

**REVIEW ON CHARACTERISTICS AND SKILLS OF FORENSIC
ACCOUNTANTS: EFFECTS ON FINANCIAL FRAUD CONTROL AND
SUSTAINABILITY**

Eboh Saturday Dominic¹ Eyide Michael Ugeoritsete²

^{1&2}*Department of Accounting, Faculty of Management Sciences, University of
Delta, Agbor, Delta State, Nigeria.*

Email: dominic.eboh@unidel.edu.ng¹; eyidemichael@yahoo.com²

All correspondence to: dominic.eboh@unidel.edu.ng

ABSTRACT

The rate at which certified public accountants and other professionals are drifting to providing forensic accounting services suggest the need for providing insight and training on the requisite characteristics, core and enhanced skills needed to qualify individuals as forensic accountants. In this regard, forensic accountants' skills are accessible to be well designed and appropriate for effective financial fraud control. It appears that there are quality identified skills and characteristics of forensic accountants that would make forensic accountants competent, however, forensic accountants would fail in their functions where these skills and traits/characteristics do not reflect in them. The skills set required in one area can leverage skills and abilities while working on a different assignment. Hence, this study carried out a desktop research on the investigate skills and characteristics and sustenance of forensic accountant. It was suggested that institutions of learning should design curriculum that will train, assess and grade prospective forensic accountants in character and learning in order to sustain amongst other measures, forensic accounting career.

Key words: *Characteristics, Core Skills, Forensic Accountants, Financial Fraud Control.*

CITE AS: Dominic, E.S. & Ugeoritsete, E.M. (2024). Review on characteristics and skills of Forensic Accountants: Effects on financial fraud control and sustainability, *International Review of Financial Studies*, 1(2), 180 - 208. Available: <https://journals.unizik.edu.ng/irofs>

1. INTRODUCTION

Forensic accounting as it relates to skills, characteristics could not be fathomed where methods, process, and function involved in forensic accounting are left out. Historically, forensic accounting originated from Kutilya, the first economist to openly recognize the relevance of forensic accountants and was improved on by Peloubet in 1946 (Joshi, 2003). Meanwhile, Crumbley (2001) as cited in Davies et al.(2010), asserted that forensic accounting is traceable to an 1817 court decision. He stated that a “young Scottish accountant issued a circular advertising his expertise in arbitration support in 1824” but did not coin forensic accounting. Forensic accounting practice got little attention in the past, but today it has gained prominence because of increase in financial scandals (Zachariah et al, 2014). Fraudulent practices and failures of many businesses have caused loss of confidence on financial reporting by stakeholders as accounting auditors objectives could not proffer viable solutions

to the financial reporting problems, and this has increased the growth in demand for forensic accounting (Huber, 2012 as cited in Enofe et al., 2013). In UK, PWC was fined 15m pound for failing to disclose a number of audit red flag and act accordingly at a failed London Capital and Finance in 2024. In same year, Chinese finance ministry declared that PWC faces a six-month business ban with about 56m dollars fine for shoddy audit reporting at Evergrande in China. In March 2023, Deloitte branch in Beijing China was fined 211.9m Yuan and suspended for three months after serious deficiency was found in its audit of China Huarong Asset management (The Financial Times, 2024)

In Nigeria, Abel Onyeka an audit partner of Agbo Abel and co was suspended by FRCN for auditing unprofessionally and generating inappropriate audit evidence devoid of diligence, skepticism and due care (Abimbola, 2024). Forensic accountancy, forensic accounting, financial forensics is a field of accounting that defines the engagement that result from actual or anticipated disputes or litigation and has attracted attention because of persistent occurrence of frauds (Wikipedia, 2017). In other words, forensic accountants carry out the activities of forensic accounting and forensic accountants become forensic auditors (Imoniana et al, 2013). Hence forensic auditing and forensic accounting are relative and these concepts have been explained by some authors and scholars as one and same (Ichalkaranji, 2014; Zachariah et al, 2014; Wikipedia, 2017). They posited further that an accounting auditor is not effective in its preventive role, and has not integrity which is an essential quality of an auditor.

Forensic accounting is a science that use the application of accounting facts and concepts obtained from auditing methods, techniques and procedures to unravel legal matters, which need both investigative, accounting, and auditing skills (Arokiasamy & Cristal, 2009; Dhar & Sarkar, 2010; Stanbury & Paley-Menzies, 2010; Lafountain, 2016; Nwoye & Ogbodo, 2021). Joshi (2003) stated that forensic accounting is the use of specialized knowledge and specified skill to obtain evidence of economic transactions. On the other hand, forensic accounting is seen as a combination of auditing, accounting and investigative skills (Lafountain, 2016). While Howard and Sheetz (2006) opined that forensic accounting is the process of interpreting, summarizing and presenting complex financial matters explicitly, succinctly and factually usually in the judiciary as an expert witness. Forensic accounting has several components. Ichalkaranji (2014) sees the components to include “technical aspects; financial and accounting review; digital forensic analysis; field investigations; data mining at an advanced level; application of interviewing skills; technical assistance such as handwriting,

specimen signatures, QC evaluation, et cetera. Okoye and Gbegi (2013) and Preber (2014) viewed it from two dimensions: litigations service which recognizes the role of a forensic accountant as an expert consultant and investigative service that uses a forensic accountant's skills which may require court room testimony. Dada et al, (2013) extended it to dispute resolution which recognizes a forensic accountant as a mediator and or arbitrator. Forensic accounting was established to close the lacuna created in the field of auditing because it examines every perspective of the company to obtain sufficient and reliable evidences to control fraud matters amongst others and also performs important role in providing litigation services to resolve financial matters. Modugu and Anyaduba (2013); Gbenji and Okoye (2013); Enofe et al,s (2013); Enofe et al (2015); Adebisi et al (2016); Amake and Ikhatua (2016); Ogudana et al, (2018), and Ochuka, Nwoye and Okoye (2022) argued that there is a consensus amongst stakeholders that forensic accountant is effective in fraud control as well as improving financial reporting and internal control. This findings were validated in Dominic, Omoye and Odubuasi (2024) empirical study on characteristics and skills of forensic accountant for effective financial fraud control in Nigeria wherein forensic personal characteristics, core skills and enhance skills were found enough requirement for forensic accountant to prevent, detect and control financial frauds.

In ensuring that forensic accountants reflects in practice the ideals of their traits/characteristics and skills set, Popoola et al. (2015), McMullen and Sanchez (2010) Degabriele (2008), Calos et al. (2017), Bhasin (2013) carried out studies on the forensic accountants characteristics and skills which were conceptualised in different perspectives revealing inconsistency in prior authors studies. Hashim and Rehman (2018) described them as characteristics and skills of forensic accountant. Popoola et al. (2015), and McMullen and Sanchez (2010) used a conceptual framework of knowledge requirement and skills requirement (KR and SR) to describe forensic accountants' characteristics and skills. Similarly Popoola et al. (2017) used a conceptual framework of Skills requirement and ethics requirement (SR and ER) while Degabriele (2008) classified the nine skills into knowledge and ability. However, Red Venture company (2024) enumerated five of the characteristics of forensic accountant and in some other study some of the enhance skills but were not extensively explained. Also a few of the characteristics were identified and explained but did not capture some other characteristics identified in other studies. However, Dominic et al. (2024) extended the discourse by the findings of their study on characteristics, core skills and enhance skills of forensic accountants

1.1 Objective

Therefore, from the prior studies on the characteristics and skills of forensic accountants, it is evident that in some studies, these characteristics and skills were repetitive, in others extensive and in others finite. In the light of this, the study objective is to carry out conceptual review on the investigated skills and characteristics of forensic accountants and modify them in a concise, coherent and cohesive path that produces a generally acceptable concept and framework; and hence, suggest an insight into sustaining the career path.

2. Literature Review

2.1 Conceptual Review

2.1.1 Forensic Accounting

Forensic accounting is a specialized field of accounting that combines accounting principles and investigative techniques to analyze financial information, detect and prevent fraud, and provide evidence for legal proceedings (Akkeren & Buckby, 2019). Forensic accounting can be considered as innovation in the field of fraud prevention and detection (Rehman & Hashim, 2018). Jacob (2021) described forensic accounting as the application of criminalist methods, and integration of accounting, investigative activities and law procedures to detect and investigate financial crimes and related accounting misdeeds. It involves the application of accounting knowledge and skills to investigate financial irregularities, assess financial damages, and uncover financial misconduct. However, forensic accounting skills, methods, process, procedure and applications are drawn from multidiscipline and it is a branch of forensic science which has different career paths. Ayas (2021) corroborated this assertion when he averred that forensic accounting is a branch of forensic science.

2.1.2 Concept of Financial Fraud

From the forensic accounting literature, it appears that the relevance of forensic accountants' competence, ability, reliability and effectiveness on fraud control will be fruitless where fraud is nonexistent as fraud and white collar crime are focal to forensic accountants (Zachariah et al, 2014). To adequately understand the concept "fraud control" it is pertinent to discuss fraud, its causes, effects, classification, symptoms and detection process. Routine Activity theory assumes that fraud occurs in business when the internal control is weak and opportunity exist for the offender to commit the fraud and states the need to employ forensic accountant to help identify the red flag (Felson & Clarke, 1998). However, fraud is said to exist in every

economy, business activities of developing and developed nations and, has received a lot of attention (Oyejide, 2008). Okafor (2004) reported that fraud is a generic term and embraces all the multifarious means which human ingenuity can devise, which are resorted to by one individual to get advantage over another in false representation and is used in various ways. Fraud is an unlawful act with deceptive mind to defraud, misrepresent that causes actual, potential financial injury, loss or damages to another (Anyanwu, 1993; Watoseninyi, 1996; Masango, 1998). David (2005) stated that occurrence of fraud is not a possibility but a probability. He also explained that fraud may be better prevented if decisions were made by a group and not an individual. Fraud is an illegal act or intended act to obtain prejudicial advantage or benefit by trick, deception, force or otherwise that cause injury or damages to another. In this light, different scholars have varied definitions of fraud. From various definitions, no standard rule is laid down for defining fraud but then it includes surprise, trick, cunning and unfair ways by which another is cheated. It is interesting to note that these definitions have certain elements in common which include intention, trick or force, deception, advantage, illegality or unjust action, injury or damages inflicted on another person or parties.

From various studies, there are different kinds of fraud in occurrence which include: tax fraud, bankruptcy fraud, theft of intellectual property and proprietary information, embezzlement, fraudulent substitution, unauthorized lending, tempering with reserves, insider abuses and forgeries, defalcation, suppression, unapproved borrowing, impersonation, teeming and lading, illegitimate use of the company's documents, creating a fictitious accounts, manipulation of vouchers, over invoicing, dry posting, inflating statistical data, ledger accounts manipulation or falsified account information, duplication of cheque books, fictitious contracts award/execution, lending to ghost workers, cross firing and kite flying, misuse of suspense accounts, computer fraud and false declaration of cash shortage (Anyanwu, 1993; Ajie & Ezi, 2000; Adeniji, 2004; Karwai, 2002; Okafor, 2004; & Ogun-Alolade, 2015 as cited in Enofe et al., 2015). It also includes kickbacks. Association of Certified Forensic Examination (ACFE) (2016) as cited in Hashim and Rehman (2018), categorised financial frauds into financial statement fraud, asset misappropriation and corruption.

2.1.3 Financial Fraud Control

Fraud control involves detection and prevention of frauds. In other words, fraud control is a holistic activities involved in preventing and detecting frauds. Detection of fraud begins with the notification of red flags which indicates that something is wrong (Ozkul & Pamukc, 2012). This precedes the hiring of a forensic accountant to investigate whether the red flag resulted from occurrence of fraud with supporting and preponderance of reliable evidence. Red flags are symptoms of frauds but do not imply that frauds have occurred, however, they call for an inquiry which may lead to an investigation (Hassink, 2010 as cited in Mohammed, 2012). Mohamed, (2012) outlined some of red flags as, “out of balance condition between a control account and its related chart of accounts which include writing off receivables as bad debts and stealing the cash received on the accounts written off; differences reported by customers; collusion between buyer and seller to process refunds for goods not returned; less responses to confirmation requests received than predicted; billing stolen merchandise to fictitious accounts; transactions without proper documentation; manipulating payroll records to divert wages, payroll taxes, or pay cheques; suspicious year-end transactions; overstating hours worked or working unauthorized overtime; transactions posted without management's specific authorization; overloading expense accounts or diverting advances to personal use; failure to correct serious weaknesses in internal control; underpaying dividends to certain investors and diverting the difference to personal use; expense accounts in use with less than desirable controls in place; paying false invoices obtained through collusion with suppliers; unclear or evasive replies to audit questions; tasks assigned to employee that do not fit job description.

Detection of frauds can be categorized into two ways such as detection by chance and conducting a decisive investigation which have resulted from initial identification of red flags. Conducting a decisive investigation, internal control should be reviewed and updated such that will prevent and detect perpetration of fraud (Sarbanes-Oxley Act of 2002 as cited in AICPA, 2002). On the other hand many fraudulent activities have been detected by chance (Alleyne, et al, 2010). Fraud detection process continues with the discovery and documentation of relevance and reliable evidences, analyzing these evidences to presenting the facts of fraud, quantifying the damages using approved theories and bases, and finally communicating articulately the forensic accountants' opinion or reports to the concerned parties (Crumbley, 2009). It has been established empirically that qualified forensic accountants are efficient and effective tool against corporate fraud (Borit et al, 2008; Dada et

al, 2013; Modugu & Anyanduba, 2013). Also, Enofe et al, (2013) stated that forensic accounting is an efficient and effective tool against corporate fraud and that the frequent utilization of forensic accounting services will significantly help in the detection and prevention of cases of fraud in businesses. Dominic et al. (2024) in their empirical study on characteristics and skills of forensic accountant for effective financial fraud control in Nigeria validated the foregoing findings that the forensic personal characteristics core skills and enhance skills are enough requirement for forensic accountant to prevent , detect and control financial frauds.

2.1.4 Challenges of Forensic Accounting Practice in Nigeria Today

The quest, in the current legal, regulatory, statutory establishment of forensic accounting practice will no doubt stimulate and enhance forensic accounting practices in Nigeria. Without the statutory backing of forensic accounting practice, however, it is worthless carrying out studies in this area. Akani and Ogbeide (2016) have identified that forensic accounting is an effective tool for financial fraud control. Enofe et al, (2016) examined the relationship between forensic accounting and corporate fraud in Nigeria and found that forensic accounting has not been effective in preventing corporate fraud in the public and private sector in Nigeria due to some factors they identified as cost of forensic accounting services and delay on the part of government to legalize the institution and practice of forensic accounting in Nigeria. They recommended among others that the Nigerian government should enact an Act that will make forensic accounting a practice in Nigeria so that corporate fraud in Nigeria can be a thing of the past. There are fundamental issues or factors that have been argued that are impeding the impact of forensic accounting as a fraud control tool in Nigeria. These issues include legal issue such as having the ability to produce admissible evidence to claim in the judiciary as corroborated by Grippo and Abex (2003) that admissibility of evidence in compliance with the laws of evidence is crucial to the prosecution of any criminal and civil claims. Oseni (2017) argued that the absence of suitable litigation support services in court could mal judgments. Similarly due to globalization and technology the person who engages in electronic fraud can perpetrate it from any part of the world and such present issue of inter-jurisdiction where issue of which of the countries laws should be enforced during the investigation.

The next is organizational issues which present issue of confidentiality on the part of the company being investigated with the fear of disclosing its financial dealings to the public and possible loss of employee trust where he/she may be threatened for providing investigators with information. Negative publicity versus tradition –some tradition forbids a younger fellow faithful exposing an elderly one connected with fraudulent practices. Also, there is issue of information gap where management will not reveal adequate information if they are involved in the defalcation. Forensic accountants must be expert in information and communication technology (ICT) because almost all frauds committed by employees and external criminals are web base (Karim et al, 2017) and this web base criminal activities are fast growing in developing countries like Nigeria (Oseni, 2017). Both web base criminals and employees use computer program knowledge to perpetrate frauds. Karwai (2002) stated that the causes of modern day fraud is challenging. Currently, in Nigeria, forensic accounting is grappling with regulatory issue. Nigeria National Assembly had passed the bill for an Act to establish Institute of Forensic and Investigative Professionals of Nigeria (CIFIPN) which has now been forwarded to the President of Nigeria, for an accent into law. If CIFIPN is passed into law, it will enable the practice of forensic and investigative audit and, also check fraud in Nigeria (Mayungbe, 2019). CIFIPN is an affiliate of Institute of Certified Forensic Accountants which has more than 90 member affiliate countries (Hashim & Rehman, 2018). In the words of Asari et al, (2015) the regulatory and legal settings in which auditors function appears to be the primary institutional factor that can influence fraud detection ability. This implies that supervisory bodies influence effective fraud control through standard provisions. Digboro and Olofinsola (2017) asserted that there is a significant hindrance to the adoption of forensic accounting as a tool for financial fraud control in Nigeria because the law seldom move with the new development in technology.

2.1.5 Sustaining Forensic Accounting Profession in Nigeria

Aderibigbe (2000) is of the opinion that forensic accountants should be well trained and have proof of his competence by passing all relevant professional examinations that qualifies him a member and should be outstanding in terms of integrity, honesty and probity, and maintain a professional attitude in the performance of his responsibilities. Aside the acquisition of forensic accountants' skills and characteristics, sustaining forensic accountants on financial fraud control in developing economies like Nigeria requires that forensic accounting professionals be trained and continuously be retrained in forensic matters and other emerging issues such as knowledge in digital forensic. As cited in Mohamed (2012), not many auditors

have the specialized electronic knowledge close to a skilled computer programmer (Wright, 2000; Johnson, 1979). Electronic fraud is highly perpetrated and companies do not push for the recovery when detected to avoid public embarrassment and loss of confidence from the public. On the other hand, they believe that computer technology permits new crime opportunities and that fraud on electronics is more anonymous and has less social control. Finau and Acklesh (2013) asserted that some organizations in the Pacific are investing more in IT security and developing IT security strategies. They stated further that forensic accountants have increased in Pacific as they play an important role in the prevention, detection and enforcement of cybercrime. As business organizations using IT are on the increase, forensic accountants are diversifying their skills sets into Information Technology (IT). Buttressing the latter, Myers (2016) stated that a successful and well-trained forensic accountant must have had good Cyber security skills to be effective in his assignments in businesses using IT.

It is relevant for a forensic accountant to acquire a relevant credential such as CFF, CFE etc. (Davis et al., 2010). Surveys showed that holding a credential for a forensic accounting professional who wants to go into public practice is highly necessary and acceptable. This certification is usually obtained from Forensic Accountants Certification Board (FACB) established in 2016 in England and Wales ([Wikipedia.org/wiki/Forensic_accounting](https://en.wikipedia.org/wiki/Forensic_accounting)) however, in Nigeria, National Assembly had passed the bill for an Act to establish Institute of Forensic and Investigative Professionals of Nigeria (CIFIPN) that will be granting certification to enable the practice of forensic and investigative audit (Mayungbe, 2019). It was suggested that two years of audit experience and length of experience working for a law enforcement agency including a forensic accounting certification will guaranty success in forensic accounting matters (Wells, 2003). Forensic accounting is seen as a form of professional expertise that has sterling specific attributes and being certified accords it symbolic value (Williams, 2002). The third aspect of improving and sustaining forensic accounting on fraud control is on educational issues which many different research studies have discussed. A number of education-related studies show there is stable progress in forensic accounting and the number of educational programs devoted to the field.

Prior research (Rezaee et al, 1996; Rezaee & Burton, 1997; Peterson & Reider, 1999, Rezaee, 2002; Crumbley, 2003 & 2009) on the review of literature on forensic accounting practices, certifications, education, provided evidence indicating that forensic accounting education

which has evolved from being continuing professional education sessions for practicing forensic accountants, to a current state of being offered as a credit course by several universities. Educational programs for forensic accounting provide a good level of training required for individuals who want to be in a forensic accounting team. Hashim and Rehman (2018) corroborated the preceding assertion stating that candidates also benefit from certification. However, one pathway to have insight into one's character is to have an award of degree in character and learning that are both graded. That way, institutions of learning will draw up a curriculum involving a psychosocial process that can train and assess one's character. This path could help sustain the reliability of characteristics of forensic accountants in controlling financial fraud, all things being equal. This might savage probable future failure of independence of forensic accountants as has become never ending saga in audit assurance and attestation service amongst corporate entities that has remain questionable. The deepest foundation of independence is being ethical (Accountancy Age, 2024). The grading could be done in the array of excellence, good and poor and domicile in a testimonial that should be issued together with the award of degree to students at academic and professional levels at graduation. Students are trained through academics process, and procedures such as undergoing tests, examinations, industrial training, research training etc. within the enforcement of academic rules and regulations. According to Erhiagbe (2024) the Deans and HoDs must mobilise staff under them to safeguard the sanctity and integrity of the examination by ensuring that there is enforcement of examinations ethics. In other words, it implies that if the examination ethics, rules and regulations are not enforced, some students would cheat. This supervision is done in the knowledge that if they are left un-invigilated during the tests and examinations that probably more than half of the students will indulge in examination malpractice. Worse is that even when some students who engage in examination malpractice are caught and rusticated for a period of two academic sessions as provided by some schools regulations when they come back to continue their studies and graduate, institutions will also award to them degree in character and leaning without a remark even when the stealing trait might remain in them. On the other hand, perpetrated malfeasance is sometimes concealed by corrupt examiners who caught them. On this foregoing, attention should be given to this aspect of academics by designing an academic curriculum that trains, examines and assesses students in character. This way, the growing level of character trust of career forensic accountants would most likely be sustained.

Survey conducted revealed that 72% of consumers review adjudge positive testimonials make them trust a business more and 88% of consumers trust online review added personal recommendations. It stated further that it is high amount of credibility you can leverage with some well executed testimonial from genuine customers (Grant, 2024). Testimonial provides potential students with great insight into their experiences, programmes and possible career option after grading (Grant, 2024). Boyle (2021) on a study of why students' testimonials are important for higher education stated that one way students could get reassurance is hearing about the experience of others through testimonials. He stated further that testimonial helps to make crucial decision for future career. From the foregoing, it implies that testimonials could help employer have insight into a probable character of the prospecting employees. A testimonial is an endorsement by someone who has had first-hand experience with a product or service and is willing to share their thought publicly. Also that testimonial is a promotional tool because they do not only show evidence of support, but also is characterised by reliable terms (Farland and White, 2024). In other words, testimonial can be described as an endorsement or certification by someone who has unmixed knowledge about the content of a person, product, service etc and is willing to disclose it.

2.1.6 Characteristic and Skills of Forensic Accountants for Effective Financial Fraud Control

The rate at which certified public accountants and other professionals are drifting to providing forensic accounting services suggest the need for providing insight and training on the requisite characteristics, core and enhanced skills needed to qualify individuals as forensic accountants (Davis et al, 2010). Forensic accounting skills are gradually being relied upon within a corporate reporting system which speaks well of its accountability and responsibility to stakeholders (Bhasin, 2013). Bruce as cited in Davis, et al. (2010) emphasized that many accountants are taking up forensic accounting services because of its high demand even when they don't know the dos and dons of the niche. Being an effective non forensic auditor does not necessarily translate into being an effective forensic accountant because an effective forensic accountant requires the professional to possess a broad spectrum of skills and knowledge (Davis, et al., 2010). For accountants, these core skills include education, training and experience of traditional accounting matters with the knowledge of rule of ethics, recommended standards, laws such as generally accepted accounting principles (GAAP) and business law, its application, attestation services etc. For forensic accountants, there may be a different set of core skills, knowledge and mentality that complement that of traditional accountants' skills that are required to make forensic accountants effective in fraud detection

and control assignments. : Charles, Ramona, and Suzanne (2013) as cited in Hashim and Rehman (2018), in their view of essential skills enumerated some such as remain detail-oriented, interviewing skills analytical skills, communication skills, problem-solving skills, persistence as necessary skills to succeed as a forensic accountant. Red Venture Company (2024) described some of the five characteristics and skills of forensic accountant as attention to detail, patience, integrity, problem-solving skills, tech savvy.

These skills and traits/characteristics are found in human and impact on the documents which lead to evidence discovery. Carlos et al, (2017) averred that skill is the ability to perform some activity, and the way to undertake an action more quickly, easily and efficiently. This infers that skills are the ability to perform task effectively and efficiently to produce credible result. They asserted that it is a capacity developed through physical, motor and psychosocial training, techniques, methods, rules and exercises. On the other hand, forensic accountants' characteristics are feature, quality or attribute that belongs to forensic accountants that enable them leverage on competence that improves task performance. According to Peleias (2006), forensic accountants' characteristics are human nature that influences skills which varies from person to person, depending on the innate personal characteristics. The enhanced skills are a very specific set of general skill items that are garnered from education and training quality of forensic accountants in their specific area of engagement. In other words, enhanced skills are 'extra' in the products of ordinary and extraordinary.

Bhasin (2013) asserted that many researchers have rated technical skills as implicit in the skills base of persons offering accounting career, but that is relative of wider personal characteristics that enhance career success and make accountants more effective and efficient on the job. Similarly, Harris and Brown (2000 as cited in Bhasin, 2013) noted technical abilities, investigative skills, theories, methods, patterns of fraud abuse and specialized skills for forensic accountants and that they have to familiarize with criminal and civil law with grasp of the courtroom procedures and expectations. Bhasin (2013) added that forensic accountants think creatively to know the tactics that fraud perpetrators may use to commit frauds and stated that knowledge of psychology assists forensic accountants to grasp the signals in criminal behaviour that make people commit financial fraud. Akers and Porter (2003) added that the American Institute of certified public accountants (AICPA) and the Institute of Management Accountants identified emotional intelligence skill as instrument to the success of the accounting career. Specifically, to effectively deal with fraud, Ramaswamy

(2007) stated that forensic accountants should have the following skills: (i) auditing skill; accounting and finance skill for solid background to analyze financial statements; and markets an organization operates in; (ii) taxation and business law for thorough understanding of legal elements of fraud; (iii) corporate laws and governance for in depth coverage of specific regulations affecting companies and their behaviour; (iv) Information systems which covers computer essentials and the flow of funds and information through electronic media; (v) skills of business valuations for complex methods of hidden assets and correct value of a business; (vi) criminology for criminal laws and procedures; (vii) Psychology for understanding human behaviors that leads to fraud; (viii) business ethics for general and specific conducts expected of professionals in position of trusts; and lastly (ix) communication skills relevant for report writing and oral communication crucial for conducting interviews and expert testimony in the court of law or arbitration process.

2.2 Characteristics and Skills of Forensic Accountants: Prior Studies' Perspectives

It was observed from the literature that different concepts were used to describe the skills or competences of forensic accountants, but however, the intent remains same to the researchers. Dominic et al. (2024) in their empirical study on characteristics and skills of forensic accountant for effective financial fraud control in Nigeria pointed out that the forensic accountant competence is drawn from personal characteristics, core skills and enhance skills. Popoola et al. (2015), and McMullen and Sanchez (2010) used a conceptual framework of knowledge requirement and skills requiremet (KR and SR) to describe forensic accountants' characteristics and skills. Similarly Popoola et al. (2017) investigated the required skills of forensic accountants in preventing fraudulent practices in the Nigerian public sector using a conceptual framework of Skills and ethics (SR and ER) of forensic accountants for fraud prevention which they described generally as capability requirements. Okoye and Yugu (2010) described the skills as special skills. Degabriele (2008) described it the nine skills competence of forensic accountants, which he classified into two and conceptualized them as knowledge and ability. Skills and ability were used to imply different things when it was asserted that the skills set required in one area can leverage skills and abilities while working on a different assignment (WVU, 2007 as cited in Calos et al., 2017).

Skills and competence also imply different thing when he averred that skills similar to competences, is influenced by human nature and varies from person to person, depending on the innate personal characteristics (Calos, 2017). Bhasin (2013) called it sixth sense and

specialized skills when he found that core skills are not enough requirements for forensic accountants' competence, and there exists significant differences in the relevant skills of forensic accountants as revealed by previous researchers in comparative with research study. Houck (2006) argued that area of forensic accountants consist of a rather unique skill set that ordinarily requires additional expertise and training beyond an academic degree. Characteristics or traits are attribute that are inborn (inheritance) which are influenced by environment and developed through learning. Skills are capacity building acquired through training. Davis et al. (2010) split these skills into core and enhance skills. The core skills are the general skills set level while the enhance skills are the specialized specific skills set. In other words, core skill enable forensic accountants leverage in different areas of assignments while enhance skills are specialized specific skills that make forensic accountants proficient in a specific area of assignment/engagement. Salleh and Ad Aziz (2014) extended it to include Islamic ethics.

Foregoing the above wide use of concepts, it is timely that generally acceptable concepts be introduced and used to describe forensic accountants' competence in order to promote uniformity of concepts. To this end, Punicks (2012) stated that following the discussion between technical experts from all countries involved in the development of EQF that it was agreed that distinction between knowledge, skill, and competence can be used as a basis for categorizing learning outcome. Chroskmy (2017) argued that competence is an ideal located as a psychological or mental property while performance is direct effect of competence only if the transfer process has no interference or constraints. Hayes (1979) described competence as a set of demonstrable characteristics and skills that enable and improve the performance/result. Therefore if knowledge, skill and competence are developed through EQF then another variable which is not acquired through formal learning process such as personal traits or characteristics should be added to the basis of distinction.

Theodore (1965, p 55) as cited in Lahaye (1984) in the Harvard Business review, published by the graduate school of business administration of Harvard University, in his study, pointed out that people have different ways of gathering and evaluating information. He stated that some people are systematic thinkers, some other receptive thinkers, other intuitive thinkers and some others perceptive thinkers. He also found that this style appears inherent and are fixed at maturity stage of life, and affect people greatly on the job performance. In summary, for the purpose of this study and clarity, the skills and characteristics/ traits as have been

adduced by research authorities have summarily been well captured, compiled and categorized into the characteristics or trait, core skills and enhance skills as seen in Dominic et al. (2024), Davis et al. (2010), and Salleh and Ad Aziz' (2014) studies which are adapted in this study. Application skill, that is, the ability of the forensic accountants to apply various relevant theories such as Benford law, Data Mining into forensic work process is introduced in this study

2.3 Summary of the Investigated Characteristics, Core and Enhance Skills of Forensic Accountants

Adapting Dominic et al. (2024), Davis et al., (2010) and Salleh and Ad Aziz (2014) the table below shows summary of the determinants of characteristics/traits, core skills and enhance skills of forensic accountants.

Table 1 Characteristics and Traits of Forensic Accountants

Determinants	Researcher's Sources	Definition of Concepts
Analytical Proficiency	Degabriele, 2008; Davis et al., 2010; McMullen & Sanches, 2010; Okoye & Jugu, 2011; Bobitan & Dumbitresiu, 2017; & Astute & Utemi, 2013	Attribute to identify, extract and examine what should be from the available
Detail Oriented	Zysman, 2008; Davies et al., 2010; & Kalsom & Rosainun, 2014	Attribute to be comprehensive enough in all perspectives
Ethical	Ramaswamy, 2007; Davis et al., 2010; Kalsom & Rozainun, 2014; Finansijsko & Funkciji, 2014; & Joseph, 2016	Attribute of knowing right and wrong but doing only the right
Responsive	Davis et al., 2010	Attribute to provide answers to issues
Insightful	Davis et al., 2010	Attribute of having the requirements or what the solution is
Inquisitive	Zysman, 2008; Joseph, 2016; & Davis et al., 2010	Attribute of being eager to know more, unsatisfying and able to draw inference from the information
Intuitive	Messmer, 2004; Degabriele, 2008; Davis et al., 2010; & Joseph, 2016	Attribute of having a mental picture of the requirements for judgment about yes or no

Persistent	Zysman, 2008; Davis et al., 2010;& Joseph, 2016	Attribute of continuing and finishing up despite limitations (being resilient)
Skeptical	Bhasin, 2013;& Joseph, 2016	Attribute of being doubtful and unsatisfying and questioning.
Evaluative/professional judgement	Zysman, 2008; Davis et al., 2010;& Kalsom & Rozainun, 2014	Attribute of giving judgment or drawing conclusion on fact base
Function well under pressure (composure)	Degabriele, 2008	Attribute of achieving results despite set backs
Generate new ideas, scenarios	Zysman, 2008, Davis et al., 2010	Attribute of being creative
Confident	Zysman, 2008; & Davis et al., 2010	Attribute of being hopeful and optimistic in pressure time
Make people be at ease (emotionally intelligent)	Zysman, 2008;& Davis et al., 2010; Aker & Porter, 2003	Attribute of approaching issues with diplomacy in other not to offend people
Team player	Davies et al., 2010	Attribute of being cooperative, accept others ideas and function well in a group
Adaptive	Davies et al., 2010	The attribute to be flexible and adjust to situation
Objectivity	Carlos & Filho, 2017	Attribute of not being influenced by opinion in considering and representing fact.
Updating	Carlos & Filho, 2017	Attribute of continually making self-suitable for assignment by adding more knowledge and skills
Proactivity	Carlos & Filho, 2017	Attribute of preempting or controlling a situation rather than responding to it
19		

Table 2 Core Skills of Forensic Accountants

Determinants	Researcher' Source	Definition of Concepts
Good oral communicator	Digabriele, 2008; Davis et al., 2010; Bhasin, 2013;& Astutie & Utami, 2013;	ability to interact and present expert opinion or report
Simplify the information	Davies et al., 2010;& Finansijsko & Funkciji, 2014;	Ability to break down the complex financial information for swift understanding of users
Strategic thinker	Digabriele, 2008; Davis et al., 2010; Bhasin, 2013; Astutie and Utami, 2013; & Joseph, 2016	Ability to identify the difference between opinion and fact and concentrate on the fact.
Identify key issues	Degabriele, 2008	Ability to recognize the core issues
Auditing skill	Ramswamy, 2007; Blessing, 2015; & Joseph, 2016	Ability to examine financial record, ensure compliance and uncover errors
Investigative ability	Okoye & Jugu, 2011;& Bhasin, 2013	Possessing an investigative manpower being systemic and methodical in fact –finding
Good written communicator	Ramswamy, 2007; Digabriele, 2008; McMullen & Sanches, 2010 Davis et al., 2010; Bhasin, 2013;& Astutie & Utami, 2013;	ability to effectively prepare and write forensic accountants reports
Investigative intuitiveness	Davies et al., 2010	Ability to discern, perceive and have mental picture of the assignment requirement
Synthesize result of discovery & analysis	Davis et al., 2010;& Astute Utemi, 2013	Ability to draw an inference using different approaches and bases
Think like the wrongdoer	Davis et al., 2010	Ability to reason like the offender

Understand the goal of a case	Davis et al.,2010	Ability to fathom what is required of the assignment
Tell the Story	Davis et al., 2010	Ability to relate the story in one's perspective
See the big picture	Zysman, 2008;& Davis et al.,2010	Ability to see the details
Organize unstructured situation	Davis et al., 2010	Ability to arrange unstructured situation in such that can be resolved using a designed approach
Solve unstructured problem	Digabriele, 2008, Davis et al., 2010; Okoye & Jugu, 201; Bhasin, 2013;& Kalsom & Rozainun, 2014	Ability to solve a unique problem using a unique approach or design
Research skill	Davis et al., 2010	Ability to discover new idea and method to solve problems
Solve structured problems	Davis et al.,2010	Ability to solve a straight forward problem using a routine approach or design
Deductive analysis	Digabriele, 2008;& Astutie & Utami, 2013	Ability to aim at financial contradiction that do not follow standard pattern of an assignment.
18		

Table 3 Enhance Skills of Forensic accountants

Determinants	Researcher's Source	Definition of Concepts
Analysis & interpret f. statement & information	Ramaswamy, 2005; & Davis et al., 2010	Focusing on financial contradictions that do not fit into the normal pattern of a task
Testifying	Davis et al, 2010	Capability of communicating reports to end users in Court
Knowledge of relevant professional standards	Bhasin, 2013;& Davis et al., 2010	Capability of knowing the required auditing, financial and accounting rules
Audit evidence	Grippio & Ibex, 2003;& Davis et al., 2010	Capability of generating admissible evidence
Fraud detection	Davis et al., 2010	Capability of digging out the fraud or identifying the gap
Electronic discovery	Ramaswamy, 2005;& Davis et al., 2010	Capability of using computer programme to generate evidence in electronic environment
Knowledge of rule of evidence & civil procedure	Digabriele, 2008; Davis et al. 2010; Astutie and Utami, 2013, 2019;& Bhasin, 2013;	Capability of having power of the rule of civil and criminal admissible evidence
Interviewing skill	Davis et al., 2010;& McMullen & Sanches, 2010	Capability of eliciting oral evidence from individuals
Specialized technical skill	Digabriele, 2008;& Ahadiat, 2010	Capability needed to perform specific task
Internal control	Grippio & Ibex, 2003; Ramaswamy, 2005;& Davis et al., 2010	Capability to understand how the operational system flow, identify the weakness and strengthen it
Conflict negotiation & resolution skill	Davis et al., 2010	Capability to resolve disputes between and amongst conflicting parties
Knowledge of law enforcement	Digabriele, 2008; Bhasin, 2013; Davis et al. 2010; McMullen & Sanches, 2010;&	Capability of having understanding of the law enforcement

	Astutie and Utami, 2013	
Asset screening	Davis et al, 2010;& Salleh & Ad Aziz, 2014	Capability to identify concealed assets such as goods.
Application Skill***	Researcher's source	Capability of turning the skills into performance
14		

Author Compilation, (2024)

3. Conclusion

In conclusion it can be revealed that forensic accounting is multifaceted and its skills are drawn from multidiscipline in carrying out its functions which harps on admissible evidence to prove claims. It is a branch of forensic science and has several procedures and process in carrying out its functions. Research studies have agreed that forensic accounting is a viable tool to control any kinds of frauds but in Nigeria it has not yielded positive impact which has been attributed to some factors—dearth of forensic accountants, regulatory issues such as non-legal backing for forensic accounting practice, and high cost of hiring existing foreign forensic accountants. From the literature, it appears forensic accountants in Nigeria have the following challenges which include organizational issues, digital forensic issues and legal issues. Fraud is a menace which developed economies and developing economies are grappling with and manifest in different red flags. Financial fraud is controlled through the application of forensic skills in forensic accounting procedures and process and selecting and utilizing appropriate forensic tools. It was revealed that for forensic accountants to continually maintain today temple of relevance in future, digital forensic is emerging area that forensic accountants cannot do without, and that forensic accountants should be retrained continually by its institute and arguably add that forensic accountants must glue ethics. Meanwhile many have argued on the education type for forensic accountants in that more studies appear to agree that forensic accounting should be offered as independent course in the classroom education setting at undergraduate and post graduate levels. From the literature, forensic accountants' skills are adduced to be well designed and appropriate for effective financial fraud control. It also found that there are quality identified characteristics, core skills and enhance skills of forensic accountants that would make forensic accountants competent and independent on the work process, procedure, information disclosure and reporting. Achieving independence is

heroic; thus it is not about money; it is about culture. Independence is driven critically by professional traits of objectivity and skepticism. However, forensic accountants would not be proficient on their task performance where these core skills enhance skills and traits/characteristics do not reflect in them.

The characteristics, core skills and enhance skills of competent forensic accountants which are garnered through knowledge acquisition, training and experience have been identified in this study. It is therefore suggested that professional institutions as well as academic institutions should design curriculum that will train, assess and grade prospective forensic accountants in character and learning in order to sustain amongst other measures, forensic accounting career.

REFERENCES

- Abimbola, O. (2024). FRCN revoke A. A. licence, *Punch Lite*, FRCN Lagos Building: icirnigeria.org
- Accountancy Age (2024). Madness of auditors independence, CFO Executive Dialogue: www.accountancyage.com>...
- Ayas, O. (2021). Unknown active discipline :Forensic accounting, *Academia letters*, Article 1228
- Abdullahi, R. Mansor, N., & Nuhu, M. S. (2015). Fraud triangle theory and fraud diamond theory: Understanding the convergent and divergent for future research. *European Journal of Business and Management*, 1.7 (28) , 23-45.
- Abdullahi, R., & Mansor, N. (2015). Fraud triangle theory and fraud diamond theory. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 5 (4), 38–45
- Adebisi, J. A., Okike, B. M., & Yoko, V. E. (2016). The impact of forensic accounting in fraud detection and prevention: evidence from Nigerian public sector. *International journal of Business Marketing and Management*, 1(5), 34-41.
- Adenekan, S. (2019, July 12). Nigeria: Atiku Abubakar decries Nigeria's debt profile. *Premium Times*, Abuja. Retrieved from www.punch.ng.com
- Aderibigbe, P. (2000). The role of the forensic chartered accountant. *The Nigeria Accountant*, 15-20
- Agrawal, A., & Chadha, S. (2005). Corporate governance and accounting scandals. *Journal of Law and Economics*, 48: 371-406.

- Ahadiat, N. (2010). Skills necessary for a successful career in Accounting. *Journal of the Department of Accounting*, California State, USA. Akers,
- AICPA. (2002). Consideration of Fraud in a Financial Statement Audit. Statements on Auditing Standards, SAS No. 99, AU Section 316
- Ajayi, B. (2016). Cadbury: Nigeria's enron, *Announce this article to your friends*. Retrieved from nigeriaweb/odili.net/naijanet.com/commentary
- Ajie, H.A., & Ezi, C. T. (2000). *Financial institutions and markets*. Owerri: corporate impression.
- Akani, F. N., & Ogbeide, S. O. (2017). Forensic accounting and fraudulent practices in Nigerian public sector. *International Journal of Arts and Humanities*, 6 (2), 172-181.
- Akkeren, J., & Buckby, S. (2019). Perceptions on the causes of individual and fraudulent co-offending: Views of forensic accountants. *Journal of Business Ethics*, 146(2), 383–404.
- Amake, C.C., & Ikhatua, O. J. (2016). Forensic accounting and fraud detection in Nigeria public sector. *Igbinedion University Journal of Accounting*, 1, 148.
- Arokiasamy, L., & Cristal-Lee. S. (2009). Forensic accounting: Public acceptance towards occurrence of fraud detection. *International Journal of Business and Management*. 145-160
- Asari, S. K., Arnie, W., & Zimbelman, M. F. (2015). Challenges facing auditors in detecting financial statement fraud: insight from fraud investigations. *Journal of Forensic & Investigative Accounting*, 7(2), 63-111
- Association of Certified Fraud Examiner, 1 ACFE (2012). Report to the nations on occupational fraud and abuse. Austin, TX: Association of Certified Fraud Examiners.
- Association of Certified Fraud Examiner, ACFE (2014). Report to the nations on occupational fraud and abuse. Austin, TX: Association of Certified Fraud Examiners.
- Astute, Y. P., & Utema, Y. (2013). Characteristics and relevant skills of forensic accountant: an empirical study on Indonesia. In International Conference on Accounting and Finance. Retrieved from dl4.globalstf.org.
- Boyle, E. (2021). Why students' testimonials are important for higher education and how to gather them, School Webmaters: <https://www.noeticmarketer.com>
- Bloomberg. (2024). Chines finance ministry fine PWC, *Financial Times*, <https://www.rte>.
- Bassey, E. B. (2018). Effect of forensic accounting on the management of fraud in microfinance institution in Cross Rivers State. *Journal of Economics and Finance*, 9(4), 1, 79-89.
- Bhasin, M. (2007). Forensic accounting: a new paradigm for niche consulting. *The Chartered Accountant*, Country, 1000-1010.

- Bhasin, M. (2013). An empirical investigation of the relevant skills of forensic accountants: experience of a developing economy. *European Journal of Accounting Auditing and Finance Research*, 1, 2, 11-52.
- Bierstaker, J. L., Brody, R. G., & Pacini, C. (2006). Accountants' perceptions regarding fraud detection and prevention methods. *Managerial Auditing Journal*, 21(5), 520-535.
- Blessing, I. N. (2015). Empirical analysis on the use of forensic accounting techniques in curbing creative accounting. *International Journal of Economics, Commerce and Management United Kingdom*, 3 (1),1, ISSN 2348 0386
- Bobtan, N., & Dumbittrescu, D. (2017). The relevant skills for forensic accountant- can the Romanian accounting education programme offer them? Ovidius University Annals, Economic Sciences Series, 17(1). Retrieved from Diana.dumitrescu@e-uvt.ronicolae.bobitan@e.uvt.ro.
- Boleigha, P. (2011). Meaning of forensic accounting. A Paper Presented at the ICAN Forensic Accounting Certification Programme, March 22, Abuja
- Boritz, J. E., Kotchetova, N., & Robinson, L. A. (2008). Planning fraud detection procedures: Forensic accountants vs. auditors. *IFA conference*. Retrieved from <http://aaahq.org/meetings/AUD2009/PlanningFraudDetectionProcedures.pdf>
- Bozkurt, E. (2003). *Fraud detection and forensic accounting*. Retrieved from <http://www.springer.com/cda/content/document/9783642c1.pdf%3FSGWID%3D0-0-45-1326442p174119761&sa=U&ei=oBCGML6PMGkgagK&ved=0CBcLmQ>.
- Carlos, A. F., Costa, C. R., & Filho M. F. (2017). Relevant skills for criminal accounting expertise: the perception of Federal Police experts and delegates. *Journal of Education and Research in Accounting*, 11(1) 4, 69-88
- Carmichael, D. R. (2004). The PCAOB and the social responsibility of independent auditor, *Mid-Year Auditing Section Meeting of the American Accounting Association*, Florida, USA
- Cressey, D. (1953). *Other people's money: A study in the social psychology of embezzlement*, free press. Glencoe, IL
- Crumbley, D. L. (2003). What is forensic accounting? Forensic accounting: Older than you think. *Journal of Forensic Accounting*, 11(2), 181-202. Retrieved from www.edwardpub.com
- Crumbley, D. L. (2009). *Journal of Forensic Accounting*. Retrieved from www.rtedwards.com/journals/JFA/evidentiary.html, January 9.
- Crumbley, D. L., Heitger, L. E., & Smith, G.S. (2005). *Forensic and Investigative Accounting*.

- Dominic, E. S.; Omoye, A. S. & Odubuasi, A. C. (2024). Characteristics and skills of forensic accountants for effective financial fraud control in Nigeria, *European Journal*: <https://ejournals.org>sites>
- Dada, S. O., Owolabi, S. A., & Okwu, A. T. (2013). Forensic accounting a panacea to alleviation of fraudulent practices in Nigeria. *International Journal Business, Management and Economic Research*, 4(5), 787-792.
- Dada, S. O., Enyi, P. E., & Owolabi, S. A. (2013). Forensic accounting: a relevant tool for effective investigation of bribery cases in Nigeria. *Unique Journal of Business management Research*, 1(5), 095-099.
- David, A. (2005). Low level fraud is a high level issue, supply management. Retrieved from <http://www.highbeam.com/doc/1P3-821992191.html>.
- Davis, C., Farrell, R., & Ogilby, S. (2010). *Characteristics and skills of the forensic accountant*. AICPA Publications. Retrieved from <file:///F:/Download/ForensicAccountingResearchWhitePaper.pdf>; <https://www.aicpa.org/.../...>
- DeGabriele, J. (2008). An empirical investigation of the relevant Skills of forensic accountants. *Journal of Education for Business*, 331-338.
- Degboro, D., & Olofinsola, J. (2007). Forensic accountants and the litigation support engagement. *Nigerian Accountant*, 40 (2), 49-52.
- Dorothy, A., McMullen, M., & Sanchez, H. (2010). A preliminary investigation of the necessary skills, education requirements, and training requirements for forensic accountants. *Journal of Forensic and Investigative Accounting* 2 (2)
- Erhiagbe, O. E. (2024). Conduct of examinations: The role of deans and heads of department in enforcing examination and ethics. A one-day Workshop Discuss, University of Delta, Agbor.
- Enofe, A. O. Omagbon, P., & Ehigiator, F. I. (2015). Forensic audit and corporate fraud. *Journal of Economics and Business Management*, 1 (8), 2489-0065. Retrieved from www.iiardpub.org
- Enofe, A. O., Agbakpolor, C. A., & Oyarebu-Ibrahim, P. Y. (2016). Forensic accounting and corporate fraud in Nigeria. *Journal of Accounting and Financial Management*, 2 (1), 2504-8856
- Enofe, A. O., Okpako, P. O., & Atube, E. N. (2013). The impact of forensic accounting on fraud detection. *European Journal of Business and Management*, 5(26), 61-72

- Enofe, A., Dominic, E., & Kifordu, T. (2017). A qualitative forensic accounting and effective judiciary system in Nigeria. *International Journal of Transformations in Business Management*, 4(7), Oct.-Dec. Retrieved from <http://www.ijtbm.com>
- Farland, B. & White, D. (2024). Importance of testimonials to make crucial decision for the future careers, Testimonial/definition, Goal& Examples: <https://study.com>lesson>what-i...>
- Finansijsko, I. u., & Funkciji, K. U. (2014). *Forensic accountant: innate trait or acquired skill?*, 131-134, DOI: 10.15308
- Finau, J. S., & Acklesh, P. (2013). Cybercrime and its implications to the pacific glen: the Accountant. *The Journal of the Fiji Institute of Accountants*
- Grant, S. (2024). Why testimonials are so important for branding, WYZOWL: <https://WYZOWL.com>why-test...>
- Hayes (1979). Competence is set of demonstrable characteristics and skills that enable and improve the performance/result. Competence Human Resources-Wikipedia. Retrieved from <http://en.m.wikipedia.org/wiki>
- Ichalkaranji, (2014). *Forensic audit, fraud investigation and cyber crimes*. CPE Study Circle of WIRC of ICAI
- Imoniana, J. O., Antunes, M. T. P., & Formigoni, H. (2013). The forensic accounting and corporate fraud. *Technology Management*, 10 (1), 1807-1775. doi.org/10.1590/S1807-17752013000100008
- Jacob, F. O. (2021). The effect of forensic accounting on financial fraud management in Nigeria's public sector. *International Journal of Innovative Research and Advanced Studies*, 8(7), 27–34.
- Johnson, A. G. (1979). Fraud detection and auditor's role. *Journal of Accountancy*, 67-68.
- Joseph, J. (2016). The traits and characteristics of elite forensic accountants. *Accounting Web*. Retrieved from [www.accountingweb.com/...](http://www.accountingweb.com/)
- Joshi, M.S. (2003). *Definition of Forensic Accounting*. Retrieved www.forensicaccounting.com/3rd Sept, 2013).
- Kahan, S. (2006). Sherlock Holmes enters accounting: Dramatic increase in fraud brings more CPA sleuths into the industry. *Accounting Today*, 20(8), 1, p. 32-33.
- Karim, A. M., Rashid, M. M., & Islam, M. A. (2017). Forensic accounting importance and concepts: evaluating its scope of application in Bangladesh. *ELK Asia Pacific Journal of Financial and Risk Management*, 8 (1), 1-5

- Masango, C. (1998). Criminal Law Manual. Zimbabwe Republic Police Printer, Harare.
- Nigerian Deposit Insurance Corporation Report from 2001-2012. 15. Nigerian Criminal Code of 1990 16.
- Mayungbe, R. (2019, may 31). The establishment of chartered institute of forensic and investigative professionals in Nigeria- Association of professional- Association of professional bodies in Nigeria behaving like association of better Nigeria. The Guardian. Retrieved from www.vanguard.com.ng
- Messmer, M. (2004). Exploring options in forensic accounting. *National Public Accountant*, (5), 9–20.
- Modugu, K. P., & Anyanduba, J. O. (2013). Forensic accounting and financial fraud in Nigeria: an empirical approach. *International Journal of Business and Social Science*, 4(7), 281-289.
- Mohamed, M. S. (2012). Overview of research on auditor responsibility to detect fraud on financial statement.
- Mukoro, D. C., Yamusa, O., & Faboyede, S. O. (2013). The role of forensic accounting in fraud detection and national security. An Integrated Approach. H-Link Excel, Lagos.
- Murphy, L. M. (2014). Top soft skill for forensic accountant. AICPA store. Retrieved from <https://www.aicpastore.com>
- Myers, K. (2016). *Forensic accounting the whats, whys, and hows of forensic accounting*. USF- MUMA College of Business University of Southern Florida
- Ogundana, O., Okere, W., Ogunlaye, O., & Oladapo, I. (2018). Forensic accounting and fraud prevention and detection in Nigerian banking industry. *C O J Review & Research*, doi: 1031031. Retrieved from <http://crimsonpublishers.com>
- Okafor, M. C., & Agbiogwu, A. A. (2016). Effect of forensic accounting skills on the management of bank fraud in Nigeria. *European Journal of Accounting, Auditing and Finance Research*, 4(6), 70- 80.
- Okoye, E. I., & Gbegi, D. O. (2013). An evaluation of the effect of fraud and related financial crimes on the Nigeria economy. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 2(7), 81-91.
- Okoye, E. I., & yugu, Y. G. (2010). An empirical investigation of the relevant skills of forensic accountants in Nigeria, *Journal of Knowledge Management*, 1, 2.
- 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

- Oladejo, M. O., & Oluwaseun, Y. (2015). Impact of Forensic Accounting on fraud reduction in the Nigerian banking sector. *International Journal of Empirical Finance*, 4(4), 250-257
- Oseni, A. I. (2017). Forensic accounting and financial fraud in Nigeria: problems of and prospects. *Journal of Accounting and Financial Management*, 3 (1), 23-33
- Oyejide, A. (2008). Corruption and development: a Nigerian perspective. *Nigerian Accountant*, 41(4), 28-42.
- Oyinlola, A. O. (2010). The role of auditors in fraud detection, prevention and reporting in Nigeria. *Library Philosophy and Practice*. 517. Retrieved from <http://digitalcommons.unl.edu/libphilprac/517>.
- Ozkul, F. U., & Pamukc, A. (2012). Fraud detection and forensic accounting, Istanbul, Turkey.
- Peterson, B., & Reider, B. (2001). An examination of forensic accounting courses: Content and learning activities. *Journal of Forensic Accounting*, 2 (25).
- Popoola, M.O.J., Che-Ahmad, A., & Samsudin, R. S. (2015). Forensic accountant and auditor knowledge and skills requirements for task performance fraud risk assessment in the Nigerian public sector. *MPERE*. Retrieved from <https://mpira.ub.uni-muenchen.de/66655/> MPRA Paper No. 66655.
- Popoola, O. M. J., Che Ahmed, A. Abdullah, Z., Md Idris, K., & Abu Bakar, F. (2016). An empirical effect of fraud specific problem representation on accountant skills and fraud risk assessmesnt. *International Cnference on Accounting Studies, 15-16*, Kedah Malaysia
- Popoola, O. M. J., Che Ahmed, A., & Ademola, L. F. (2017). The forensic accountants' skills and ethics on fraud prevention in the Nigerian public sector. *Academic Journal of Economic Studies*, 3,4,77-85
- Popoola, O. M. J., Che-Ahmed A., & Samsudin, R. S.(2014). Impact of task performance fraud risk assessment on forensic skills and mindsets: experience from Nigeria. *International Journal of Business and Social Science*, 5 (9), 216-224.
- Preber, B. J. (2014). Financial expert communication: A practical guide to reporting and testimony. John Wiley& sons Inc Hoboken, New Jersey, Canada. ISBN 978-1-118-75355-2.
- Punkts, N. K. (2012). What means knowledge, skills and competence. Retrieved from nki-lativja.lv
- Raburu, G., Omollo, R., & Okumu, D. (2018). Applying data mining principles in the extraction of digital evidence. *International Journal of Computer Science and Mobile Computing*, 7 (3), 101-109.

- Ramaswamy, V. (2005). Corporate Governance and the Forensic Accountant. *The CPA Journal*, 75, 3, 68-70
- Razaee, Z., Crumbley, D. L., & Elmore, R. C. (2004). Forensic accounting education: A survey of academicians and practitioners. *Advances in Accounting Education Teaching and Curriculum Innovations*, 6, 2, 193-231
- Rehman, A., & Hashim, F., (2019) . Impact of mature corporate governance on detective role of forensic accounting: case of public listed companies in Oman” in FGIC 2nd Conference on Governance and Integrity 2019, *KnE Social Sciences*, 637–665.
- Hashim, F. & Rehman, A. (2018). Literature review: preventive role of forensic accounting and corporate governance maturity, ResearchGate: <https://www.researchgate.net/publication/325813347>
- Nwoye, U.J. & Ogbodo, Cy.O. (2021). Effective Deploy of Digital Forensic Techniques and the Sustainance of Material Misstatement-Free Financial Reporting in Nigeria, *Journal of Academic Research in Economics*, 13(3), 442 – 470.
- Ochuka, E., Nwoye, U.J. & Okoye, E.I. (2022). Forensic Accounting Practice as Effective Repel to Economic Inefficiency and Resource Mismanagement in Nigeria, *Himalayan Journal of Economics and Business Management*, 3(1), 146 – 159.
- Red Venture Company (2024). Five characteristics of forensic accountant, Graduate School Resource Guide: <https://www.bestmastersdegrees.com/lists/5-comm...>
- Rezaee, Z. (2002). Forensic accounting practices, education, and certifications. *Journal of Forensic Accounting*, 3 (2), 207-223.
- Rezaee, Z., & Burton, E. J. (1997). Forensic accounting education: Insights from academicians and certified fraud examiner practitioners. *Managerial Auditing Journal*, 12 (9), 479-489.
- Rezaee, Z., Reinstein, A., & Lander, G. H. (1996). Integrating forensic accounting into the accounting curriculum. *Accounting Education*, 1 (2), 147-162.
- Salleh, K., & Ad Aziz, R. (2014). Traits, skills and ethical values of public sector forensic accountants: An empirical investigation. *Accounting Research Institute, Procedia - Social and Behavioral Sciences*, 145, 361 – 370
- Smith, G., & Crumbley, D. (2009). How divergent are pedagogical views toward the fraud/forensic accounting curriculum? *Global Perspectives on Accounting Education*, (6)1 - 24.
- Smith, G., & Crumbley, D. (2014). Defining forensic audit. *Journal of Digital Forensic, Security and Law*, 4(1), 61-80. Retrieved from ojs.jdfsl.org

- Smith, R. (2011). How financial statement can impact your business. Retrieved from :www.sbnonline.com>article>how-fina...
- Srivastava, R. P., Mock, T. J., & Turner, J. L. (2003). *The effects of integrity, opportunity, incentives, mitigating factors and forensic audit procedures on fraud risk.* .
- Sugahara, S., & Coman, R. (2010). Perceived importance of CPA's general skills: a Japanese stud. *Asian Journal of Finance & Accounting*, 2, 1, 1-24
- Watoseninyi, A. B. (1996). Survey of audit investigation in Nigeria. The case of frauds. *The National Accountant*, 6(5) 24.
- Wikipedia (2017). Difference between forensic accountant and forensic auditor. Retrieved from <http://m.bayt.com>>specialties>what-is-...
- Wikipedia (2017). *Forensic accounting*. Retrieved from <https://en.m.wikipedia.org>>wiki>foren...
- Williams, J. W. (2002). Playing the corporate shell game: *The forensic accounting and investigation industry, law, and the management of organizational appearances. Doctoral Dissertation*, Toronto: York University
- Wolf, D. T., & Hermanson, D.R. (2004). The fraud diamond: considering the four elements of Fraud Diamond
- Wright, T. E. (2000). An introduction to the field guide for investing computer crime, (Part1-Part 8). Retrieved from: <http://online.securityfocus.com>
- Yahaya, A. (2018). The 9 oil producing states in Nigeria. Nigeria Infofinder. Retrieved from nigeriainfofinder.com.
- Yamane, T. (1967). *Statistics: An Introductory Analysis* (2nd ed.). New York Harper and Row.
- Zachariah, P., Masoyi, A. D., Iyang, E. E., & Ogere, G, A. (2014). Application of forensic auditing in reducing fraud cases in Nigeria money deposit banks. *Global Journal of Management and Business Research: D Accounting and Auditing*, 14(3),1.0, 2249-4588.
- Zimbleman, M. K., Albrecht, C. C., & Albrecht, C. O. (2012). *Forensic accounting. Cengage learning*.International edition Canada, 4th Edition
- Zysman, A. (2008). Forensic accounting demystified, world investigators network standard practice for investigative and forensic accounting engagement?: Canadian Institute of Chartered Accountants. *Journal of Forensic Accounting*. Retrieved from ifa.alliance@cica.ca