



An Investigation on the Effectiveness of Forensic Audit as a Tool for Fraud Detection and Prevention

Madzivire E.T.^{1*}

Nyamwanza L.²

Mushonga W.³

Takachicha M. T.⁴

Mulonda D.⁵

^{1,2}International Training College - Lingua, Namibia.

¹Email: emadzivire@gmail.com

^{3,4,5}Midlands State University, Zimbabwe.

Abstract

There has been a rapid increase in the number of fraud and corruption cases despite statutory audits being carried out. This led to the rise in demand for forensic auditing services and in response audit firms began offering this service. The audit firms however suffer from lack of adequate resources, training, knowledge and practical experience. Taking into consideration the impact of these factors this research sought to investigate the effectiveness of forensic audit as a tool for the detection and prevention of fraudulent activities using a Chartered Accountancy Company in Zimbabwe as a case study. The research utilized a mixed approach whereby quantitative data was gathered from closed ended questions quantified using the Likert scale. Qualitative data was gathered from open ended questions and 3 interviews were also conducted. A total of 20 questionnaires were distributed using random sampling, 19 were returned and one lost in the process. To analyze the data the multiple regression method was employed and data was presented using bar graphs and tables supported by explanations. The research revealed that there is a positive relationship between training, level of education and ability to detect and prevent fraud. It was also found that litigation support service has a huge role to play in the effectiveness of forensic auditing in detecting and preventing fraud. Recommendations were made towards increase in training sessions as well as engaging in training and development programs to fully equip auditors with knowledge.

Keywords:

Forensic audit
Fraud.

Licensed:

This work is licensed under a
Creative Commons Attribution 4.0
License.

Publisher:

Scientific Publishing Institute

Received: 4 August 2020

Revised: 8 September 2020

Accepted: 23 September 2020

Published: 12 October 2020

Funding: This study received no specific financial support.

Competing Interests: The authors declare that they have no competing interests.

1. Introduction

According to Okoye and Gbegi (2014); Mukoro, Yamusa, and Faboyede (2014); Aborbie (2015) and Bassey. (2018) the utilization of forensic accountancy fundamentally dissuades extortion both in the private and public sector as it is the forensic auditor's responsibility to avail credibility and independence to the fraudulent activities investigation. Okolie and Taiwo (2014); Onodi, Okafor, and Onyali (2015); Enofe, Olorunnuho, and Okporua (2016) and Popoola, Che-Ahmad, and Samsudin (2014) proceed to make reference to the fact that forensic auditors can recognize fraudulent activities better than traditional auditors whilst Nwanko (2014); Alabdullah (2014) and showed that both forensic and external auditors are of paramount importance as they both play a reviewing control of financial information with a goal of identifying extortion.

Moreover Rohana, Aris, Mardziyah, Zainan, and Amin (2015) added that forensic services, operational reviews, enhanced audit committees, upgraded internal controls are amongst the highly rated devices for forestalling fraud in the public sector. However Enofe, Omagbon, and Ehiglator (2014) differ on the adequacy of forensic audit in detecting fraud by uncovering its inability to detect fraud in the Nigerian administrations and stated that this has strong ramifications on comprehensive corporate administration. This view was upheld by Onodi et al. (2015) who accepted that the inadequacy is as a result of failure to get statutory support in Nigeria. In agreement (Huber, 2017) posited that the idea of the legitimate framework in the US has made forensic audit not so useful in fraud identification. Nevertheless these conclusions concentrated on the effect of legal support, nature of lawful frameworks on identification of extortion and furthermore differentiate external auditors and forensic auditors whilst disregarding the effects of experience, training and insufficient resources as showed in passing by Njanike, Dube, and Mashayanye (2014) who referenced that the forensic audit personnel are victims of lack of these factors. Mulling over the effect of experience, resource and training on the ability of forensic auditors to detect fraud, this study sought to research on the effectiveness of forensic audit as a tool for fraud detection and prevention.

Table-1. Clientele base.

Year	External Audit	Taxation	Accountancy	Forensic Audit	Total
2017	72	17	6	1	96
2018	80	17	16	-	113
2019	74	20	19	1	114

Table 1 above shows the percentage dominated by each service offered by a Chartered Accountancy firm on the clientele base. The firm specializes more in external audit as shown in Table 1 above. The external audit clientele base increased from 72 clients in 2017 to 80 clients in 2018 registering a 70, 8% clientele base in 2018. According to the Annual Progress Report (2018) the increase was as a result of the company accepting new engagements however the Annual Progress Report (2019) indicated that the decrease in the external audit clientele base from 80 clients to 74 clients in 2019 was as a result of having invested so much time and external audit personnel in the forensic audit engagement accepted in 2019 such that the external audit department was understaffed and unable to meet deadlines for the other clients. Engaging external auditors in a forensic audit is a problem according to Okoye and Gbegi (2014) who are of the notion that there is a critical distinction between external examiners and forensic examiners as external auditors do not or may not have sufficient training to handle fraudulent activities such as security frauds and embezzlement.

There have been fluctuations in the clientele base of the forensic audit department as shown in Table 1 above. The year 2017 had 1 forensic audit client representing 1.04% of the clientele base, this was followed by a 1.04% decrease in 2018 as the firm did not carry out any forensic audit engagements. According to the Annual Progress Report (2018) the decline was a result of the firm turning down a number of forensic audit engagement requests as they were complex and could possibly strain the firm’s resources as it had no adequate resources to carry out the audit. The year 2019 was followed by a 0.88% increase in the forensic audit clientele base and this according to the Annual Progress Report (2019) the forensic audit was successful in detecting fraud however it strained the firm’s resources and recommendations were made seeking to establish a fully functional forensic audit department specifically for forensic audits in the years to follow. Njanike et al. (2014) uncovered that majority of the forensic audit personnel are victims of numerous difficulties among them being insufficiency of material resources, specialized expertise and hazy acknowledgement of the profession.

According to the Chartered Accountancy firm Annual Progress Report (2017) the forensic audit carried out in 2017 was the firm’s very first forensic audit client, whilst there were no forensic audit clients in 2018 and only one client in 2019. The trend in forensic audit department shows that the firm has not had much exposure in the forensic field as it has only executed 2 forensic audits in a space of 3 years, this was supported by the Chartered Accountancy firm’s Annual Progress Report (2019) which indicated that the firm ought to establish a fully functional forensic audit department and also fairly allocate training sessions to all four departments of the firm regardless of what percentage it constitutes on the clientele base. However complaints from the staff engaged in the forensic audit indicated that they took more time than expected due to lack of practical business experience and lack of training in the forensic field, Staff Reports (2019). According to Nunn, Mcguire, Whitcomb, and Jost (2017) the foremost important skill is practical experience gained through ripening in the profession and also the experience of working on very challenging fraud cases in law enforcement agencies for several years offers invaluable knowledge.

The Chartered Accountancy Firm’s Training Log Book (2017) indicated that training sessions were to be held every Friday and out of the 52 Fridays in 2017 only 27 training sessions were held and all of them were on external auditing resulting in only 52% training sessions held. According to a Chartered Accountancy Firm’s Training Log Book (2017) there was 48% increase in the number of training sessions held from the 40 sessions in 2018 to the 49 sessions in 2019, 3 days which were excused because of public holidays. However 37 of these sessions were on external audit, 5 on taxation and 7 on grooming and deportment and none on forensic audit. According to Asare, Arnie, and Mark (2015) training seemed to carry a critical role in restricting forensic auditors from identifying and preventing fraud. This view was supported by Okoye and

Gbegi (2014) who posited that training and guidance is indispensable in maintaining potent strategies for the identification and prevention of extortion and corruption and the firm's reputation. Taking into account the impact of practical experience, training and resources, this research seeks to evaluate the effectiveness of forensic audit in fraud detection.

2. Literature Review

2.1. To Determine Circumstances that Prompted the Need for Forensic Auditing Services

2.1.1. Failure of External Auditors to Detect Fraud

According to Ng'ang'a (2015) the reputation of external auditing process has been raising questions in numerous nations as evidenced by the number of money related scandals and mega-fraud which prompted the downfall of many big organizations. This view was supported by Enofe, Ekpulu, and Ajala (2015); Aborbie (2015) and Okoye and Gbegi (2014) who highlighted that the widespread of fraud in present day associations has made traditional auditing impotent and insufficient in the detection of fraud. Aborbie (2015) proceeded to express that it is as a result of the complexities of the types of fraud being committed nowadays that internal and external auditors cannot keep up. Also Njanike et al. (2014) revealed that KPMG carried out two successive external audits and failed to identify extortion which was thereafter revealed by forensic audit. Ng'ang'a (2015) placed that deceitful exercises have been in the financial reports for a considerable length of time regardless of statutory audits. Eliezer and Emmanuel (2015) concur as they are of the idea that external auditors are hesitant to report fraud committed by management therefore impeding their independence. In addition Nunn et al. (2017) posited that when there is alleged extortion, it is critical to draw in independent forensic auditors as the present auditors may experience inherent clashes. Dada (2014) and Bassey (2018) contends that fraud makes unreasonable allowances for auditors if they suspect that they will be penalized for a considerable length of time that the fraud went undetected, it is such cases that entice auditors to come together with the executives for purposes of hiding fraud. Furthermore, Popoola et al. (2014) demonstrated that outsiders anticipate that an external auditor should recognize fraud while the auditor is hesitant to as he trusts it is not his essential obligation to do so, in this manner creating an expectation gap. This view was upheld by Okolie and Taiwo (2014); Onodi et al. (2015); Ijeoma (2014); Mutua (2014) and Odelabu (2014) highlighted that this made a requirement for an increasingly robust strategy to stem the tide of misrepresentation and consequently connect the audit expectation gap.

On the other hand (Nwanko, 2014) proclaims that poor internal controls bring about fraud and this can be forestalled by permitting the internal and external audit staff to do intermittent appraisals. Internal and external auditing oversight by independent accounting experts of the organization's records and reports is a significant way of dealing with fraud reduction according to Wells (2014). Nwanko (2014); Alabdullah (2014) and who are of the view that external auditors are similarly as significant as forensic auditors as both play a review control of the financial information with the aim of spotting fraud. Asare et al. (2015) recognizing fraud is the obligation of external auditors and with a couple of exceptions they should discover it. It is a direct result of these clashing ends that this research sought to clarify the difference between the external and forensic auditors by investigating the effectiveness of forensic audit in the detection of fraud.

2.2. Failure of Internal Auditors to Detect Fraud

As indicated by Ng'ang'a (2015); Onodi et al. (2015); Popoola et al. (2014) fraudulent activities have been in the financial reports for a considerable length of time regardless of external and internal audits. Aborbie (2015) and Eliezer and Emmanuel (2015) proceed to state that this insufficiency radiates from the complexities of advanced fraud making it hard for internal auditors to keep up. In addition Enofe et al. (2015) and Okoye and Gbegi (2014) are of the idea that it is because of the disappointment caused by internal and external auditors in the detection of fraud that has brought forth forensic audit. Furthermore, Yego (2016) and Wells (2014) asserted that poor internal controls bring about misrepresentation and this can be forestalled by permitting the internal and external auditing personnel to exercise periodic assessments. As indicated by Dozier and Miceli (2015) internal auditors must have adequate knowledge on fraud to enable them to ascertain fraudulent exercises. Haniffa and Hudaib (2007) uncovered that bank administrators and workers discovered loopholes to conduct fraud and later concealed their tracks using internal auditors. In addition Oyedokun. (2015) uncovered that numerous fraud found by internal auditors were immediately excused as the management have significant control over the internal auditors' ability to identify misrepresentation. This view was upheld by Akenbor (2014); Lanza, Gilbert, and Lamoreaux (2014) and who brought up that by constraining the extent of the internal audits management can successfully cover up fraud. Moreover, Haniffa and Hudaib (2007) set that fraud, in whatever nature and appearance must be recognized first, since detection is a significant essential of uncovering any kind of extortion. All alone, internal auditors are not really the most qualified group to perform the task of fraud detection.

On the other hand Omar and Bakar (2014) and Lin (2014) demonstrated that internal auditors assume a significant role in the detection and anticipation of fraud. While other researchers, such as, Iyer and Samociuk (2016) and Soltani (2014) accept that internal audit is a potent detection and anticipation instrument others

trust it is a result of its disappointment that forensic audit was established, this study accordingly tried to explore the effectiveness of forensic audit as a fraud detection and prevention device.

2.3. Weak or Absence of Adequate Internal Controls

According to Kabue (2015) and Macdonald (2015) increasing cases of fraud have pulled in interests from the public and many individuals accept that fraud would have been kept away if organizations maintained adequate internal controls. This view was supported by Onodi et al. (2015) who are of the idea that some conspicuous indications of fraud are because of rehashed slips by internal controls. Also, Akelola (2015) and Lokanan (2015) concur that chance to commit fraud ought to be connected with insufficient or feeble internal controls. According to Asare et al. (2015) and Asare and Wright (2014) as a result, it is the obligation of the management to create solid internal controls that will help in identification and avoidance of fraud. This was upheld by Yego (2016); Haniffa and Hudaib (2007) who highlighted that solid internal control permit institutions to recognize issues that may cause problems through fraud hence avoiding deceitful exercises. Abdullahi and Mansor (2015) and Fazli, Mohd, and Mohamed (2015) pointed out that one of the conditions vital for fraud to happen is seen opportunity made by impotent controls, and poor administration framework, in accounting this is known as weak internal controls. As indicated by Oyedokun (2015) the absence of internal controls does not block fraud from occurring, nonetheless it leaves an open entry for it to occur. Ng'ang'a (2015) and Osunwole, Adeleke, and Henry (2015) indicated that when top management does not assume a functioning role in misrepresentation, preventing internal controls may not be the best answer for fraud prevention henceforth the requirement for forensic audit. DiNapoli (2016); Rohana et al. (2015) and Omar and Bakar (2014) concur that survey of internal controls and external audits on the financial statements are positioned as the top fraud prevention instruments. According to Muthusamy (2016) eliminating chances of fraud should be possible by introducing a decent arrangement of internal controls, with physical control of resources, appropriate approvals, isolation of obligations and legitimate documentation.

Comer (2017) reckons that it is not really the shortcoming of internal controls that causes extortion but instead inability to detect and distinguish signs that things are not exactly right. Detection of fraud starts with the signs of warnings which show that something is not right as indicated by McWilliams (2016). According to Macdonald (2015) to re-establish the badly required reputation, a few organizations made the move to improve foundation of the internal control and accounting frameworks drastically. While different researchers accept sound internal controls are the remedy to extortion, others accept fraud can even occur within the sight of sound internal controls hence the requirement for forensic services.

2.4. Failure of Management and Those Charged with Governance

As indicated by Ng'ang'a (2015) poor corporate administrations and book keeping disappointments have been cited as the catalyst of the plans for extortion. Akelola (2014) and Aborbie (2015) posited that the essential obligation regarding the anticipation and detection of fraud and mistakes rests with management and those charged with governance. This view was supported by Nwanko (2014); Lin (2014) and Onodi et al. (2015) who revealed that the obligation of forestalling, distinguishing and investigating fraud in fiscal reports lies in the hands of management yet additionally in the hands of other control institutions and systems. Besides Peter, Aliyu, Ebong, and Abba (2014) and Macdonald (2015) proceed to specify that fraud by the administration is a point that has raised public concern. This view was upheld by Abdullahi and Mansor (2015) one could choose to enhance himself through one's occupation or obligation in an organization and this misuse of power by fraud perpetrators incorporates cautious mismanagement. In understanding Yego (2016) uncovered that Nigerian researches from 2011 to 2014 revealed that most successive culprits were top management. Asare et al. (2015) and Asare and Wright (2014) argued that auditors should concentrate on how management might execute and disguise misrepresentation. This view was bolstered by Gregory (2015) and Iyer and Samociuk (2016) who recommended that it is hence significant that professional standards that are linked to fraud detection reinforce the accentuation on the management conduct that might be related with unscrupulous conduct. Enofe et al. (2015) it is very workable for top level management to get to information and change the data, paper-based framework or a computerized system. Everything relates back to human instinct and the top level management. Interestingly Comer (2017) showed that fraud is not the top goal of the bustling management until it strikes and it is this reluctance that makes it simpler for fraudsters to succeed. Fazli et al. (2015) posited that monetary fraud cannot happen except if the chance is available, this opportunity radiates from the employee's capacity to acknowledge shortcomings in the governance framework and exploit them. As indicated by Oyedokun. (2015) fraud can be found by internal auditors however the board has critical effect on internal auditor's commitment to fraud detection. This was supported by Akenbor (2014); Ab Majid, Mohamed, Haron, Omar, and Jomitin (2014) and Rahman and Khair (2016) who are of the view that by restricting the scope of the audit or accessibility of resources the board can adequately cover extortion. In understanding Soltani (2014) is of the view that a few auditors do not unveil fraud because of fear of opposing the management.

On the other hand DiNapoli (2016); Rohana et al. (2015) and Omar and Bakar (2014) concur that examination of internal controls by the board and external auditors on the financial reports are positioned as the top most fraud thwarting instruments. As indicated by Osunwole et al. (2015) the duty of internal controls

rests with the management and in response management looked for forensic auditors to safeguard internal controls. Adeidre (2016) expressed that absence of the management's accountability has caused people in general to understand that there is an incredible requirement for experts known as forensic auditors that can detect, uncover and forestall shortcomings in the governance system, internal controls and financial statements. This research hence investigated the adequacy of the forensic audit as a technique for fraud detection.

2.5. To Identify Current Challenges Inhibiting Forensic Auditors in the Detection and Prevention of Fraudulent Activities

2.5.1. Lack of Knowledge and Training

As indicated by Okolie and Taiwo (2014) forensic audit is not popular in developing economies consequently accountants with satisfactory specialized ability are not really accessible and a dominant part of accountants carrying out forensic audits are external auditors. Asare et al. (2015) and Asare and Wright (2014) proceed to mention that forensic audit has not been adequately incorporated in the curriculum prompting lack of knowledge in the forensic field. As indicated by Dada (2014) a professor cannot pass on to the student what he does not have knowledge of accordingly forensic audit has not been successfully incorporated in the educational program. This was supported by Magali and Qiong (2014) who referenced that auditors are not fully equipped with knowledge to detect or prevent fraud. According to Zhaol, Yen, and Ghang (2014) and Lawal (2017) specialists noticed that auditors' in developing economies require training in fraud recognition and detection strategies or fraud investigating methods. Dada (2014) concurred that auditors are not trained enough to allow them to identify or perceive fraud. Iyer and Samociuk (2016) and Soltani (2014) noticed that reality trends proposing that fraud exists are new to numerous auditors since they have not been trained in the discipline of forensics because fraud is an uncommon issue.

Auditors may need more training in fraud identification strategies or fraud investigation methods according to Sikka (2015) in this regard (Gill, 2017) infer that audit seniors exposed to a fraud case evaluate fraud with high risk however for the most part neglect to structure compelling tests to detect the extortion. In addition, Bosse and Phillips (2016) posited that the individuals who can recognize fraud are progressively capable of coming up with audit tests to identify whether fraud is present. According to Asare. et al. (2015) the audit procedure, knowledge, experience, training and auditor allowances seem to play a huge and moderately equivalent role in hindering auditors from detecting fraud. This was supported by Njanike et al. (2014) who uncovered that most forensic audit departments experience adverse effects of resource shortages, information, skill and training. Gregory (2015) asserted that the outcomes of auditors' obvious absence of adequate fraud knowledge bring up issues about the educational system and training. Specifically, it gives avocation to presenting forensic accounting courses in the university educational program and additionally in practice. Asare and Wright (2014) highlighted that audit studies and practice can concentrate on creating promising mediations, for example, improved training for auditors and closer joint effort with fraud analysts and changes in the correspondence of the firm and allowance system of the firm. According to Adeidre (2016) other researches such as those by Nunn et al. (2017); Popoola et al. (2014); Aborbie (2015) and Okoye and Gbegi (2014) have proposed the significance of auditors' training to reason deliberately so as to upgrade fraud identification and detection abilities. Taking into consideration the effects of knowledge and training, this study evaluated the effectiveness of forensic audit in fraud detection.

2.6. Changes in Technology

According to Macdonald (2015) and the forensic audit workforce experiences absence of specialized abilities and inability to accumulate data that is permissible in court. Okolie and Taiwo (2014) mentioned that a decent forensic auditor is supposed to have a strong foundation of computer knowledge and Information Technology. In the modern world, technology is changing continually and the forensic workforce needs to keep performing highly as indicated by Manas (2014). Moreover, Kingsly (2015) and Petraşcu and Tleanu (2014) indicated that most lawbreakers responsible for fraud utilize advanced innovation and accounting methods to carry out complex extortion and this implies forensic auditors' need to stay aware of complexities. This view was supported by DeZoort and Harrison (2018) and Nipion (2015) who revealed that exponential increment in the use of Information and Computer Technology represent a test to the profession of forensic auditors as the techniques utilized by crooks and fraudsters keep on updating. This was upheld by Dada (2014) and Abdullahi and Mansor (2015) who highlighted that as more improvement both in the Information Communication Technology (ICT) world and other fields is initiated, fraudsters keep on preparing strategies towards fraud practice. Peter et al. (2014) goes on to say this requires forensic auditors with great experience and ICT abilities to anticipate and detect such fraudsters.

According to DiNapoli (2016) and Aborbie (2015) forensic auditing does not use a sample and accordingly enormous volume of information is required for analysis and is typically done using computers and the lack of capacity to stay aware of Information Technology cannot be tolerated as it leads to challenges in the event that one is to execute forensic audit. This view was upheld by Asare and Wright (2014) and Okunbor and Obaretin (2010) who showed that the utilization of computers to carry out an audit as a strategy require a

specific aptitude that not all auditors have. However, Akelola (2015) clarified that Information Technology is an overall internal and external factor that impacts fraud and can be utilized in forestalling and detecting extortion nevertheless it is exceptionally prone to ineffectiveness and most likely inefficient if not executed appropriately. In this case, the Chartered Accountancy firm does not have a fully functional forensic audit department and auditors from the external audit department carry out its forensic audits. This study evaluated the effectiveness of forensic audit as a tool for fraud detection and prevention.

2.7. Forensic Audit is a New Trend in Developing Countries and is Considered Expensive

As indicated by Okolie and Taiwo (2014) forensic audit is just emerging in developing countries hence the existence of a shortage in forensic auditors. This was supported by Lokanan (2015); Agrawal and Cooper (2017) who demonstrated that accountants with specialized skill on the forensics issue are not really accessible in developing nations. In addition Sikka (2015) and Huber (2017) proceed to state that an educator cannot train what he does not know and it is because of this reason that forensic audit has not been adequately incorporated in the curriculums. On the other hand taking into account the cost benefit analysis (Gill, 2017) posited that forensic audit is costly and can only be done by financially stable organizations. This was upheld by Morales, Gendron, and Guénin-Paracini (2014) and Seitz, Oeding, and Wiese (2015) who added that most associations think that it is simpler to drop the case than draw in a costly forensic auditor to recuperate a small amount of money. Abdullahi and Mansor (2015); Eferakeya, Enaibre, and Offor (2016) and indicated that by the time the fraud is identified, the amount is useless or the odds of recouping it will be smaller by then in this way it could be a misuse of money to hire a forensic auditor.

In addition Asare et al. (2015) and Asare and Wright (2014) posited that most companies are afraid of bad reputation and expenses so they prefer to settle their issues outside court. Moreover, Adeidre (2016); Odunayo (2014) and contended that there is no compelling reason to depend on the services of forensic auditors in detecting fraud since external auditors are well prepared in all situations to identify a wide range of fraud while carrying out their statutory audit at the same time it is actually cost effective. Seitz et al. (2015) posited that avoiding fraud is less expensive than the expense of identifying it hence the need to use forensic audit in counteraction of misrepresentation which may potentially control fraudulent activities. This research consequently analyzed the viability of forensic audit in the detection and prevention of fraud.

2.8. To Determine the Effectiveness of Forensic Audit as a Tool for Fraud Detection and Prevention

2.8.1. Ability to Detect Fraud

As indicated by Eliezer and Emmanuel (2015) and Oyedokun (2016) disappointment caused by external auditors as a result of their failure to recognize and prevent deceitful activities has cleared paths for an expansion in fraudulent activities bringing about the requirement for forensic auditors to control such exercises. This view was supported by Muriithi, Mwikamba, and Rossana (2016); Petraşcu and Tleanu (2014) and who are of the view that the significance of forensic audit can be lucidly comprehended from the context of failure of external auditors. According to Enofe et al. (2014); Ali (2017) and Olatunji and Adekola (2017) the task of the forensic auditors is to identify extortion happening in the organizations every year as well as the culprit responsible. This according to Peter et al. (2014) and Ibrahim, Madawaki, and Usman (2014) incorporate following tax evasion and fraud exercises such as tax avoidance.

As indicated by Eliezer and Emmanuel (2015) with the utilization of analytical and innovative skills, a forensic auditor can without much of a stretch detect budgetary misrepresentation executed by the management therefore avoiding corporate disappointment. Besides Muriithi et al. (2016) and Magali and Qiong (2014) uncovered that a forensic accountant is capable of identifying and blocking business extortion using Benford law. Zhaol et al. (2014) revealed that a forensic accounting group managed to reveal fraud plot for their client in Kogi State after the external auditor had not managed to do as such in their statutory audit. However Albrecht, Holland, Malagueño, Dolan, and Tzafirir (2015) contended that fraud is once in a while observed as the misrepresentation defaulters are getting more intelligent because of the potential slip-ups humans can cause, making it hard for even forensic audit to detect fraud. This has made identification and detecting fraud a difficult work for a forensic accountant. In addition, Onodi et al. (2015) inspected the adequacy of forensic auditing departments in the Nigerian stock trade and showed its inadequacy as it has inadequate expertise and resources resulting in fraudulent exercises being done consistently. Adeidre (2016); Odunayo (2014) and argued that there is no compelling reason to depend on the administrations of forensic accountants in detecting fraud since external auditors are well prepared in all situations to identify a whole range of fraud while carrying out their statutory reviews and at the same time cost effective.

2.9. Litigation Support Services

Oyedokun (2016) presents that litigation support gives help of a bookkeeping nature in an issue including existing or pending cases. According to Ezejiofor, Nwakonu, and Okoye (2016) and Sang (2014) traditional auditing and forensic auditing are similar however they are not the same since the latter includes litigation support which is not present in external auditing. Enofe et al. (2014) submits that forensic accountants have assumed an undeniably significant job in litigation and other legal debates incited by failures and frauds.

According to [Abdi \(2017\)](#); [Akelola \(2015\)](#) forensic accounting is focused on the utilization of accounting discipline to help unearth facts in business litigation. [Kingsly \(2015\)](#) and [Igbaekemen, Abbah, and Geidam \(2014\)](#) present that forensic accounting is for the most part appropriate for lawful assessment offering the most significant level of affirmation including fresh generally acknowledged meanings of presenting the discoveries in settling conflicts.

[Nwanko \(2014\)](#); [Onodi et al. \(2015\)](#) showed that unlike external auditors forensic accountants' exhibition includes a detailed evaluation to reveal conceivable fraud that is appropriate for presentation in an official courtroom as proof. [Igbaekemen et al. \(2014\)](#) explain that forensic accountants are portrayed as the fraud battling experts as they have auditing abilities, accounting and analytical knowledge to aid legal issues whilst external auditors just possess inspecting abilities. This was supported by [Asare et al. \(2015\)](#) and [Asare and Wright \(2014\)](#) who asserted that those fraud experts' discernment towards the auditor's ability to identify extortion are helpful in a significant setting known as auditor litigation and depend on proof they collect that is both important and hard to get. [Gbegi and Adebisi \(2015\)](#) proceeded to state that forensic accountants assume a significant job as they give a prosecution or litigation support service that manages issues of financial harms as a method for covering setbacks of an external auditor in order to bring back trust of all stakeholders since external auditors do not have such skills.

Additionally [Eyisi and Agbaeze \(2014\)](#) showed that fraud analysts who are associated with auditor litigation regularly examine audit working papers, think about auditors' motivating forces and are saturated with auditing benchmarks to permit them to decide the reason for any failure of an audit. [Enofe et al. \(2015\)](#) fraud auditors have and can give significant bits of knowledge into why evaluators neglect to identify extortion due to their aggregate encounters in examining genuine fraud cases particularly those where failure of an audit is asserted and the forensic audit centers around those sections so making them progressively appropriate for arrangement of litigation services. According to [Aduwo \(2016\)](#) encounters with respect to the reasons for auditor's inability to recognize and detect fraud is significant, through a moderately unexplored, wellspring of data for the auditing profession to upgrade its commitment to society. Likewise [Boateng, Boateng, and Acquah \(2014\)](#) posited that managers might be reluctant to order explicit forensic services to look for fraud, maybe out of worries that such explicitness may trigger litigation for instance, it took the court's mediation for the affirmation of receivables to be required in many audit engagements. [Magali. \(2014\)](#) a specialist noticed that laws shield auditors from genuine litigation.

However [Bassey. \(2018\)](#) and [Dada \(2014\)](#) argued that laws make unreasonable allowances for auditors if they realize that they might be punished for detecting fraud by being held responsible for the time that the fraud went undetected. In these circumstances auditors might be enticed to connive with the board in covering fraud. On the other hand [Adeidre \(2016\)](#); [Odunayo \(2014\)](#) and [Agbaje \(2017\)](#) contended that there is no compelling reason to depend on the administrations of forensic accountants in locating fraud since external auditors are well prepared in all situations to recognize a wide range of fraud while performing their statutory audit which is cost effective simultaneously. This research therefore tried to examine the effectiveness of forensic audit in detecting and preventing fraud.

2.10. Financial Investigation, Settlement of Disputes and Business Related Issues

As indicated by [Olaoye and Dada \(2014\)](#) the developing multifaceted nature of the present business condition and the developing number of investigations in the business world has realized the inquiry that proficient forensic auditors are to become an integral factor in financial auditing and business related issues. This was supported by [Agbiogwu, Ihendinihu, and Okafor \(2016\)](#) and [Ibrahim et al. \(2014\)](#) who highlighted that forensic auditors assume a significant job in financial related examinations and business related issues since external auditors are neglecting to highlight budgetary violations in their statutory reviews. According to [Eliezer and Emmanuel \(2015\)](#) external auditing which is part of traditional bookkeeping has to do with scrutinizing the numerical accuracy in the accounting division while forensic auditing looks past the monetary numbers to perceive what is not exactly right. [Muriithi et al. \(2016\)](#); [Ramadhan \(2015\)](#) showed that the external auditors simply express their feelings on the fiscal reports of the association adhering to set down principles, approaches and guidelines. Proceed to attest that such assessments are not founded on proof that could be utilized in the courtroom as proof. Conversely [Enofe et al. \(2015\)](#) and [Manas \(2014\)](#) are of the view that forensic accounting grapples on assurance of proof that could be utilized in the courtroom as proof and not simply conclusions. [Kingsly \(2015\)](#) and [Igbaekemen et al. \(2014\)](#) showed that forensic accounting is for the most part appropriate for lawful review offering the most elevated level of confirmation including new generally acknowledged meanings presented in a logical manner of providing the results in settling disputes. [Nwanko \(2014\)](#) highlighted that unlike external auditors, forensic accountants' presentation includes a well detailed investigation to reveal conceivable extortion that is appropriate for representation in an official courtroom as proof. [Igbaekemen et al. \(2014\)](#) clarify that forensic accountants are portrayed as the extortion battling aces as they have bookkeeping abilities, evaluating aptitudes and analytical abilities to aid lawful issues whilst external auditors just possess auditing aptitudes.

With regards to dispute resolution [Basu \(2014\)](#) posited that forensic accountants assume an essential job in evaluating the harms experienced by parties included and help in settling those disputes before it could get to the official courtroom. This was supported by [Zhaol et al. \(2014\)](#) who proceed to state that forensic

accounting searches for settlement out of court and makes a few proposals or moves that can be made to decrease future dangers and misfortunes. In addition [Paden \(2016\)](#) uncovered that forensic accounting can therefore be viewed as master in the field of accounting because of the way that they offer best types of assistance in legitimate survey and furthermore they offer the most significant level of confirmation that the proof they give is sufficiently adequate to be utilized in a courtroom. [Oyedokun \(2017\)](#) showed that forensic audit could be utilized to turn around all the spillages that cause corporate failures. However [Zhaol et al. \(2014\)](#) contended that forensic audit does not help in detecting and forestalling extortion as a particular forensic audit team could not reveal enormous fraud plans and the proof they gave was not satisfactory to be introduced in a courtroom bringing about the inability to settle interior cases. This study consequently dissected the effectiveness of forensic audit in the prevention and detection of fraudulent activities.

2.11. Forensic Audit as Compared to External Audit

According to [McWilliams \(2016\)](#) and [Gupta \(2014\)](#) the significance of forensic accounting can be plainly comprehended from the setting of failure of external reviews to identify and prevent extortion. This has in this manner made the need to comprehend what makes the external auditor and the forensic auditor different. According to [Pany \(2014\)](#) the forensic auditor applies solid standards and strategies to adequate facts or information and requires ability and aptitudes in their audits whilst on the other hand there is no such need in the traditional space. [Taylor, Dossick, and Garvin \(2014\)](#); [Kingsly \(2015\)](#) and [Nunn et al. \(2017\)](#) stated that forensic auditors and external auditors share a few objectives however they have different knowledge, main objectives and skills. In addition [Augustine and Uagbale-Ekatah \(2014\)](#) go on to mention that traditional auditing places emphasis on identifying errors while forensic audit includes identification of fraud. [Uwalomwa, Ranti, Kingsley, and Chinenye \(2016\)](#) and [Ali \(2017\)](#) posited that the principles of forensic auditing develop from official courtrooms whilst those of traditional accounting like financial related scrutiny are set by regulatory bodies, for example the Security Exchange Commission. [Alao \(2016\)](#) revealed that traditional auditing utilizes strategies of inspection known as sampling to find unexpected blunders brought about by shortcomings in internal controls which happen at regular intervals while forensic auditing does not utilize sampling in light of the fact that deliberate errors by people can happen in any random transactions, subsequently forensic audit carries out a 100% audit. [Maulidi \(2016\)](#) and [Abdul \(2018\)](#) noted that because of high volume of information required for forensic audits, it is normally done using computers. According to [Basu \(2014\)](#) forensic auditor carries out his audits on explicit allegations whilst the traditional auditor is required by the law to carry out statutory audits every year.

[Olatunji and Adekola \(2017\)](#) indicated that a forensic auditor has a lot of time to examine and dissect altogether specific fake budgetary issues with accentuation of utilizing the proof in a court of law while that review done by a traditional auditor is general in nature. [Manas \(2014\)](#) and [Mansor \(2015\)](#) a traditional audit is done on general financial related issues. This implies that the auditor considers all issues associated with accounting. [Jizi and Nehme \(2018\)](#) indicated that a forensic auditor is designated by organizations to determine claims and recognize or prevent false exercises suspected in the company making it anything but an ordinary audit as it may or may not follow auditing procedures. This was supported by [Bosse and Phillips \(2016\)](#) who highlighted that such review is proactive review which goes past ordinary review techniques while a customary auditor carries out statutory audits to guarantee that fiscal reports are in accordance with Generally Accepted Accounting Principles (GAAP). [Olatunji and Adekola \(2017\)](#) posited that it may well be reasoned that a traditional auditor may not go past the procedural review as he is not compelled to look for fraud but if he comes across it in carrying out his review, he will reveal it.

However, [Nwanko \(2014\)](#) and [Eliezer and Emmanuel \(2015\)](#) are of the view that both auditors are similarly as significant as both play a review control role of the monetary information with the point of identifying fraud. [Asare et al. \(2015\)](#) identifying fraud is the obligation of external auditors and with a couple of exemptions they should discover it. This was bolstered by [Ramaswamy \(2017\)](#) who set that external auditors have a key task to carry out in fraud recognition. It is therefore a direct result of these distinctions in objectives, knowledge and skill of the two auditors that this research tried to research the viability of forensic auditing as a tool for detection and prevention of fraud.

2.12. To Identify Ways of Improving Forensic Audit

2.12.1. Training and Development Programs

As indicated by [Macdonald \(2015\)](#) forensic auditors need numerous abilities in order for them to carry out their specified job as a result education and training in book keeping, business as well as the ability to communicate with others are vital. This was supported by [Muriithi et al. \(2016\)](#) who suggested that meetings, classes and preparation projects ought to be sorted out to upgrade the aptitudes and capacity of expert accountants to manage fraud issues. [Asare and Wright \(2014\)](#) and [Asare et al. \(2015\)](#) proceeded to demonstrate that further studies proposed that the significance of training auditors to reason tactfully is to upgrade misrepresentation recognition abilities. Also [Peter et al. \(2014\)](#) and [Soltani \(2014\)](#) revealed that the lower level auditors are frequently presented to sections of the audit that could possibly direct them to proof of fraud yet these people have the least experience resulting in constrained information about extortion so they do not perceive when a fraudulent activity is taking place and this issue proposes for better training to assist

lower level auditors in perceiving and conveying potential fraud indicators. DiNapoli (2016) and Deb and Sengupta (2020) are of the thought that direction and training are imperative in keeping up the viability of the procedure for identification and avoidance of fraud and debasement and its general credibility.

According to Magali and Qiong (2014); Abdullahi and Mansor (2015) and Adeidre (2016) the government needs to assist with induction and business related training to guarantee responsibilities and accountability concerning fraud are consistently followed and strengthened to such an extent that prescribed procedures are followed in the foreseeable future. Nipion (2015) revealed that forensic auditors should assume a significant part as master observers and fraud examiners and as such they ought to have a particular training and skill that empowers them to assume these jobs. This view was supported by Soltani (2014) and Asare et al. (2015) who showed that forensic accounting or techniques fighting against fraud can possibly work if the management is focused on it hence anti-graft offices ought to guarantee the accounting individual is well trained in the field of forensics. In addition Dada (2014) proposed that accountants must be well trained in the field of forensics and even as they become acquainted with the forensic field they ought to be retrained on regular interims. Oyedokun (2015) and Egbunike, Egbunike, and Okafor (2017) posited that educational certificates are acceptable yet further alumni training and advancement programs are fundamental on the off chance that one is to be the perfect forensic auditor. In this case trainings were held throughout the years however none according to forensic audit, this examination subsequently tries to evaluate the effectiveness of forensic audit taking into account the impact of training.

2.13. Use of Professionals in Forensic Engagements

As indicated by Gregory (2015) and Asare and Wright (2014) it is assessed that a lot of white collar misconducts go undetected or whenever identified they are never mentioned due to the high status of the culprits involved. This view was supported by Akomolafe, Eluyela, Ilogho, Egharevba, and Aina (2017) who proceeded to state such violations require a profoundly well trained and experienced agent like an expert forensic auditor to thwart the event of such prominent misrepresentation. Moreover Deb and Sengupta (2020); Brinkman (2014) placed that the failure of corporate correspondence structures has caused the general population to understand that there is an extraordinary requirement for experts known as forensic auditors. In addition Macdonald (2015) and Petraşcu and Tieanu (2014) concur that the conventional auditor has impediments in identifying extortion which forensic auditors will fill as they have the expert capacity back up by law to make discoveries.

On the other hand Abdullahi and Mansor (2015) assert that the forensic auditor must consider whether his firm has the vital aptitude and experience carry out the work due to the notion that forensic examinations are specialist in nature. Eliezer and Emmanuel (2015); Agrawal and Cooper (2017) highlighted forensic accountants are prepared to look further than the numbers and manage the business real factors of circumstances. Lawal (2017) sets that examination, understanding, rundown and the presentation of complex budgetary business related issues are noticeable highlights of the forensic profession accordingly because of this multifaceted nature accentuation should be set on who completes the examinations and whether they are equipped for the activity or not. Oyedokun (2015), Ehioghiren and Atu (2016) and Egbunike et al. (2017) in agreement, revealed that educational credentials are acceptable in structuring a high level of expert skill in preferably particular areas rather than simply taking a conventional auditor with no forensic capabilities to complete a forensic review. Akelola (2014), Ezejiofor et al. (2016) and Fazli et al. (2015) proceed to state where trial is viewed as the suitable endorsement, only well trained specialists should lead the investigation as persecution is a delicate issue and there is no room for errors. This research therefore seeks to take a look at the effect of expert knowledge and experience on the effectiveness of forensic audit as a device for detecting and preventing fraud.

2.14. Updating Existing Software

Dada (2014) and Abdullahi and Mansor (2015) showed that as advancements begin in both the Information Computer Technology (ICT) world and other fields, fraudsters keep on prepping their own strategies towards fraud practice. Alao (2016) and Lokanan (2015) noticed that a significant test to the use of forensic auditing in Nigeria is that the law is not generally fully informed regarding the most recent progressions and innovation. This was supported by Onodi et al. (2015) and Akelola (2015) who recommended that laws in developing nations should be fully informed regarding the most recent progression in innovation to guarantee acceptability of proof in a law court for effective indictment of criminal and common cases. This as indicated by Nipion (2015) and Peter et al. (2014) implies that the forensic accountants need well advanced technology to reveal misrepresentation. This view was supported by Enofe et al. (2015); Akenbor (2014) and Knezevic (2015) services should exploit the modern accounting and auditing programming to upgrade proficiency and smooth activity of forensic accounting. In light of inquiries done by Smith and Crumbley (2014) a forensic auditor is relied upon to have skill in data innovation to enable them to keep up with the consistent changes in software accounting.

As indicated by Deb and Sengupta (2020) through utilization of present day forensic software products, a forensic auditor can go beyond ordinary audit in order to uncover fraudulent activities. Petraşcu and Tieanu

(2014) proceeds to highlight that creating modernized applications to aid the examination and introduction of monetary evidence is in this manner a necessity. Besides, DiNapoli (2016) showed that exploration has additionally demonstrated that proactive forensic data investigation utilizing modern computer analytical tests can recognize fraud that may stay unnoticed for a considerable length of time. This was supported by Muriithi et al. (2016) who proposed that to encourage the safeguarding, assortment, examination and documentation of proof, forensic auditors can utilize particular programming and computer equipment. Macdonald (2015) showed that there are numerous new advancements that permit the forensic auditors to get back erased records, figure out encryptions or codes, concentrate and sort information.

According to DiNapoli (2016) computers are regular devices utilized by the guilty parties behind white collar crimes and so as to locate the conclusive evidence the forensic auditors should have the option to thoroughly go through the organization's computer system. However, DiNapoli (2016) proceeded to state that without the best possible equipment that procedure can end up being troublesome. This examination accordingly looks to break down the adequacy of forensic audit in the detection of fraud and give suggestions with regards to how it should be improved.

3. Research Methodology

In order to get rid of the detriments related with utilizing one methodology and promote the consistency of information the researcher utilized the combined approach. The combined approach was chosen by the researcher due to the fact that it advances the systematic integration of both qualitative and quantitative data in the same investigation. Quantitative data was gathered through section A of the questionnaire which had closed ended questions which could be quantified through the use of a rating scale known as the Likert scale. Qualitative data was gathered from section B of the questionnaire which had open ended questions and interviews were also conducted and they are qualitative in nature. The method was chosen as it allows offsetting the shortcomings of both quantitative and qualitative thus providing a more comprehensive and complete understanding of the study. In order to find the relationship between the dependent variable that is detection of fraud and the independent variable, forensic audit, the researcher employed multiple linear regressions. Therefore, an analysis of both quantitative and qualitative information was imperative in drawing out the effectiveness of forensic audit in identifying and preventing fraudulent activities. The Chartered Accountancy firm audit planner (2020) showed 70 auditors planned for audits for the month of January. In this manner from the 70 auditors available at the Chartered Accountancy firm just 23 were chosen to represent 32% of the target populace. From the 15 audit seniors employed at the Chartered Accountancy firm only 5 were selected and 18 audit trainees were selected from the 55 trainees available, reasonably speaking to 33% of each level. The researchers also considered the fact that every one of the 70 auditors cannot be accessible at once due to the nature of their job which expects them to be at their clients almost all the time. In investigating the effectiveness of forensic audit as a tool for fraud detection and prevention random sampling technique was employed. Simple random sampling technique gives an equal chance to every element of the population to be selected. A set of random numbers were generated and placed in a hat, the auditors having those numbers were included in the study. Questionnaires were supplemented by interviews which were carried out to eliminate and detect any unclear questions in the questionnaire with regards to the effectiveness of forensic audit as a fraud detection tool as respondents sought clarification where and when they did not understand the question. This ensured the accuracy of answers provided as interview respondents only responded after understanding the questions.

4. Model Specification

In order to decide the relationship between the independent and dependent variable, the research used multiple regression analysis. In this study, effectiveness of forensic auditing is measured by variables such as financial investigation, skills and level of education, experience and litigation support as independent variables. Fraud is an independent variable which is being measured by fraud detection. However, the researcher made use of different variables in order to explain the effectiveness of forensic auditing on the detection and prevention of fraudulent activities. The model is also essential as it permits the researcher to decide the significance of every factor to the study. The study is tested at 95% confidence level and 5% significance level. The multiple regression analysis was used as follows,

$$\gamma = \beta_0 + \beta_1\chi_1 + \beta_2\chi_2 + \beta_3\chi_3 + \beta_4\chi_4 + \mu$$

Where γ is fraud which is the dependent variable.

β = Parameter.

χ_1 = Financial investigation.

χ_2 = Skills and level of education.

χ_3 = Experience.

χ_4 = Litigation support.

χ_5 = Training.

χ_6 = Resources.

μ = Error term.

5. Discussion of Research Findings

15 out of 18 audit trainees answered the questionnaires resulting in a 83% response rate from the audit trainees. Total questionnaire response rate was 83% as 19 out of the 23 people selected managed to answer the questionnaires. According to [Bryman and Bell \(2015\)](#) anything more than 50% is considered dependable and relevant and this research's response rate exceeded that by 33%.

5.1. Which of the Following Perpetrated the Need for Forensic Auditing Services?

Failure of external auditors to detect and prevent fraud, failure of internal auditors to detect and prevent fraud, weak or absence of internal controls and failure of management and those charged with governance effectively carry out their duties with regards to fraud are some of the factors that have been said to have led to the birth of forensic audit. From the 19 respondents 2 (11%) strongly agree, 9 (47%) agree, 2 (11%) were neutral, 1 (5%) disagrees and 5 (26%) strongly disagree that the failure of external auditors to detect fraud led to the birth of forensic auditing. A total of 11 out of 19 respondents (58%) agree that failure of external auditors to detect and prevent fraud led to the birth of forensic auditing. This means that the more the external auditors failed to detect fraud the more the services of a forensic auditor were sought by organizations. [Njanike, Dube, and Mashayanye \(2014\)](#) revealed that KPMG completed two successive reviews and neglected to identify fraud which was later found by forensic auditors. [Ng'ang'a \(2015\)](#) proceeds to specify that the validity of the external audit process has been flawed in numerous nations because of the various financial related outrages and mega frauds [Annual Progress Report \(2019\)](#) indicated that the decrease in the external audit clientele base from 80 clients to 74 clients in 2019 was as a result of having invested so much time and external audit personnel in the forensic audit engagement accepted in 2019 such that the external audit department was understaffed and unable to meet deadlines for the other clients. Engaging external auditors in a forensic review is an issue as indicated by [Okoye and Gbegi \(2014\)](#) who are of the thought that there is a huge distinction between external and forensic auditors, as external auditors do not or might not have sufficient training to handle present day fraud like white collar crimes for example embezzlement and security fraud bringing about the requirement for forensic auditors.

This view was also supported by interviewee 3 who explained that external auditors cannot possibly not come across fraud each and every time they carry out an audit. Chances are once in every five audits they come across fraud but choose not to disclose it. This view goes in line with that of [Dada \(2014\)](#) who argued that perverse incentives which are created by the law if they perceive they will face punishment for identifying fraud by being held liable responsible for the period lapsed without the fraud being detected and this compels auditors to work with management in hiding fraudulent activities. [Bassey \(2018\)](#) also mentioned that there is in this manner an unconscious bias by examiners in supporting customer inclinations because of the desire to satisfy the board who are instrumental in holding the audit firm for its administrations.

On the other hand a total of 7 out of 19 respondents (37%) disagree that the failure of external auditors resulted in the birth of forensic audit services. This means that there is no relationship between the failure of external auditors and the birth of forensic audit. This view was also backed by interview response from the second respondent which stated that it is not the external auditor's job to detect fraud therefore he should not be blamed. [Popoola et al. \(2014\)](#) is of the idea that people in general should not rush to presume that the external auditor has failed due to the fact that the conventional auditor accepts that it is not his essential obligation to identify fraud hence the auditor is hesitant to identify fraud. Moreover 2 out of 19 respondents (11%) were not sure as to whether the failure of external auditors led to the birth of forensic auditors or not. The researchers therefore found that the failure of external auditors to detect fraud therefore initiated the birth of forensic auditing services.

8 out of 19 respondents (42%) strongly agree, 10 out of 19 respondents (53%) agree and 1 out of 19 respondents (5%) disagree that the failure of internal auditors to detect fraud perpetrated the need for forensic services. A total of 18 respondents (95%) therefore agree that the failure of internal auditors to detect and prevent fraud led to the birth of forensic audit. This means that as the internal auditors failed to detect and prevent fraud the need for forensic audit services grew. This view lines up with that of [Ng'ang'a \(2015\)](#) who posited that fraudulent exercises have been in the financial reports for quite a long time in spite of external and internal auditors. [Aborbie \(2015\)](#) proceeds to make reference to that this incapability radiates from the complexities of modern day fraud making it hard for internal auditors to keep up making a gap for forensic auditors. [Yego \(2016\)](#) and [Wells \(2014\)](#) set that poor internal controls bring about misrepresentation and this can be prevented if the internal auditing staff completes periodic appraisals along these lines this failure can be connected to the internal examiners.

However, 5% of the respondents disagree that failure of internal auditors to detect and prevent fraud gave rise to forensic audit services. This means that the growing need for forensic auditors cannot be linked to failure of internal auditors. This is in line with [Oyedokun \(2015\)](#) who revealed that a lot of fraud is identified by internal auditors were quickly dismissed as the board have power over internal auditors hence the failure should be shifted to management. It was therefore found that the failure of internal auditors to detect fraud led to the need for forensic audit services as 95% of the respondents supported by third interview respondent are

for this notion. In their audit reports to management the auditors should make recommendations on how their clients could improve the internal audit function and reduce or even curb fraudulent activities.

19 respondents made up of 10 who strongly agree, 8 who agree and 1 who strongly disagrees that weak or inadequate internal control systems led to the need for forensic services. A total of 18 respondents (95%) therefore agrees that the weak internal controls raised the need for forensic services in other words this means that the weaker the internal controls the higher the number of fraudulent activities taking place and the forensic services would then be required to investigate these fraudulent activities. Onodi et al. (2015) is of the idea that some obvious detection of fraud was due to repeated failures in internal controls. Akelola (2015) and Lokanan (2015) concur that a chance to commit fraud should be connected to insufficient inside controls. Report to Management (2019) revealed that the deceitful exercises happened because of consistent setbacks in the internal control frameworks.

On the other hand 1 respondent (5%) disagrees that the internal control weaknesses are to blame for the increase in the need for forensic auditing. This view was supported by Comer (2017) believes that it is not really the shortcomings of internal controls that causes extortion but instead inability to identify signs that things are not exactly right. Location of fraud starts with the red flags which show that something is not right as per Petraşcu and Tleanu (2014). Based on the fact that 95% of the respondents are in agreement it is only reasonable that the researcher concludes that weak or inadequate internal control systems should be blamed for the growing relevance of forensic audit.

10 respondents strongly agree, 6 respondents agree and 3 respondents disagree that the failure of management to carry out their duties with regards to fraud led to the rise of forensic audit. A total of 16 respondents (84%) therefore agree that management's failure should be linked with the growing relevance for forensic audit services. Akelola. (2014) and Aborbie (2015) and Okoye (2016) share a similar view as they highlighted that the essential duty to recognize and prevent fraud rests with the board and those charged with administration. Ng'ang'a (2015) proceed to state that poor corporate administration and accounting failures have been cited as a portion of the plans for fraud. It is the expansion in fraud causes that has in this manner caused the upward move in the need for forensic audit services. Report to Management (2019) revealed that the fraudulent exercises happened because of constant incidents in the internal control frameworks and as per Osunwole et al. (2015) the obligation of internal controls rests with management.

In contrast 3 respondents (16%) disagree with this view as management is simply trusting the other staff connected to the internal controls to effectively carry out their duties. According to Adeidre (2016) management's reluctance is based on the fact that since they are in a position of authority, they can delegate and entrust their subordinates to effectively protect the internal control system. However, the researcher concludes that management failure to effectively carry out their duties with regards to the growing relevance of forensic audit as 84% of the respondents were for this view. The auditors should make recommendations on how management can improve their internal control systems and increase supervision so as to not leave any room for fraud to take place.

5.2. Is Forensic Audit an Effective Tool in the Detection and Prevention of Fraud?

Prior researches indicated that the effectiveness of forensic audit could be measured based on a number of factors amongst them being its ability to detect fraud, its ability to provide evidence that is admissible in a court of law and also its ability to carry out financial investigations and solve business disputes. 11 respondents (58%), 7 respondents (37%) and 1 respondent (5%) strongly agree, agree and disagree that forensic audit has the ability to detect fraud respectively. This adds up to a total of 18 respondents (95%) who agree that forensic audit has the ability to detect fraud. This means that there is a positive relationship between forensic audit and fraud detection. This was in accordance with Eliezer and Emmanuel (2015) who showed that with the utilization of expository and technological aptitudes a forensic auditor can without much of a stretch distinguish misrepresentation executed by the board hence avoid corporate failure. Zhaol et al. (2014) gave a case whereby a forensic audit group had the option to reveal an enormous extortion plot for their client as external auditors had neglected to do as such in their statutory audit. According to the Chartered Accountancy firm Annual Progress Report (2017). Chartered Accountancy firm carried out a forensic audit in 2017 and they managed to detect fraudulent activities and this resulted in the respondent's confidence that forensic audits are indeed capable of detecting fraudulent activities.

However, 1 respondent (5%) disagrees that forensic auditing is capable of detecting fraudulent activities. In other words there is a negative relationship between forensic audit and fraud identification. In their study, Onodi et al. (2015) analyzed the viability of the utilization of forensic audit administrations in the Nigerian stock trade and showed its incapability as it needs specialized skill and resources and in this manner fraudulent activities are being done regularly. Odunayo (2014) posited that as forensic auditors win fraud cases the fraudsters keep on preparing their strategies and advance their procedures making it hard for forensic examiners to identify fraud hence an expansion in forensic accounting is trailed by a reduction in the capacity to recognize fraud. It was therefore found that basis of 95% response rate, that forensic auditing is an effective tool in the detection of fraud. In order to improve the auditor's ability to detect fraud the firm should frequently train and retrain its staff in the field of forensic auditing.

3 respondents (16%) who strongly agree, 9 respondents (47%) who agree, 1 respondent (5%) who disagrees and 6 respondents (32%) who strongly disagree on the ability of forensic audit to provide evidence that is admissible in a court of law. This results in a total of 63% supporting that evidence gathered by forensic auditors can be used in a court of law as supported by [Igbaekemen et al. \(2014\)](#) who indicated that fraud examiners are known as fraud fighting experts as they have investigating, auditing and accounting skills to assist in legal matters and provide enough information that is admissible in a court of law. However a total of 7 respondents (37%) disagree that the information gathered by forensic auditors is admissible in a court of law. [Agbaje, Busari, and Adeboye \(2014\)](#) argued that there is no compelling reason to depend on forensic auditing as external auditors are well prepared in all situations to detect a wide range of fraud and give proof which may really be helpful. [Albrecht et al. \(2015\)](#) additionally highlighted that fraud is once in a while observed as fraudsters are getting more and more astute because of the potential errors people can cause making it hard even for legal examiners to detect fraud.

It was therefore found that forensic audit evidence can indeed be relied upon to provide evidence that may be used in court as a reasonable number of the respondents (63%) were in support of this view. Training sessions should also cover confidence coaching such that when asked to stand in a court of law the auditors can be able to explain the evidence they gathered and not contradict it.

2 respondents (11%) strongly agree, 13 respondents (16%) agree and 4 respondents (21%) disagree respectively, that forensic audit has the ability to carry out financial investigations and solve business disputes. A total of 15 respondents (79%) agrees with this view that forensic audit can carry out financial investigations and solve business disputes. This view was supported by [Basu \(2014\)](#) who placed that forensic accountants assume a critical role in measuring the damages faced by parties included and assist in settling those disputes. [Olaoye and Dada \(2014\)](#) also revealed how forensic auditors are approached to become an integral factor in financial related examinations and business related issues because of increasing complexities of the business condition which is helpful for fake exercises to happen. Chartered Accountancy firm [Annual Progress Report \(2019\)](#) revealed that the firm successfully carried out its forensic engagement by detecting the alleged fraud hence any pending disputes were solved with regards to this fraud in particular. On the other hand 4 respondents (16%) disagree that forensic auditors are capable of carrying out business investigations and solving any disputes. This was upheld by [Zhaol et al. \(2014\)](#) who argued that forensic review is not effective in identifying and preventing extortion as a specific forensic accounting group could not reveal huge fraud plans and the proof they gave was not sufficient to be introduced in a courtroom bringing about the inability to settle these internal debates. As a result it was concluded that forensic audit is fit for doing business examinations and settling questions as 79% of the respondents had a similar view.

5.3. Which of the Following Factors Influence the Effectiveness of the Forensic Auditors?

The impact of knowledge, training and availability of resources, practical experience and level of education had been overlooked by previous researches therefore this research sought to determine how these factors influenced the effectiveness of forensic auditing. 10 respondents (53%) strongly agree, 8 respondents (42%) agree and 1 respondent (5%) disagree that training has an influence on the effectiveness of forensic audit. This resulted in a total of 95% of the respondents agreeing that training has an impact on forensic audit meaning there is a positive relationship between the level of training and the effectiveness of forensic audit. This was upheld by [Asare et al. \(2015\)](#) who highlighted that training, experience and knowledge of an auditor seem to play a huge and generally equivalent part in repressing examiners from detecting fraud. This was in accordance with [Okoye and Gbegi \(2014\)](#) who recommended the significance of training auditors to reason deliberately and upgrade their fraud identifying abilities as [Njanike et al. \(2014\)](#) indicated that most forensic audit divisions experience struggle due to absence of knowledge and training on the forensic field making it hard for them to identify fraud. [PKF Annual Progress Report \(2019\)](#) indicated that the firm ought to establish a fully functional forensic audit department with experienced and qualified personnel and also fairly allocate training sessions to all four departments of the firm regardless of what percentage it constitutes on the clientele base if the forensic service provision was to be effective.

However 5% of the respondents disagree that training has an impact on the effectiveness of forensic audit meaning there is a negative relationship between the level of training and the effectiveness of forensic audit because as the forensic auditors upgrade their skills the fraudsters also improve theirs making it difficult for forensic auditors to keep up with the changes in technology. This was upheld by [Odunayo \(2014\)](#) who posited that as forensic examiners fail to win fraud cases the fraudsters keep on upgrading their systems making it hard for forensic auditors to recognize fraud hence an expansion in forensic accounting administrations is trailed by a reduction in the capacity to detect fraud. It was therefore found that training has an impact on the effectiveness of forensic audit as 95% of the respondents together with 2 interviewees were in agreement with this view, Training sessions for forensic audit should therefore be held so as to further equip existing auditors with knowledge of forensics and improve their capabilities.

19 respondents 11 strongly agree (58%), 7 agree (37%) and 1 disagrees (5%) that the availability of resources has an impact on the ability of forensic audit to detect and prevent fraud. Summation of those in agreement amounts to 18 respondents (95%) and this means that they share the view that as resources become adequate the ability to detect fraud increases. As indicated by [Njanike et al. \(2014\)](#) most forensic audit

divisions experience lack of resources making it hard for them to fulfill their obligations. Onodi et al. (2015) managed to uncover that forensic review end up being ineffectual in the Nigerian stock market since the forensic examiners lack specialized skill and resources. Annual Progress Report (2018) the firm turned down a number of forensic audit engagement requests as they were complex and could possibly strain the firm's resources as it had no adequate resources to carry out the audit. 5% of the respondents disagreed that the availability of resources influenced the effectiveness of forensic audit. Adeidre (2016) discusses how the issue of resources is based on opinions as a firm could need human resources yet it has the sufficient software required hence a couple of individuals would still be able to carry out the forensic audit as long as they have an idea of how the software works. Moreover the researcher concludes that there is a positive relationship between the availability of resources and the effectiveness of forensic audit as only 5% of the respondents disagree leaving 95% in agreement. The audit firm should establish a fully functional forensic department with adequate resources so as to improve the quality of its services.

10 respondents strongly agreeing (53%), 5 respondents agreeing (26%) and 4 respondents (21%) disagreeing that knowledge and level of education have an impact on the effectiveness of forensic audit. In aggregate 15 respondents (79%) agree with this view that the higher the level of knowledge and experience the higher the ability to detect and prevent fraud effectively. The majority of Chartered Accountants and University instructors are of the view that accountants do not have the ability to complete forensic examinations as college degrees offered in developing nations do not focus much on the forensics field and if they do forensic examinations they are probably going to be inadequate. Asare et al. (2015) proceeds to reveal that the audit procedure, training and knowledge play a noteworthy and generally equivalent role in restraining auditors from viably detecting fraudulent exercises. However 4 respondents (21%) disagreed with this view as there are other factors which contribute to the effectiveness of forensic auditing such as level of education and exposure. According to Oyedokun (2015) and Egbunike and Ekofo (2017) affirmations are acceptable yet further graduate training and development in education are the imperative if one is to be the perfect forensic examiner. The researcher therefore concluded that training increases the effectiveness of forensic audit as 79% of the respondents together with one interview respondent were in support of this view.

10 respondents (53%) strongly agree, 8 (42%) agree and 1 (5%) disagrees that practical experience has an impact on the ability of forensic auditors to detect fraud. 95% of the respondents therefore agree that the higher the practical experience the higher the effectiveness of forensic audit. Peter et al. (2014) and Soltani (2014) showed that upgrades in the Information Communication Technology world required forensic auditors with great experience and computer abilities to identify extortion. Soltani (2014) proceeds to reveal that lower level auditors are more frequently vulnerable to zones of the audit that show extortion but since they lack understanding and information about fraud, they fail to identify fraud when it is happening prompting the entire group being wasteful. As indicated by Nunn et al. (2017) the most significant ability is down to earth experience increased through developing in the profession and furthermore the experience of dealing with complex fraud cases in law enforcement for quite long offers priceless information. Complaints from the staff engaged in the forensic audit indicated that they took more time than expected due to lack of practical business experience in the forensic field, Staff Reports (2019). Annual Progress Report (2019) also recommended the firm establishes a fully functional forensic department with experienced people if provision of forensic services is to be effective.

On the other hand, 5% of the respondents disagree that practical experience influences forensic audit's effectiveness. Oyedokun (2015) posited that experience only is not enough but forensic auditors require further training and education and advancement so as to be aware of any changes of the surrounding environment. In conclusion it was found that the level of practical experience significantly influences the effectiveness of forensic audit as 95% of the respondents agree that indeed it does. The firm should employ qualified personnel and also consider their work experience as this is vital in increasing the effectiveness of forensic auditors.

17 out of 19 respondents (89%) agree that there is a difference between external auditors whilst 2 out of 19 respondents (11%) do not agree. This was an open ended question and various reasons were given as to why there were differences or not. 10 respondents (53%) indicated that it was because of the differences in their objectives. On the other hand 4 respondents (21%) revealed that it was as a result of the scope of the audit that whereas external auditors carry out their audits on a sample basis forensic auditors carry out theirs on a 100% basis. 3 respondents (15%) indicated that the difference was as a result of knowledge levels.

Moreover 89% of the respondents agree that there is a difference. The Annual Progress Report (2019) indicated that the decrease in the external audit clientele base from 80 clients to 74 clients in 2019 was as a result of having invested so much time and external audit personnel in the forensic audit engagement accepted in 2019 such that the external audit department was understaffed and unable to meet deadlines for the other clients. Engaging with external auditors in a forensic engagement is an issue as indicated by Okoye and Gbegi (2014) who are of the thought that there is a noteworthy contrast between external and forensic auditors as external auditors do not or might not have sufficient abilities to handle modern fraud like clerical violations, for example, security frauds and misappropriation.

However 2 respondents (11%) indicated that there were no differences as both auditors were capable and necessary for the detection of fraud. This view was supported by Nwanko (2014) who indicated that external and forensic auditors are of paramount importance as they both play a retrospective control of the financial

information with a goal of identifying fraud. In conclusion it is only reasonable that the researcher concludes that there is a significant difference between external and forensic auditor because 89% of the respondents backed by all 3 interview respondents agree that there is a difference. The Chartered Accountancy firm could train its external auditors in the field of forensics, arrange training and development programs and even help them acquire additional courses with regards to the forensic field such that there is not much difference between the two types of auditors as both can effectively carry out forensic audits.

Table-2. Data analysis using the multiple regression method.

Variable	Coefficient	Standard Error	Probability
Constant	.4755385	1.247921	0.38
Training	.1974458	.4289491	0.46
Resource	-.2374163	.4118295	-0.58
Education	.3798853	.2877622	1.32
Experience	-.3208869	.3291069	-0.98
Financial Investigation	-.1987186	.2590068	-0.77
Litigation	.1095899	.2340503	0.47

Note: R-squared 0.4827

The regression model will be as follows

$$\text{FraudDctn} = 0.4755385 + 0.1974458Tr - 0.2374163Res + 0.378853Edu - 0.3208869Exp - 0.1987186Fin + 0.1095899Lit$$

The model is significant in explaining the effectiveness of forensic auditing in detecting fraudulent activities at 5% level of significance. The R-Squared of 0.4827 shows that the logarithm of fraud is explained by the logarithms of training, availability of resources, education, experience, financial investigation and litigation. There is a positive relationship between training and the ability to detect fraud, hence a 1% increase in training leads to an increase in ability to detect and prevent fraud. In the model, there is a positive relationship between fraud detection and level of education. This specifically implies that on average adding 1% on the education brings about a 38% increase in the ability to detect and prevent fraud. More so, there is a positive relationship between fraud detection and litigation. This specifically indicates that on average adding 1% on the litigation brings about an 11% increase on ability to detect fraud. According to the model financial investigation, availability of resources and experience have a negative relationship with fraud detection. This means an increase in resources and experience does not guarantee an increase in ability to detect fraud.

6. Major Research Findings

This study established that training and level of education have a positive impact on the effectiveness of forensic auditing. Essentially the more the auditors are trained in the field of forensics the better the quality of forensic auditing service offered. The higher the level of education possessed by an auditor the more effective the forensic audit service offered. This relationship was further strengthened by the multiple regression analysis which proved that as each of these factors increases fraud levels decrease. The study also unearthed that there is a significant difference between the two types of auditors, that is, the forensic auditor and the traditional auditor. However the traditional auditor can still carry out a forensic audit even though it may be a struggle due to issues of knowledge and expertise. Consequently the attributes possessed by the forensic auditors are still required to detect fraud making the forensic auditor the right candidate to carry out forensic engagements for purposes of effectiveness. These include education, knowledge and training which play a vital role in the effectiveness of forensic audit. The research found that litigation support is of paramount importance in the prevention and detection of fraud. It discourages unethical conduct within an organization hence preventing questionable activities. However the research revealed that the success of litigation in curbing extortion depends on the quality of information presented before the court. A combination of information gathered by the forensic auditor that can be introduced in a court of law in order to settle ongoing financial disagreements at the same time providing litigation support service forms the whole package of an effective forensic audit.

7. Recommendations

In order to boost the effectiveness of forensic auditing at the Chartered Accountancy firm should include forensic audit training sessions in its training calendar for the year as study revealed that training has a positive impact on the effectiveness of forensic audit. This could also be achieved through attending other training and development programs. The firm should also establish a fully functional forensic audit department with adequate resources required by forensic auditors as the employees indicated that lack of resource is an inhibiting factor. The firm should also consider recruiting professional forensic auditors as knowledge and skill of the auditor is also a contributing factor towards the effectiveness of forensic auditing. The skilled professionals can also assist in training the junior auditors thereby improving the quality of the service.

References

- Ab Majid, R., Mohamed, N., Haron, R., Omar, N. B., & Jomitin, B. (2014). *Misappropriation of assets in local authorities: A challenge to good governance*. Paper presented at the International Conference on Accounting Studies (ICAS) 2014.
- Abdi, A. G. (2017). *The impact of forensic audit services on fraud detection among commercial banks in Kenya*. Unpublished Master of Science in Finance Project, School of Business, University of Nairobi.
- Abdul, B. (2018). Fraud prevention in private sector organizations. *International Journal of Economics and Business Management Research*, 2(1), 15-27.
- Abdullahi, R., & Mansor, N. (2015). Concomitant debacle of fraud incidences in the Nigeria public sector: Understanding the power of fraud triangle theory. *International Journal of Academic Research in Business and Social Sciences*, 5(5), 312-326. Available at: <https://doi.org/10.6007/ijarbss/v5-i5/1641>.
- Aborbie, S. (2015). Narrowing the gap of financial fraud detection in corporations. Waldern doctoral studies. *Journal of Accounting Commons and the Finance and Financial Management Commons*, 12(1), 45-62.
- Adeidre, T. O. (2016). Relationship between forensic accountants' competences and expectation gap: Evidence from Nigeria money deposit banks. *Jomo Kenyatta University of Agriculture and Technology*, 4, 1-9. Available at: <https://doi.org/10.11648/j.jfa.20160401.12>.
- Aduwo, O. O. (2016). The role of forensic accounting in combating the menace of corporate failure. *International Journal of Economics, Commerce and Management*, 4(1), 640-649.
- Agbaje, W. (2017). Effects of forensic auditing services on fraud reduction in the Nigerian banking industry. *Advances in Social Sciences Research Journal*, 4(12), 33-56. Available at: <https://doi.org/10.14738/assrj.412.3342>.
- Agbaje, W., Busari, G., & Adeboye, N. (2014). Effectsof accounting information management on profitability in Nigerian banking industry. *International Journal of Humanities, Social Sciences and Education*, 1(9), 100-105.
- Agbiogwu, A., Ihendinihu, J., & Okafor, M. (2016). Impact of environmental and social costs on performance of Nigerian manufacturing companies. *International Journal of Economics and Finance*, 8(9), 173-180. Available at: <https://doi.org/10.5539/ijef.v8n9p173>.
- Agrawal, A., & Cooper, T. (2017). Corporate governance consequences of accounting scandals: Evidence from top management. *CFO and Auditor Turnover Journal of Finance*, 1(5), 24-56.
- Akelola, S. (2015). Prosecuting bank fraud in Kenya: Challenges faced by the banking sector. *Journal of Finance and Management in the Public Sector*, 14(1), 60-78.
- Akelola, S. (2014). Prosecuting bank fraud in Kenya: Challenges faced by the banking sector. *Journal of Finance and Management in Public Services*, 14(1), 14-19.
- Akenbor, C. O. (2014). Forensic auditing techniques and fraudulent practices of public institutions in Nigeria. *Journal of modern Accounting and Auditing*, 4(10), 43-64.
- Akomolafe, J. A., Eluyela, D. F., Ilogho, S. O., Egharevba, J. W., & Aina, O. (2017). Financial crime in Nigeria public sector: A study of Lagos state ministries. *International Journal of Innovative Research in Social Sciences & Strategic Management Techniques*, 4(1), 13-21.
- Alabdullah, Y. T. T. (2014). The role of forensic accounting in reducing financial corruption'International. *Journal of Business and Management*, 9(1), 96-105.
- Alao, A. (2016). Forensic audit and financial fraud in Nigerian deposit money banks. *European Journal of Accounting Auditing and Financial Research*, 4(8), 1-19.
- Albrecht, C., Holland, D., Malagueño, R., Dolan, S., & Tzafirir, S. (2015). The role of power in financial statement fraud schemes. *Journal of Business Ethics*, 131(4), 803-813.
- Ali, I. (2017). The effect of internal audit on financial performance on microfinance institutions in Kenya. *International Journal of Business and Management*, 2(3), 4-10.
- Annual Progress Report. (2017). PKF chartered accountants and business advisors, Zimbabwe.
- Annual Progress Report. (2018). PKF chartered accountants and business advisors, Zimbabwe.
- Annual Progress Report. (2019). PKF chartered accountants and business advisors, Zimbabwe.
- Asare, S. K., & Wright, A. M. (2014). The effectiveness of alternative risk assessment program and planning tools in a fraud setting. *International Journal of Business and Management*, 1(2), 23-37.
- Asare., S. K., Arnie, W., & Mark, F. Z. (2015). Challenges facing auditors in detecting financial statement fraud: Insights from fraud investigations. *Journal of Forensic and Investigative Accounting*, 7(2), 1-50.
- Augustine, E., & Uagbale-Ekatah, R. (2014). The growing relevance of forensic accounting as a tool for combating fraud and corruption: Nigeria experience. *Research Journal of Finance and Accounting*, 5(2), 71-77.
- Bassey, E. B. (2018). Effect of forensic accounting on the management of fraud in microfinance institutions in cross river state. *Journal of Economics and Finance IOSR-JEF*, 1(1), 2-9.
- Basu, S. (2014). Forensic accounting in the cyber world: A new challenge for accountants. *The Management Accountant Journal*, 49(9), 18-21.
- Boateng, A., Boateng, G., & Acquah, H. (2014). A literature review of fraud risk management in microfinance Institutions in Ghana. *Research Journal of Finance and Accounting*, 5(11), 17-39.
- Bosse, D. A., & Phillips, R. A. (2016). Agency theory and bounded self-interest. *Academy of Management Review*, 41(2), 276-297. Available at: <https://doi.org/10.5465/amr.2013.0420>.
- Brinkman, A. (2014). *Finance ethics: Critical Issues in theory and practice*. New Jersey, New York: John Wiley and Sons.
- Bryman, A., & Bell, E. (2015). *Business research methods*. Oxford University Press.
- Chartered Accountancy Firm's Training Log Book. (2017).
- Comer, M. J. (2017). Stage A initial suspicions and information. *Investigating Corporate Fraud*, 133-138.
- Dada, O. S. (2014). Forensic auditing technique: A means of successful eradication of corruption through fraud prevention, bribery prevention and embezzlement prevention in Nigeria. *Nigeria/Kurwait Chapter of the Arabian Journal of Business Management and Economic Research*, 4(1), 125-142.

- Deb, S., & Sengupta, S. (2020). What makes the base of the pyramid susceptible to investment fraud. *Journal of Financial Crime*, 27(1), 143-154. Available at: <https://doi.org/10.1108/JFC-03-2019-0035>.
- DeZoort, F. T., & Harrison, P. D. (2018). Understanding auditors' sense of responsibility for detecting fraud within organizations. *Journal of Business Ethics*, 149(4), 857-874.
- DiNapoli, T. P. (2016). Red flags for fraud' State of New York Office of the State Comptroller. Retrieved from: [https://www.osc.state.ny.us/localgov/pubs/red_flags_fraud.pdf\(2008\)](https://www.osc.state.ny.us/localgov/pubs/red_flags_fraud.pdf(2008)).
- Dozier, J. B., & Miceli, M. P. (2015). Potential predictors of whistleblowing: A prosocial behavior perspective. *Academy of Management Review*, 10(4), 823-826.
- Eferakeya, I., Enaibre, I. F., & Offor, N. T. (2016). The relationship between corporate governance and fraud prevention in Nigeria: A perceptual view *Journal of Social and Management Sciences*, 11(3). Available at: 10.5987/UJ-JSMS.17.052.3.
- Egbunike, F. C., Egbunike, P. A., & Okafor, G. O. (2017). Audit firm attributes and bank failures in Nigeria. *International Journal of Economics and Business Administration*, 3(3), 20-31.
- Ehioghiren, E. E., & Atu, O. (2016). Forensic accounting and fraud management: Evidence from Nigeria. *Igbinedion University Journal of Accounting*, 2(8), 245-308.
- Eliezer, O., & Emmanuel, B. (2015). Relevance of forensic accounting in the detection and prevention of fraud in Nigeria. *International Journal of Accounting Research*, 2(7), 67-77. Available at: <https://doi.org/10.12816/0017351>.
- Enofe, O. A., Omagbon, P., & Ehiglaton, I. F. (2014). Forensic audit and corporate fraud. *International Journal of Economics and Business Management*, 1(7), 17-22.
- Enofe, A. O., Olorunnuho, M. S., & Okporua, A. O. (2016). Forensic audit and fraudulent financial reporting in Nigeria. *Journal of Accounting and Financial Management*, 2(1), 45-67.
- Enofe, A. O., Ekpulu, G. A., & Ajala, T. O. (2015). Forensic accounting and corporate crime mitigation. *European Scientific Journal*, 11(7), 167-180.
- Eyisi, A., & Agbaeze, E. (2014). The impact of forensic audit in corporate governance. *International Journal of Development and Sustainability*, 3(2), 404-417.
- Ezejiyor, R. A., Nwakonu, P. N., & Okoye, J. F. (2016). Impact of forensic accounting on combating fraud in Nigerian banking industry. *International Journal of Academic Research in Management and Business*, 1(1), 1-19.
- Fazli, S. A., Mohd, T. I., & Mohamed, M. Z. (2015). Fraud risk factors of fraud triangle and the likelihood of fraud occurrence: Evidence from Malaysia. *Information Management and Business Review*, 6(1), 1-7.
- Gbegi, D. O., & Adebisi, J. F. (2015). Fraud. *Journal of Good Governance and Sustainable Development in Africa*, 2(4), 45-60.
- Gill, J. (2017). The fraud triangle on trial. *Journal of Financial Crime*, 21(5), 419-421.
- Gregory, R. (2015). Political independence, operational impartiality and the effectiveness of anti-corruption agencies. *Journal of Asian Education and Development Studies*, 4(1), 125-142.
- Gupta, A. K. (2014). A conceptual JIT model of service quality. *International Journal of Engineering Science and Technology*, 3(3), 2214-2227.
- Haniffa, R., & Hudaib, M. (2007). Locating audit expectations gap within a cultural context: Case of Saudi Arabia. *Journal of Accounting and Auditing and Tax*, 16(2), 179-206. Available at: <https://doi.org/10.1016/j.intaccaudtax.2007.06.003>.
- Huber, W. (2017). Forensic auditing, fraud theory and the end of the fraud triangle. *Journal of Theoretical Accounting Research*, 12(2), 28-48.
- Ibrahim, A., Madawaki, M. D., & Usman, F. (2014). Managing bank fraud and forgeries through effective control strategies: A case of central bank of Nigeria, Gombe Branch. *International Journal of Business and Management Invention*, 3(4), 07-17.
- Igbaekemen, G., Abbah, M., & Geidam, M. (2014). The effect of corruption on socio-economic development of Nigeria. *Canadian Social Science*, 10(6), 149-157.
- Ijeoma, N. B. (2014). Bridging the expectation gap in auditing. *International Journal of Technology and Engineering Research*, 2(5), 120-127.
- Iyer, N., & Samociuk, M. (2016). Fraud and corruption: Prevention and detection (pp. 33-40): Gower Publishing Ltd.
- Jizi, M., & Nehme, R. (2018). Board monitoring and audit fees: the moderating role of the CEO/ chair dual roles. *Managerial Auditing Journal*, 33(2), 217-243.
- Kabue, L. N. (2015). The effect of internal controls on fraud detection and prevention among commercial banks in Kenya. *Journal of Emerging Trends in Economics and Management Sciences*, 3(3), 191.
- Kingsly, M. (2015). The role of forensic investigation professionals in the prevention of fraud and corruption in developing countries. *International Journal of Corruption in Developing Countries*, 2, 1-11. Available at: SSRN 2605811.
- Knezevic, G. (2015). The characteristics of forensic audit and differences in relation to external audit. *FINIZ 2015-Contemporary Financial Management*, 202-205.
- Lanza, R. B., Gilbert, S., & Lamoreaux, M. (2014). A risk based approach to journal entry testing. *Journal of an Accountant*, 204(1), 19-23.
- Lawal, B. A. (2017). Effect of cost control and cost reduction techniques in organizational performance. *International Business and Management*, 14(3), 19-26.
- Lin, Y. (2014). Corporate governance, leadership structure and CEO compensation: Evidence from Taiwan. *An International Review Journal*, 13(2), 5-8.
- Lokanan, M. (2015). Challenges to the fraud triangle: Questions on its usefulness. *Accounting Forum*, 39(3), 201-224.
- Macdonald, C. (2015). *Managing the dilemma of balancing revenue growth and cost containment*. Doctoral Dissertation, University of Pretoria.
- Magali, J. J., & Qiong, Y. (2014). Commercial banks vs rural SACCOS credit risk management practices in Tanzania. *Journal of Economics and Sustainable Development*, 5(2), 42-51.

- Magali, J. J. (2014). Effectiveness of loan portfolio management in rural SACCOS: Evidence from Tanzania. *Business and Economic Research, 4*(1), 299-318.
- Manas, C. (2014). Problems and prospects of forensic auditing profession in India. *Journal of Informative and Futuristic Research, 2*(1), 1-9.
- Mansor, N. (2015). Fraud triangle theory and fraud diamond theory. Understanding the convergent and divergent for future research. *International Journal of Academic Research in Accounting, Finance and Management Sciences, 1*, 38-45.
- Maulidi, A. (2016). *Dealing with fraudulent financial statements in business organizations through the whistleblowing system and staff awareness of fraud*. Paper presented at the Proceedings of the International Conference on Accounting Studies (ICAS).
- McWilliams, J. M. (2016). *Cost containment and the tale of care co-ordination*. England: Massachusetts Media Society.
- Morales, J., Gendron, Y., & Guénin-Paracini, H. (2014). The construction of the risky individual and vigilant organization: A genealogy of the fraud triangle. *Accounting, Organizations and Society, 39*(3), 170-194. Available at: <https://doi.org/10.1016/j.aos.2014.01.006>.
- Mukoro, D. O., Yamusa, O., & Faboyede, O. S. (2014). The role of forensic auditing in fraud detection and national security BVIMSR's. *Journal of Management Research, 5*(1), 40-47.
- Muriithi, J., Mwikamba, T., & Rossana, D. (2016). Effectiveness of corporate governance on detection of accounting fraud within Kenyan universities. *International Journal of Social Sciences and Information Technology, 2*(6), 41-55.
- Muthusamy, G. (2016). *Behavioral intention to use forensic accounting services for the prevention and detection of fraud by large Malaysian companies*. Doctoral Dissertation, Curtin University.
- Mutua, C. (2014). The effect of fraudulent activities on the growth of insurance companies in Kenya. *Journal of Management, 2*(16), 301-317.
- Ng'ang'a, J. K. (2015). The effect of forensic auditing services on fraud prevention in insurance companies. *International Journal of Business and Social Sciences, 4*(9), 123-132.
- Nipion, S. (2015). Bank fraud and the Nigerian economy: A psycho-economic analysis. *IOSI Journal of Social Science and Humanities, 1*(1), 30-36.
- Njanike, K., Dube, T., & Mashayanye, E. (2014). The effectiveness of forensic auditing in detecting, investigating and preventing bank frauds. *Journal of sustainable development in Africa, 10*(4), 405-425.
- Nunn, L., Mcguire, B., Whitcomb, C., & Jost, E. (2017). Forensic accountants: Financial investigators. *Journal of Business and Economics Research, 4*(2), 1-6.
- Nwanko, O. (2014). Impact of corruption on economic growth in Nigeria. *Mediterranean Journal of Sciences, 5*(6), 41-46.
- Odelabu, A. T. (2014). Effects of forensic accounting on the financial performance of commercial banks in Nigeria. *Journal of Finance and Accounting, 5*(8), 65-79.
- Ogunayo, B. (2014). *Fraudulent financial reporting: The Nigerian experience*. Paper presented at the The Clute Institute International Conference' San Antonio Texas, USA.
- Okolie, A., & Taiwo, A. (2014). The application of information technology to forensic investigations in Nigeria. *Journal of Sustainable Development in Africa, 10*(6), 460-490.
- Okoye, & Gbegi. (2014). Forensic auditing: A tool for fraud detection and prevention in the public sector. *International Journal of Academic Research in Business and Social Sciences, 3*(3), 37-46.
- Okoye, E. I. (2016). *Anatomy of fraud and corruption in Nigeria: A search for the pandora box and panacea*. Okoye, EI (2016). *Anatomy of Fraud and Corruption in Nigeria: A Search for the Pandora Box and Panacea*. Paper presented at the 32nd Inaugural Lecture of Nnamdi Azikiwe University, Awka, Anambra State, Nigeria.
- Okunbor, J. A., & Obaretin, O. (2010). Effectiveness of the application of forensic accounting services in Nigerian organisations. *Journal of Management Sciences, 1*(1), 171-184.
- Olaoye, C., & Dada, R. (2014). An analysis of frauds in banks: Nigeria's experience. *European Journal of Business and Management, 6*(31), 90-99.
- Olatunji, O. C., & Adekola, D. R. (2017). The roles of auditors in fraud detection and prevention in Nigeria deposit money banks: Evidence from Southwest. *European Scientific Journal, 13*(31), 290-306. Available at: <https://doi.org/10.19044/esj.2017.v13n31p290>.
- Omar, N., & Bakar, K. (2014). Fraud prevention mechanisms of Malaysian government-link companies. An assessment of existence and effectiveness. *Journal of Modern Accounting and Auditing, 8*(1), 15-31.
- Onodi, B. E., Okafor, T. G., & Onyali, C. I. (2015). The impact of forensic investigative methods on corporate fraud deterrence in banks in Nigeria. *European Journal of Accounting Auditing and Finance Research, 3*(4), 69-85.
- Osunwole, O., Adeleke, K., & Henry, P. (2015). Forensic accounting: An antidote to fraud in Nigeria money deposit banks. *International Journal in Management and Social Sciences, 3*(4), 32-42.
- Oyedokun, G. (2017). Forensic auditing techniques, tax justice and federally collected tax revenue in Nigeria' 2000-2016.
- Oyedokun, G. (2015). Forensic investigation and forensic audit methodology in a computerized work environment. Available at: SSRN 2593263.
- Oyedokun, G. (2016). Forensic accounting investigation techniques: Any rationalization? Available at: SSRN 2910318.
- Paden, J. N. (2016). *Muhammadu Buhari: The challenges of leadership in Nigeria*: Roaring Forties Press.
- Pany, O. W. (2014). *Principles of auditing and other assurance services*. New York: McGrawhill.
- Peter, M., Aliyu, D. E., Ebong, I. G., & Abba, O. Z. (2014). Application of forensic auditing in reducing fraud cases in Nigerian money deposit banks. *Global Journal of Management and Business Research, 14*(3), 17.
- Petraşcu, D., & Tieanu, A. (2014). The role of internal audit in fraud prevention and detection. *Procedia Economics and Finance, 16*(8), 489-497. Available at: [https://doi.org/10.1016/s2212-5671\(14\)00829-6](https://doi.org/10.1016/s2212-5671(14)00829-6).
- Popoola, O. M. J., Che-Ahmad, A., & Samsudin, R. S. (2014). Forensic accounting and fraud: Capability and competence requirements in Malaysia. *Journal of Modern Accounting & Auditing, 10*(8), 825-834.
- Rahman, R. A., & Khair, A. I. (2016). Types of fraud among Islamic banks in Malaysia. *International Journal of Trade, Economics and Finance, 5*(2), 176-179.

- Ramadhan, S. (2015). Certified accountants' perceptions of forensic accounting education: The case of Bahrain. *International Journal of Finance and Accounting*, 4(2), 109-118.
- Ramaswamy, S. (2017). Fraud detection for facial recognition systems. U.S. Patent. 9, 836,642.
- Report to Management. (2019). PKF chartered accountants and business advisors, Zimbabwe.
- Rohana, O., Aris, N. A., Mardziyah, A., Zainan, N., & Amin, N. M. (2015). Fraud detection and prevention methods in the Malaysian public sector: Accountants' and internal auditors' perceptions. *Procedia Economics and Finance*, 28, 59-67. Available at: [https://doi.org/10.1016/s2212-5671\(15\)01082-5](https://doi.org/10.1016/s2212-5671(15)01082-5).
- Sang, M. J. (2014). Determinants of fraud control measures in commercial banks: A survey of selected commercial banks in Nakuru town, Kenya. *International Journal of Science and Research*, 3(10), 2178-2183.
- Seitz, J., Oeding, J., & Wiese, M. (2015). Is it ethical for the US government to offer financial awards to potential whistleblowers of financial statement fraud and internal controls violations? *Journal of Theoretical Accounting Research*, 10(2), 68-90.
- Sikka, P. (2015). The corrosive effects of neoliberalism on the UK financial crisis and auditing practices: A dead end for reforms. *Accounting Forum*, 39(1), 1-18. Available at: <https://doi.org/10.1016/j.accfor.2014.10.004>.
- Smith, G., & Crumbley, D. (2014). Defining forensic accounting. *Journal of Digital Forensic, Security and Law*, 4(1), 61-80.
- Soltani, B. (2014). The anatomy of corporate fraud: A comparative analysis of high profile American and European corporate scandals. *Journal of Business Ethics*, 120(2), 251-274. Available at: <https://doi.org/10.1007/s10551-013-1660-z>.
- Staff Reports. (2019). PKF chartered accountants and business advisors, Zimbabwe.
- Taylor, J. E., Dossick, C., & Garvin, M. (2014). Meeting the burden of proof with case study research. *Journal of Construction Engineering and Management*, 137, 303-311.
- Uwalomwa, U., Ranti, U., Kingsley, A., & Chinenye, A. (2016). Tax incentive and growth of manufacturing firms in Nigeria. *The Social Sciences Medwell Journals*, 1338-1342.
- Wells, J. T. (2014). *Principles of fraud examination*. London: John Wiley and Sons.
- Yego. (2016). *Impact of fraud in the banking industry: A case of stanard chartered bank*. Doctoral Dissertation, United States Interantional University-Africa.
- Zhaol, N., Yen, D., & Ghang, I. (2014). Auditing in the E-commerce era. *Information Management and Computer Science*, 12(5), 389-400.