regulation and fraud prevention and detection in public organizations. The result likewise shows that fundamental components of whistle blowing have not been as expected set up in public organizations.

Ukoma (2019) talked about the impact of forensic auditing in diminishing fraud cases in Deposit Money Banks (DMBs) in Nigeria. Questionnaires, individual meetings, and record survey were the strategies that were utilized to acquire information. An example of 48 bank inspectors, functional chiefs and senior supervisors were utilized from sixteen DMBs in Nigeria. Ordinary Least Square (OLS) regression was utilized to analysis the information and it was found that forensic auditing administrations is essentially connected

with the internal control frameworks and money the executives' frameworks of DMBs yet not altogether connected with credit handling and reimbursement framework.

Anya and Iwanger (2019) look to analyze the law and practice of whistle blowing strategy in Nigeria opposite what is reachable in certain locales. It presents that the current lawful practice is deficient to fortify the approach in Nigeria. The review saw that except if a few worldwide standards and practices are embraced, the battle against defilement in Nigeria through the whistle blowing strategy might be counterproductive.

Okute and Enah (2019) analyzed the impact of auditing change on fraud control in tertiary institutions in Cross River State, Nigeria. Study research configuration was embraced for study. An organized scientist made questionnaire named Auditing and Fraud Control in Tertiary Institution Questionnaire (AFCTIQ) was the instrument for information assortment. Direct regression test was utilized and uncovered that internal, forensic and outer auditing altogether impacts fraud control in tertiary institutions. In view of the discoveries, the review reasoned that to lessen fraudulent exercises, auditing, be it internal, forensic and outer review could be used.

Osagioduwa (2019) researched the viability of the whistle blowing strategy in fighting debasement in the Nigerian public sector. The review was done in Delta, Edo, Enugu, and Anambra States individually. Overview configuration was utilized in the review. A sum of one hundred and two (102) examiners and 162 bookkeepers were inspected in the public sector. Critical Sampling Technique was utilized in choosing the 264 respondents in the four states' public associations. The Pearson Product Moment Correlation Coefficient (PPMCC) was utilized and results uncovered that the whistle blowing strategy is successful in fighting defilement in the public sector of Nigeria. The concentrate therefore reasoned that the whistle blowing strategy have been compelling in fighting defilement in the public sector.

Bangura (2020) concentrated on the Forensic accounting techniques and fraud prevention in Sierra Leonean cash store banks. The regression gauges show the impact of forensic accounting techniques on corporate administration, internal control, and whistle blowing which demonstrates that the forensic accounting techniques have a positive huge impact on corporate administration, forensic accounting techniques have a positive huge impact on internal control additionally forensic accounting techniques have a positive huge impact on whistle blowing separately of the overviewed Sierra Leonean store cash banks.

Madzivire, Nyamwanza, Mushonga, Takachicha and Mulonda (2020) investigated the effectiveness of forensic review as a tool for the detection and prevention of fraudulent activities using a Chartered Accountancy Company in Zimbabwe as a case study. Sums of 19 questionnaires were recovered from 20 copies distributed using random sampling. Various regression method was utilized and information was presented using visual charts and tables supported by explanations. The research uncovered that there is a positive relationship between preparing, level of instruction and capacity to identify and forestall fraud. It was also observed that suit support service has a tremendous job to carry out in the effectiveness of forensic auditing in distinguishing and forestalling fraud.

Okafor, Adebisi, Opara and Okafor (2020) investigates the challenges and opportunities for the sending of whistle blowing as a responsibility mechanism to control defilement and fraud in an agricultural nation with emphasis on Nigeria. Utilization of mean descriptive statistics was used and it investigated that, even with regards to an agricultural nation, whistle blowing is supported as a responsibility mechanism, however the mediation lacks awareness, presents a high risk to whistleblowers and regulators, including the risk of physical end, and is full of institutional and functional challenges. Basically, awareness of whistle blowing laws, functional challenges and an institutional climate helpful for dishonesty sabotage the adequacy of whistle blowing in Nigeria.

Agbogun, Odunze and Onuora (2021) investigated the impact of whistle blowing on responsibility in the public sector. To accomplish this unbiased, the study took on ex post facto design. An aggregate of 150 copies of questionnaire were administered out of which 145 were recovered. Direct regression model was established and the findings demonstrated that there is a significant relationship between whistle blowing

mechanism and responsibility in the public sector association. The study concludes that whistle blowing mechanisms should be supported and pertinent Acts should be applied judiciously.

Nwaobia, Omotayo and Ajibade (2021) analyzed the internal auditor's qualities of ICT ability skill, capability and experience and autonomy and their immediate impact on the detection of fraudulent monetary announcing in banks. The study utilized a cross-sectional survey design with populace of 471 employees in the internal review departments of selected 10 banks in Nigeria. A structured and approved questionnaire was used to gather information from a sample of 216 internal auditors. The study uncovered that internal review positively and significantly affects detection of fraudulent monetary revealing and internal auditors' qualities significantly directed the impact of internal review on the detection of fraudulent monetary detailing. It was reasoned that internal review is apropos in controlling the rate of fraudulent activities in the Nigeria banks.

Rizvi and Ahmed (2021) presented the worldwide perspective on frauds based on quality research published in sway factor Journals just and nearby scenario based on master reflections from review, accounting, operations and the board personnel being the stakeholders of the existing system who witnessed the peculiarities inside out. The subjective study was finished using interpretive approach, suggesting blended method and leading interviews, survey and focus bunch for information assortment and analysis. The study is significant for legislature, public sector the board, accounts and review professionals and can be used for limit working of public sector employees and for creating strategy system

Reschiwati, Putri and Anwar (2021) examined the factors that impact fraud prevention in the financial sector in Indonesia. The study distributed questionnaires to internal auditors, review committees, who work in banks listed on the Indonesia Stock Exchange through purposive sampling method. The results showed that internal auditors, internal control, review board, free commissioners, the executive's ethical quality, and dependability of data systems significantly affect fraud prevention.

Awotomilusi and Ogunleye (2021) assessed the effectiveness of whistle blowing strategy on fraud prevention and detection on listed Deposit Money Banks in Ekiti State, Nigeria. The information (questionnaire) was inspected using chi-square, analysis of change ANOVA, and numerous straight regression which expressed a positive and significant relationship between whistle blowing strategy and observing and alleviation of the board and outsider fraud in Nigerian deposit cash banks, as well as a significant effect on the checking and relief of representative fraud in Nigerian deposit money banks.

## **2.7 Gap in Extant Literature**

Fraud is as old as man and has been seen as foe of progress in an institution, it is imperative to curtail it before it ends an organisation. Among the tools of checking fraud are forensic auditing, internal control and whistle blowing. Literatures have it that these tools have been used in empirical research separately, however has not gotten successive joint (forensic auditing, internal control system and whistle blowing) usage which this study consider quintessential. However, where a couple of these tools have been utilized, there is scanty exertion in Nigerian tertiary institution which is the bedrock of this study. Fraud exists in each association, as such, institutions is not an exclusion. Subsequently, the need to investigate the job of forensic review, internal control system and whistle blowing on fraud prevention and detection in Nigeria Tertiary Institution becomes a worry to the study.

## **3 Methodology**

### **3.1 Research Design, Population and Sample size**

The study took on survey research design which was based on the allowance of questionnaire to evoke information from the respondent. The questionnaire contained different close-finished questions. In gathering the information for the study, questionnaire was administered among selected worker of government universities in Southwest, Nigeria. The populace for the study covered all the 236 internal audit

and bookkeeper staff of the government universities in Southwest. The study applied total enumeration sampling technique to select every one of the 236 members of staff in internal audit and bookkeeper offices in the selected universities in Southwest, Nigeria.

### 3.2 Measurement of Variables and Source of Data

**Fraud Detection and Prevention:** This variable is measured using an instrument quoted from the BPKP Pusdiklatwas in Mulinda (2017) consisting of 5 indicators, namely: (1) Implementation of anti-fraud policies; (2) the values applied by the company (3) strict HR screening; (4) Implementation of segregation of functions within the organization; (5) The role of an effective internal audit & audit committee

**Internal control:** This variable is measured using an instrument quoted from COSO (2013) with 5 dimensions, namely: (1) Control environment (2) risk assessment (3) control activities (4) Information and communication and (5) Monitoring

**Forensic auditing:** This variable is measured using an instrument adopted from Madzivire, Nyamwanza, Mushonga, Takachicha and Mulonda (2020) with 6 dimensions namely: (1) financial investigation (2) skills and level of education (3) experience (4) litigation support (5) training and (6) resources

**Whistleblowing:** The variable is measured using an instrument adopted from Emeka-Nwokeji, Okeke and Ojimba (2019) with 3 indicators, namely, (1) programme (2) legislation (3) legal provision

The studied variables were sourced from primary data that is questionnaire.

### 3.3 Model Specification, Estimation Technique and *Apriori* Expectation

The study specially referenced Madzivire, Nyamwanza, Mushonga, Takachicha and Mulonda (2020) model as the basis for the model specification. Their model was stated as:

$$FDP = f(FOAUD) \tag{1}$$

Where: FDP = Fraud detection and prevention and FOAUD = forensic auditing

However, the model was augmented by including parameters of internal control and whistle blowing in order to capture the objective of the study. Hence, the model for the study is stated as:

$$FPD = f(FAUD, INC, WHBW) \tag{2}$$

Stating the equation in notation form, it therefore becomes

$$FPD = \alpha_0 + \beta_1 FAUD + \beta_2 INC + \beta_3 WHBW + e_t \tag{3}$$

Where; FDP = Fraud detection and prevention; FAUD = Forensic auditing; INC = Internal control; WHBW = Whistleblowing; f=functional notation;  $\alpha_0$  = Constant,  $\beta_1 - \beta_3$  = beta coefficients;  $e_t$  = error term.

The main test considered in the study is multiple regression analysis. The study proxied forensic auditing, internal control and whistle blowing as the independent variable while the dependent variable is fraud detection and prevention. It is expected that forensic auditing, internal control and whistle blowing would have positive and significant effect on fraud detection and prevention. That is,  $\beta_1 > 0$ ;  $\beta_2 > 0$ ;  $\beta_3 > 0$ .

Multiple regression analysis was used to analyze and test the relationship between the dependent and independent variables to test the hypotheses, answer the research question and achieve the objective of the study.

## 4 Result and Discussion

### 4.1 Test of Hypotheses

The study presents the null hypotheses which were tested using the regression analysis.

**Hypotheses:** Forensic auditing, internal control and whistle blowing will not significantly affect fraud detection and prevention in Nigeria tertiary institution.

**Table 1: Regression Coefficients**

		Coefficients <sup>a</sup>				
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	10.763	.041		18.496	.000
	Forensic auditing	1.095	.038	.108	5.495	.000
	Internal control	4.130	.035	.153	3.712	.000
	Whistleblowing	3.114	.036	.132	3.144	.002

a. Dependent Variable: Fraud detection and prevention

Source: SPSS 25, 2022

From the Table 1, the following regression equation was established

$$FDP = 10.763 + 1.095_{FA} + 4.130_{INC} + 3.114_{WBLW}$$

The result in table 1 expressly showed that forensic auditing has positive and significant effect on fraud detection and prevention in Nigerian tertiary institution which implies that a percent increase in forensic auditing brought about 10.95% increases in fraud detection and prevention in Nigeria. The coefficient of internal control is 4.130 which has the expected sign and result, that is, it has a significant and positively effect on fraud detection and prevention in Nigerian tertiary institution. This implies that 1% change in internal control system directly and substantially improves fraud detection and prevention in Nigerian tertiary institution. Furthermore, the coefficient of whistle blowing revealed a value of 3.114 which signified a positive and significant effect on fraud detection and prevention in Nigerian tertiary institution. Hence, a percentage increase in whistle blowing significantly yields to 31.14% in fraud detection and prevention in Nigerian tertiary institution. Thus, the study concluded that forensic auditing, internal control and whistle blowing mechanism are very instrumental and vital tools to detect and prevent fraudulent activities in Nigerian tertiary institution.

**Table 2: Result of Regression Analysis**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.896 <sup>a</sup>	.742	.737	.417

a. Predictors: (Constant), Forensic auditing, Internal control, Whistleblowing

Source: SPSS 25, 2022

The result in table 2 indicated that the model had a correlation value of 0.896, which manifests a good linear relationship between dependent (fraud detection and prevention) and independent variables (forensic auditing, internal control and whistle blowing). The  $R^2 = (0.742; p < 0.05)$  which depicted that 74% of the changes in dependent variable (fraud detection and prevention) was accounted for by the independent variable (forensic auditing, internal control and whistle blowing). The adjusted  $R^2$  shows the actual contribution of the explanatory variables (forensic auditing, internal control and whistle blowing) 73.7% to the dependent variable (fraud detection and prevention). The F value of 58.527 significant at .000 shows a good explanatory power of the independent variable. This showed that the model does not suffer from specification bias.

**Table 3: Analysis of Variance (ANOVA)**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.457	3	1.486	58.527	.000 <sup>b</sup>
	Residual	100.878	233	.174		
	Total	105.334	236			
a. Dependent Variable: Fraud prevention and detection						
b. Predictors: (Constant), Forensic auditing, Internal control, Whistleblowing						

Source: Field Survey Report, 2022.

The findings from the ANOVA help in indicating the weakness or the strength of the model. Findings obtained in the table 3 expressed the F-test value to be 58.527 with a significance value of 0.00 at 0.05 level of significance. Based on the rule of thumb, that, since the p-value 0.00 obtained was < 0.05, the F-test is significant hence the conclusion that the regression model was a good fit.

**4.2 Discussion and Implication of Findings**

The study investigated the effects of forensic auditing, internal control and whistle blowing on fraud detection and prevention in Nigeria tertiary institution with a case of federal government universities in Southwest area, Nigeria. The study was a result of the need to figure out which of the mechanisms among forensic auditing, internal control and whistle blowing upgrade more significant impact in deciding fraud detection and prevention in tertiary institutions in Nigeria. These variables were measured exclusively and multiple regression analysis was utilized on the variables.

Based on the result of the study, hypothesis one validates the finding of Madzivire, Nyamwanza, Mushonga, Takachicha and Mulonda (2020) that forensic auditing (training, resources, education, experience, financial investigation and litigation) significantly determines fraud detection and prevention in Tertiary institutions in Southwest, Nigeria. The ramifications arising from the result is that the more the auditors are prepared in the field of forensics, the better the quality of forensic auditing service advertised. The higher the degree of education possessed by an auditor the more successful the forensic audit service advertised. Consequently, the attributes possessed by the forensic auditors are still needed to distinguish fraud making the forensic auditor the right candidate to complete forensic engagements for purposes of effectiveness. These incorporate education, experience and training which assume an imperative part in the effectiveness of forensic audit. The research observed that litigation support is of central significance in the detection and prevention of fraud. It discourages unscrupulous direct inside abuse and an association henceforth forestalling questionable activities. Moreover, the research uncovered that the success of litigation in checking blackmail depends on the quality of data presented under the watchful eye of the court. A blend of data accumulated by the forensic auditor that can be presented in an official courtroom to settle progressing financial disagreements at the same time giving litigation support service forms the entire bundle of a powerful forensic audit.

The result of hypothesis is consistence with the finding of Reschiwati, Putri and Anwar (2021) that internal control system significantly enhances fraud detection and prevention. This result connotes that the higher internal control system an institution has, the more it tends to increase fraud prevention and detection. The result validates and avowed with the hypothesis of (Sawyer, 2005) that the internal control system in the institution can avert the possibility of the risk of fraud which could compromise the accomplishment of the business substance's objectives.

Lastly, the study provides exact proof that support Emeka-Nwokeji, Okeke and Ojimba (2019) observing that, whistle blowing programme is significant in lessening fraudulent activities in tertiary institution in Nigeria.

Whistleblowing programme by giving precise proof required by tertiary institutions for prosecuting fraudsters in addition to other things is a compelling fraud detection and prevention technique. It was also discovered that there is significant relationship between whistle blowing legislation and fraud detection and prevention in tertiary institution. Awareness of the legislation deflects individuals from submitting fraud. It was also accumulated that there is more prominent consistence to whistle blowing when there is legislation. Above all lawful provision of support and security to whistleblowers makes the Program more successful.

## **5 Conclusions**

Public sector, tertiary institutions, private institution and without a doubt the economy at an entire need critical recuperation tool from poisonous impact of fraud that has impacted the exhibition of institutions in Nigeria, thus, the study on impact of forensic auditing, internal control and whistle blowing as a tool to strengthen fraud detection and prevention is worse studied than now. Hints from members of staff are one of the significant ways to forestall and recognize fraud in any authoritative setting without which such fraudulent acts would go unrecognized to anybody. Proactively forestalling fraud, investigating suspicions of fraud and punishing those who submit fraud are among fraud preventive measures. Based on the analyses of information gathered and the understanding of results, the study established that fraud prevention and detection in Nigerian tertiary not entirely set in stone by various factors which incorporate forensic auditing, internal control and whistle blowing.

Consequent upon the findings and conclusion of the study, the researcher suggests the accompanying recommendations that could best assistance the employees, central government agents and the board of tertiary institutions:

The firm should establish a completely useful forensic audit division with sufficient resources needed by forensic auditors as the employees demonstrated that absence of resource is a hindering variable; it is trusted that the tertiary institutions will intensify work to screen and increase internal control system without which fraudulent practices will be on the increase by insider and outsider; expectedly, tertiary institutions would focus on how best to work on quality of internal control system to further develop fraud prevention and detection, so that the institutional goals can be accomplished; it is essential and of earnest significance that members of staff and concerned stakeholders be involved when whistle blowing program is being created or inspected and also give training on fraud awareness..

### **5.1 Contributions to Knowledge**

This study is remarkable contrasted with most of the existing studies on the subject in Nigeria. Specifically, the study:

- jointly investigates the role of forensic auditing, internal control and whistle blowing on fraud detection and prevention in tertiary institutions in Nigeria which has not been reported as at the hour of documenting this research, in contrast to, different studies that considered one/two variables in the literature;
- showed how elements of forensic auditing, internal control and whistle blowing would ensure fraud detection and prevention;
- contributed to information by focusing on universities not at all like most studies on financial sector.

### **5.2 Suggestions for Further Studies**

The ebb and flow research was done in Southwest district in Nigeria focusing on just government universities. Nonetheless, increasing the quantity of samples in a similar study to cut across government and state universities will help speculation of findings.

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