STUDY MANUAL

FORENSIC ACCOUNTING (PEB 5)

ASSOCIATION OF NATIONAL ACCOUNTANTS OF NIGERIA (ANAN)

PEB 5: FORENSIC ACCOUNTING
Aim:

This subject aims to prepare students to demonstrate the knowledge, skills, and competencies necessary to carry out the audit of an entity and undertake assurance engagements, having due regard to the ethical standards of the profession in a changing and complex business environment. Additionally, this subject aims to allow students to gain an understanding of the role of and challenges facing forensic accounting and fraud auditing.

Module	Topics	Weighting (%)
1.	Overview of Forensic Accounting	10
2.	Bank Statement Analysis	10
3.	Networth Analysis (International practice)	10
4.	Link Analysis	10
5.	Evidence and Evidence Gathering	15
6	Forensic Documentation and Reporting	15
7.	Fraud Management	10
	Practicum/Case Study/e-tools	20/100

Module One: Overview of Forensic Accounting

- Introduction to Forensic Accounting
- Types of Forensic Accounting
- Stages of forensic accounting operations
- Fraud Examination and Investigative Accounting

Module Two: Bank Statement Analysis

- Red flags areas in Bank statement (Fraud prone areas)

-Mounting Receivables, Heightened Inventory, Disposal of Fixed Assets,

-Complexities in the Statement, Non-Operating Income, High Number of "Other Expenses,

-Manipulating Expenses. Forensic presentation of Bank statements.

Module Three: Networth Analysis. (International practice)

-Bank Based model (BBM)

-Deposit model (DM)

-Asset Based model (ABM)

-Forensic presentations of the Asset based option.

Module Four: Link Analysis

-Single-tree Transaction approach

-Multiple Transactions Approach.

-Policeman Theory

- Case studies in Forensic Accounting.

Module Five: Evidence and Evidence Gathering

-Evidence and identifying the basic forms of evidence

-Burden of Proof in Civil Litigation and Criminal litigation

-Circumstantial evidence and direct evidence

-Factors of relevant evidence

-Exclusionary Rule to evidence, Authentication, Chain of Custody, Digital Evidence, Hearsay, Impeachment

-Attorney-Client Privilege, attorney-client privilege protection; Confidentiality,

- Professional Service, Integrity, Conflict of Interest, Due Diligence

Module Six: Forensic Documentation and Reporting

-Forensic Document and Documentation

-Sources of Questioned Documents ubjected to Forensic Document Examination

-Forensic Document Examination

- Forensic Reporting

-Types of Reports

- Forensic Accounting and Fraud Examination Report

-Forensic accounting expert witnessing

Module Seven: Fraud Management

-What is fraud?

-Types and contexts of Fraud

-Fraud motivators

-Theories of fraud/criminality

-Fraud risk

- Behavioural pattern of fraudsters

-Fraud prevention and detection

-Money Laundering, definition and phases, recovery/seizure

-Fraud and examination checklist

-Tracing of illicit funds and asset recovery/seizure

-ICPC and EFCC laws about Financial Crime

-Case Example

Core Texts

NCA Professional Study Manual and suggested readings.

MODULE ONE: OVERVIEW OF FORENSIC ACCOUNTING

1.1 Introduction to Forensic Accounting

Forensic accounting has risen to prominence because of increased financial frauds are popularly known as white-collar crime. Forensic accounting can be described as a specialized field of accounting that investigates fraud and analyze financial information to be used in legal proceedings. Forensic accounting uses accounting, auditing, and investigations skills to conduct investigations into theft and fraud. It encompasses both Litigation Support and Investigative Accounting. Forensic accounting, forensic accounting, or financial forensic is the specialty practice area of accounting that describes engagements that result from actual or anticipated disputes or litigation. "Forensic "means "suitable for use in a court of law", and it is to that standard and potential outcome that forensic accountants generally have to work. Forensic accounting, also referred to as forensic auditors or investigative auditors, often have to give expert evidence at the eventual trial (ICMAI 2014).

According to the Journal of Forensic Accounting, Forensic accounting is sufficiently thorough and complete so that an accountant, in his/her considered independent professional judgment, can deliver a finding as to accounts, inventories, or the presentation thereof that is of such quality that it would be sustainable in some adversarial legal proceeding, or within some judicial or administrative review. Forensic accounting falls within the context of our environmental needs. That is, to give forensic assistance in accounting issues. This is very vital and pollutes with a politician who has powers t corrupt well-meaning businessmen. This normally happens to detriment of well-planned public projects that are roughly implemented.

In terms of qualities of a forensic accountant, Fitzhugh (2010) mentioned that by the nature of the job, forensic accounting favors individuals who have prior experience in fields like law enforcement and auditing. Maturity and prior professional knowledge give forensic accountants a frame of reference to utilizing their professional judgment and frequently a "gut "instinct developed from years of experience.

Concepts of Forensic Accounting

It is difficult to conceptualize forensic accounting without comparing it with auditing, mainly because auditing has been used to assess business positions, accounting malpractices and even today auditors do perform investigative jobs. Auditors have been involved in carrying out fraud investigations, expert witnesses, due diligence, and so on. Probably as a new era, and professional advancement unfolding various strengths and, and opportunities and embracing various perspectives, there is none gainsaying that accounting is also in this same trend. The main aim of forensic accounting is not only to understand how a fraud was committed but to document it with the highest possible accuracy. Accounting to Gomide (2008). In the treatise, EFG cited that it falls under general information or certain topics, or subjects as it can be sorted.

Forensic accounting is intimately related to auditing particularly when forensic auditing is discussed, services provided by accountants include, amongst others: expert witnesses, being forensic services to give proof in accounting issues in litigations and auditing and to certify the veracity of accounting statements diligent. The forensic job is analytical in as much as in the end it tries to calculate the rate at which losses have been inflicted on the business. Generally, reporting in forensic accounting is programmed for a certain period. Yet, different from auditing, there are no regulatory organizations that control efforts to be put into forensic accounting.

Thornhill (1995) posits that forensic accounting discipline is relatively new and that up to date, there has been no formal definition that is being accepted as the standard. Webster's Dictionary defined forensic as about, connected with, or used in the courts of law or public discussion and debate Hence, forensic accounting is closely related to the legal process and has the potential to be involved in proceedings in the civil and criminal courts. Forensic accounting provides an accounting analysis to assist in legal matters which will form the basis for discussion, debate, and ultimately dispute resolution. Manning (2002) also defined forensic accounting as the application of financial accounting and investigative skills at a standard acceptable by the courts, to address issues in dispute in the context of civil and criminal litigation.

Bologna and Lindquist (1987) defined forensic accounting as the application of financial skills and investigative mentality to unresolved issues, conducted within the context of the rules of evidence. As a discipline, it encompasses financial expertise, fraud knowledge, and a sound knowledge and understanding of business reality and the working of the legal system. Its development has been primarily achieved through on-the-job training as well as experience with investigating officers and legal counsel. In the views of Razee, Crumbley, and Elmore (2009), Forensic accounting is simply a specialty field in accounting that deals with the identification of financial fraud, and reports in a way that would be suitable for use in a court of law. Howard and Sheetz (2006) define forensic accounting as simply the process of interpreting summarizing and presenting complex financial issues, succinctly, and factually often in a court of law as an expert witness. It is concerned with the use of accounting discipline to help determine issues of facts in business litigation. Forensic Accounting is the fastest growing and highest paying field of Accounting, and with the integration and complexity of the global markets and financial institutions, it would be in greater demand within the next few decades. The needs of the government's regulatory authorities and courts for a high level of expertise for the analysis of intricately devised frauds underlie the importance of forensic accounting (Ramaswamy, 2005).

Forensic accountings provide services in accounting, auditing investigation, damages claims, analysis valuation, and general consultation and have critical roles in divorce, insurance claims, personal damage claims, fraud claims, construction, auditing of publication right, and in detecting terrorism by using financial precedence (Hassan & Morteza, 2012).

Effector of Forensic Accounting

The earliest known evidence of forensic accounting has been traced to an advertisement in a newspaper in Glasgow, Scotland, appearing in 1824, at that time, arbiters, courts, and counsels, used forensic accountants to investigate fraudulent activities. However, it was not until the early 1900s in the United States and England, when articles providing guidance activities expert testimony appeared (Crumbley, 2003). As the forensic accounting profession has grown over time, several publications have been produced to provide guidance. In 1946, Maurice Peloubet, an accountant from New York, published the article entitled Forensic Accounting: Its Place in today's economy. The book, Forensic Accounting: the Accountant as an Expert witness was written by Francis C. Dykeman, in 1982. The American Institute of Certified Public Accountants (AICPA) issued Practice Aid 7 in 1986, which outlines six areas of litigation services which include damages, antirust, and accounting.

The constant need for forensic accounting in fighting crimes has resulted from regulatory and criminal statutes passed over time. One of the first income tax evasion cases uncovered by forensic accountants was that of the infamous gangster, Al Capone. During World War, II, the Federal Bureau of Investigation (FBI) employed over 500 forensic accountants who were used to examine and monitor financial transactions (Ziegnefuss, 2003). Equally important is the creation of a culture and environment which is aimed at the prevention of fraud and a response policy that is designed to respond to fraud detection as effectively as possible. According to a report released by Nedcor, crime cost South Africa R13 billion rends in 1994/1995. A large part of this amount can be attributed to white-collar crime.

Like any other job, Forensic Accounting has evolved with time. The industry has been affected by changes in technology, society, and the economy. As one aspect of the world changes so has the job of a Forensic Accountant. Continuous education is only one way in which Forensic Accountants learn how to adjust to new challenges. The profession has been around since the early 1900s and has greatly altered the way fraud is discovered and handled since its inception. In the 1990s the FBI announced that white-collar crime made up only 5% of all cases they saw. They also noted that white-collar crime was responsible for 95% of the financial losses suffered by victims (Meaning, 2005). Forensic Accountants are used to mitigating these losses and recover them if possible.

Definition of Forensic Accounting

KPMG (1999) defines forensic accounting as assistance in disputes which are likely to involve litigation, arbitration, expert determination, mediation or an enquiry by an appropriate regulatory authority, and investigation of suspected frauds, irregularity or impropriety proceedings which could potentially lead to civil, criminal or disciplinary proceedings, which focuses primarily on accounting issues.

Chilver (2000) defines forensic Accounting as the use of investigative techniques, integrated with accounting and business skills, to develop information and opinions for evidence in court and used by expert witnesses.

Forensic accounting is recognized as a form of professional expertise and endowed with specific attributes; the recognition comes from possessing a formal certification in forensic means suitable for use in a court of law, and it is to that standard and potential outcome that forensic accountants generally should work (Crumbley, Heitger, & Smith, 2005).

In the view of Howard and Sheetz (2006), forensic accounting is the process of interpreting, summarizing, and presenting complex financial issues, succinctly, and factually often in a court of law as an expert. Accounting is all about numbers and working out what they mean for your business, but sometimes numbers don't show the whole truth. Forensic accounting considers more than just figures to fully display the financial status of a company in legal terms. Explore forensic accounting in greater depth with our comprehensive guide.

1.2 Types of Forensic Accounting

The term "forensic" may make it sound like forensic accounting takes place at gruesome crime scenes, and while that's not quite how it works, forensic accounting is used to recognise crimes. "Forensic" can be defined as "techniques used in connection with the detection of a crime," and forensic accounting is used to detect crimes like fraud.

Examples of forensic accounting roles include:

i. Investigative accountants
ii. Fraud auditors
iii. Forensic auditors
iv. Fraud investigators

White-collar crimes call for forensic accountants to find proof of misdemeanors, which can include:

i. Embezzlement
ii. Money laundering
iii. VAT fraud
iv. Tax evasion
v. Financial exploitation
vi. Hidden assets

However, some cases are more pedestrian, such as investigating insurance claims to establish damages.

Objectives of Forensic Accounting

The main objective of forensic accounting is to find proof of a crime and to present it in a way that can stand up in a court of law. Looking into the financial records of an individual, or even an entire corporation, is a massive undertaking that requires the specialist skills of forensic accountants. The prevention of crime is also crucial for auditors, who are hired to ensure your company's financial records are compliant with laws and regulations.

Therefore, the purpose of forensic accounting is to:

i. Prove financial crimes
ii. Prevent financial crimes
iii. Anticipate future crimes

Forensic accounting is as much about the criminal as their crime, so there is much more to the field than just numbers. Forensic accounting professionals must create a clear picture based not only on figures but also on the company's broader operations.

How does forensic accounting work?

Forensic accounting takes into account a wide range of documents to uncover crimes, including:

a. Examining financial statements
b. Talking to associated parties
c. Examining internal data
d. Examining court records
e. Collaborating with government officials or lawyers
f. Examining bank statements, credit statements
g. Examining correspondence like invoices, letters, and emails
h. Conducting interviews
i. Observing and proving changes in the lifestyle of the accused, i.e., increased spending

Forensic accountant professionals also need to employ their traditional accounting skills to determine whether the company's expected revenues match their actual revenues. They must then make this digestible to a court using graphs, sheets, or other visualisation methods.

The Role of Forensic Accounting

The Role of Forensic Accounting in Solving the Vexed Problem of Corporate World according to Owojori and Asaolu (2009) are as follows:

i. Giving preliminary advice as an initial appraisal of the pleading and evidence available at the start of proceedings.
ii. Identifying the key documents which should be made available as evidence is important when the forensic accountant is acting for the defense and lawyers are preparing lists of documents to tender in court.
iii. Preparing a detailed balanced report on the quantum of evidence, written in a language readily understood by a non-accountant and dealing with all issues, irrespective of whether or not they are favorable to the client.
iv. Reviewing expert accounting reports submitted by the other party which may have an impact on the quantum of evidence and advising lawyers on these reports.

Importance of Forensic Accounting

Forensic accounting is an exciting and rewarding field that allows professionals to use their accounting knowledge and investigative skills to catch criminals, settle lawsuits, and reduce the risk of large-scale fraud.

The following are the importance of forensic accounting;

a. Complex Litigation

Many of today's financial disputes require specialized attention that even knowledgeable attorneys are unable to provide. Forensic accountants can lend a hand by deciphering complicated financial issues and relaying them in a way that both attorneys and their clients can understand. Forensic accountants may also play an investigative role in civil cases, working with attorneys to find unreported income or assets.

b. Government Investigations

Forensic accountants' investigative abilities can be put to good use, not only in standard civil disputes but also in larger government investigations. For example, in major criminal investigations, forensic accountants can play a chief role in tracing complex money trails.

Although non-agent consultants may be relied on at the regional and state level, the hundreds of forensic accountants employed by the FBI typically handle sensitive matters. Accounting currently qualifies as one of five main FBI Special Agent Entry Programs. Other major government employers include the IRS and the SEC's Division of Enforcement.

c. Prevention and Risk Management

Corporate entities and government agencies are increasingly turning to forensic accounting experts for assistance with preventive measures, designed to keep fraud and the associated expense of the investigation (and litigation) process to a minimum. Forensic accountants may be asked to conduct thorough internal audits, through which potential pitfalls are uncovered. After identifying problem areas, forensic accountants can help corporate and non-profit clients take the necessary next steps to minimize the potential for fraud. In the corporate environment, forensic accountants can also monitor for compliance with emerging regulations.

Forensic accounting represents the only realistic approach to gaining a deeper understanding of what's going on behind the scenes in a financial capacity. As such, for any business with an interest in minimizing losses and maximizing revenues, it is an invaluable specialism.
The primary importance of quality forensic accountancy includes:

i. Minimized Losses

The primary benefit of strong forensic accounting is how it can help minimize and prevent unnecessary loss. Fraudulent activity and general financial discrepancies cost the business community extraordinary sums of money, every hour of every day. The forensic accountant ensures this isn't allowed to happen.

ii. Improved Efficiency

Forensic accountants play a key role in examining and investigating current financial processes and standards, which can help in the identification of more effective and efficient solutions. The whole process is one of detecting problems and areas of improvement for the benefit of the business.

iii. Reduced Exploitation Risk

By proactively patching any obvious ‘gaps’ in current financial operational standards, the forensic accountant can ensure that the risk of future exploitation is significantly reduced. It’s a case of protecting the best interests of the business *before* fraudulent activity can take place.

iv. Avoidance of Legal Problems

Dealing with instances of fraud (internal or external) can be spectacularly disruptive and costly for the business. In an ideal situation, forensic accountancy can be used to avoid such scenarios from ever occurring by both preventing fraudulent activity and nipping any problems detected in the bud.

v. Improved Brand Reputation and Authority

A brand that leaves itself wide open to manipulation and fraud is a brand that is very difficult to respect, trust, and work with. Fraud can do the kind of reputational damage that is borderline impossible to repair – hence the importance of thorough and ongoing forensic International fraud and economic crime surveys consistently report that fraud is a serious problem affecting organizations, without regard to geographical location, size, or industry (ACFE, 2014; E&Y, 2014; PwC, 2014; KPMG, 2013). A constant finding is the most common way of discovering a fraud is through a tip, regardless of the source (e.g. employee, vendor, customer, or anonymous). Further, the surveys report that external auditors rarely discover fraud because many times it may not be causing financial statements to be materially misstated. Owing to the significant amount of employee and management fraud, embezzlement and other financial crimes occurring in today’s society, accounting and auditing professionals must have appropriate forensic accounting training and skills to recognize those crimes (Houck et al., 2006).

Justification on Importance of Forensic Accounting

According to Onabolu (2017), the discipline is beginning to see many avenues for additional proficiencies that go beyond skill sets and it plays a crucial role in determining the outcome of courtroom events. Forensic Accounting is in its current state due to a few factors- one of which is the rise of a new generation of hopeful entrepreneurs and business professionals.

With the new reliance on technology, the role of the forensic accountant has expanded into the digital world. Information stored online regardless of the strength of passwords and other security features is always at some level of risk and the modern forensic accountant has evolved their skills to include various methods of investigation that apply to the ever-changing digital world.

They can be commonly seen sifting through enormous email accounts and other digital services for the hint of fraudulent activity, just as easily as they are found sorting boxes of files, folders, and forms. However, forensic accounting can be considered as a methodology of resolving fraud allegations from inception to disposition including obtaining evidence, interviewing, writing reports, and testifying. The ACFE's manual states that fraud examiners also assist in fraud prevention, detection, investigation, and remediation (Rezae, 2002). Like most forensic sciences, fraud and forensic accounting may involve using financial information to piece together or reconstruct past events in instances where that construction is likely to be used in some judicial proceeding (e.g. criminal or civil court, deposition, mediation, arbitration, or settlement negotiation).

Advantages of forensic accounting

Forensic accounting is an area of accounting that requires deeper specialism than standard accounting. Large companies will have a dedicated forensic accountant to ensure they are always compliant and make sure financial exchanges with other parties are carried out correctly. It may be worth adding a forensic accounting professional to your business if you plan to grow, as the advantages of forensic accounting include:

1. Helps solve and prevent financial crimes
2. Helps monitor your current processes and teams
3. Helps evaluate the compliance of parties you are considering working with

However, introducing forensic accounting can be a sensitive issue. If your team feels that their professionalism or integrity is under investigation, morale can drop.

Degboro and Olofinsola (2007) noted that forensic investigation is about the determination and establishment of facts in support of the legal case. That is, to use forensic techniques to detect and investigate a crime is to expose all its attending features and identify the culprits. Due to the common nature of the various definitions reside in the areas of litigation services, accounting investigation, and preparing court-ready evidence all of which are of great importance to the banking industry. Forensic accounting may be one of the most effective and efficient ways to reduce and prevent fraudulent activities as it is concerned with the evidentiary nature of accounting data, and as a practical field concerned with:

a. Accounting fraud and forensic auditing
b. Compliance
c. Due diligence and risk assessment;
d. Detection of financial misrepresentation and financial statement fraud (Skousen & Wright, 2008).

Forensic accounting is that aspect of accounting that provides analysis that is suitable to the court which will form the basis for discussion debate and ultimately disputes resolution (Wallace, 1991). However, Forensic accounting is different from the old debit and credit accounting as it provides an accounting analysis that is suitable to the organization which will help in resolving the disputes that arise in the organization (Mohammed, 2008).

Hopwood, Leiner, and Young (2008) argued that forensic accounting is the application of investigative and analytical skills for resolving financial issues in a manner that meets the standard required by courts of law.

Forensic accounting is a science dealing with the application of accounting facts and concepts gathered through auditing methods, techniques, and procedures to resolve legal problems which require the integration of investigative, accounting, and auditing skills (Arokiasamy & Cristal, 2009; Dhar & Sarkar, 2010).

Dhar and Sarkar (2010) defined forensic accounting as the application of accounting concepts and techniques to a legal problem. It demands reporting, where accountability of the fraud is established and the report is considered as evidence in the court of law or administrative proceedings. It is concerned with the use of accounting discipline to help determine issues of facts in business litigation (Okunbor & Obaretin, 2010).

Forensic accounting is a discipline that has its models and methodologies of investigative procedures that search for assurance, attestation, and advisory perspective to produce legal evidence. It is concerned with the evidentiary nature of accounting fraud and forensic auditing;

compliance3, misrepresentation and financial statement fraud; tax evasion; bankruptcy and valuation studies, violation of accounting regulation (Dhar & Sarkar, 2010).

Stanbury and Paley-Menzies (2010) state that forensic accounting is the science of gathering and presenting information in a form that will be accepted by a court of jurisprudence against perpetrators of economic crime. The America Institute of Certified Public Accountants (AICPA) defines forensic accounting as services that involve the application of specialized knowledge and investigative skills possessed by Certified Public Accountants. Forensic accounting services utilize the practitioner's specialized accounting, auditing, economic, tax, and other skills (AICPA 2010).

Singleton and Singleton (2010), and said forensic accounting is the comprehensive view of a fraud investigation. It includes preventing frauds and analyzing antifraud control which includes the gathering of nonfinancial information.

According to the Institute of Forensic accountancy (IFA) of Nigeria, forensic accounting is the specialty practice of accounting that describes engagement that results from anticipated disputes or litigations. Forensic accounting to Webster's dictionary means belonging to use in or suitable to court to jurisdiction or public discussion debate. Forensic audit or forensic accounting can be used interchangeably; forensic accountants often should give expert evidence at the eventual trial. All of the larger accounting firms, as well as many medium-sized and boutique firms, have a specialist forensic accounting department, within this groups, there may be further sub-specialization for example, some forensic accountant may just specialize in insurance claims, personal injury claims, fraud construction or royalty audit (Timbee, 2011).

According to Oyedokun (2013), forensic accounting is a scientific accounting method of uncovering, resolving, analyzing, and presenting fraud matters in a manner that is acceptable in the court of law has been criticized as not covering the intent of forensic and its full scope. Limiting the definition to fraud matters skewed it too close to the meaning of fraud examination or fraud investigation.

Notwithstanding all about the definition of forensic accounting, Oyedokun (2018) give a compressive definition of forensic accounting as a scientific accounting method of uncovering, analyzing, resolving, and prevent fraud and white-collar crime matters in a manner that produces admissible evidence that is capable of proving or disproving facts in issue suitable in the court of law.

Similarly, in his study, Oyedokun (2018) contributed to the existing knowledge in terms of forensics concepts, where new definitions were brought forward as a result of the findings herein. These are tax accounting, forensic taxation, forensic tax audit, forensic tax investigation, and forensic tax justice among others.

These are briefly discussed below:

a. **Forensic Tax Accounting:** Forensic tax accounting is the forensic accounting process that focuses on tax issues including ensuring correct filing of tax returns and planning for future tax responsiblilit8ies – as opposed to the preparation of financial statements. Forensic statements. Forensic tax accounting is a specialized field of forensic and accounting where accountants focus on the preparation of tax returns as well as tax planning for future taxable years while considering the skills in preparation of financial accounting and having in mind that the report could be used in court (Tax Appeal Tribunal).
b. **Forensic Taxation:** Forensic taxation is the application of taxation skills, accounting skills, auditing skills, and investigative skills to ensure that the taxes due by taxpayers remit their tax returns to the tax authorizes as a when due in a manner suitable to law.
c. **Forensic Tax Audit:** forensic tax audit is the integration of taxation skills, auditing skills, accounting skills, and investigative skills by tax authorities in examining taxpayers' tax affairs, closely and verifying that the income and deductions are accurately stated.
d. **Forensic Tax Investigation:** Forensic tax investigation is the application of auditing skills, accounting skills, and investigative skills in taxation by tax authorities for an in-depth examination in tax affairs of the taxpayers, to uncover and recover tax undercharged in previous years of assessment.
e. **Forensic Tax Justice:** Forensic tax justice is the application of taxation and forensic investigative skills in ensuring that those charged with governance of stated are examined with a view of reinstating the utilization of tax revenue in a manner that brings about development in the state.

Components of Forensic Accounting

There are two major components of forensic accounting as stated by ICMAI (2014) as corroborated by Oyedokun (2017):

a. **Litigating services:** the litigation service component of forensic accounting recognizes the role of an accountant as an expert consultant.
b. **Investigative service:** requires the use of forensic accountant's skills and may require courtroom testimony.

Litigation support assists all nature in a matter involving existing or pending litigation. It deals primarily with issues related to the quantification of economic damages, while investigative accounting is associated with the investigation of criminal matters (Zysman, 2001). Under litigation support, forensic accountant assists in:

i. Obtaining documents necessary to support or refute a claim.
ii. Reviewing the relevant documentation to form an initial assessment of the case in an identified area of loss.
iii. Examination for discovering, including the formulation of the act regarding the financial residence.
iv. Attendance at the examination for discovery to review the testimony, assist with understanding the financial issues, and formulate additional questions to be asked.

While investigative forensic accounting services, on the other hand, reviews the factual situation and provides suggestions regarding possible courses of action, assist with the protection and recovery of assets, coordinate other experts (Zysman, 2001).

Objectives of Forensic Accounting and Auditing

The following are the objectives of forensic accounting as espoused by ICMAI (2014):

i. To use the forensic accountant's conclusions to facilitate a settlement, claim, or jury award by reducing the financial component as an area of continuing debate
ii. To avoid fraud and theft
iii. To restore the downgraded public confidence
iv. To formulate and establish a competent corporate governance policy
v. To create a positive work environment

Bhasin (2007) noted that the objectives of forensic accounting include: assessment of damages caused by an auditor's negligence. Fact-finding to see whether embezzlement has taken place, in what amount, and whether criminal proceedings are to be initiated; a collection of evidence in criminal proceedings; and computation of asset values in a divorce proceeding. Singleton (2010) argues that the primary orientation of forensic accounting is an explanatory analysis of phenomenon including the discovery of deception, and its effects introduced into the accounting domain. A forensic account has a unique job because of the responsibilities involved in the integration of accounting, auditing, and investigative skills. Using all these skills, forensic accounting is evidently, a true investigator and it is trained beyond the numbers and deals with the business reality of the situation (Wallace, 1991).

A forensic accountant can ensure the integrity and transparency of financial statements by actively investigating for fraud, identifying areas of risk and associated fraud symptoms, and a good fraud prevention program can help to create a positive working environment where employees do not indulge themselves to abuse their responsibilities. So, by helping companies to prevent and detect fraud the forensic accountant can help to establish a comprehensive corporate governance policy.

Forensic accountants can support the propagation of the required information about governance and ethics policies to interested parties within and outside the organization. In this way, they can help to maintain a good image of their respective companies to its stakeholder and also build up effective communication process and transparency.

The fraud prevention strategy outlines a high-level plan for how the organization will go about implementing its fraud prevention policy. An effective fraud risk management approach encompasses controls that have three objectives:

a. Prevent
b. Detect
c. Respond

Fraud risk management strategy can follow the following steps:

a. Identify risk areas.

b. Understand and assess the scale of risk
c. Develop a risk response strategy
d. Implement the strategy and allocate responsibilities.
e. Implement and monitor the suggested controls.
f. Review and refine the process and do it again.

Fraud risk management is not a one-time exercise but a continuous process. As businesses change and grow, so do their fraud risks.

Various types of forensic auditing can take place, and they are typically grouped by the types of legal proceedings that they fall under. Below are some of the most common examples:

i. Financial theft (customers, employees, or outsiders)
ii. Securities fraud
iii. Bankruptcy
iv. Defaulting on debt
v. Economic damages (various types of lawsuits to recover damages)
vi. M&A related lawsuits
vii. Tax evasion or fraud
viii. Corporate valuation disputes
ix. Professional negligence claims
x. Money laundering
xi. Privacy information
xii. Divorce proceedings

1.3 Stages of Forensic Accounting Operations

Forensic accounting covers a broad spectrum of activities, with terminology not strictly defined in regulatory guidance. Generally, the term ‘forensic accounting’ is used to describe the wide range of investigative work that accountants in practice could be asked to perform. The work would normally involve an investigation into the financial affairs of an entity and is often associated with investigations into alleged fraudulent activity. Forensic accounting refers to the whole process of investigating a financial matter, including potentially acting as an expert witness if the fraud comes to trial. Although this article focuses on investigations into alleged frauds, it is important to be aware that forensic accountants could be asked to look into non-fraud situations, such as the settling of monetary disputes about a business closure or matrimonial disputes under insurance claims.

The process of forensic accounting as described above includes the 'forensic investigation' itself, which refers to the practical steps that the forensic accountant takes to gather evidence relevant to the alleged fraudulent activity. The investigation is likely to be similar in many ways to an audit of financial information, in that it will include a planning stage, a period when evidence is gathered, a review process, and a report to the client. The purpose of the investigation, in the case of alleged fraud, would be to discover if fraud had taken place, to identify those involved, to quantify the monetary amount of the fraud (ie the financial loss suffered by the client), and to ultimately present findings to the client and potentially to court.

Finally, 'forensic auditing' refers to the specific procedures carried out to produce evidence. Audit techniques are used to identify and to gather evidence to prove, for example, how long the fraud has been carried out, and how it was conducted and concealed by the perpetrators. Evidence may also be gathered to support other issues that would be relevant in the event of a court case. Such issues could include:

i. the suspect's motive and opportunity to commit fraud;

ii. whether the fraud involved collusion between several suspects any physical evidence at the scene of the crime or contained in documents;

iii. comments made by the suspect during interviews and/or at the time of arrest; and

iv. attempts to destroy evidence.

The objective of Forensic Investigations

The objective of a forensic investigation is to obtain evidence that might be used in legal proceedings to resolve a dispute or prove innocence/guilt in a criminal case, such as providing evidence of money laundering. Often forensic investigations are usually reactive, meaning that they seek to prove or disprove suspicions of wrongdoing and provide evidence for legal proceedings. However, investigations can also be proactive or preventative. Techniques of forensic auditing can be used to identify risks of wrongdoing and then steps can be taken to improve the situation. Such investigations involve four phases as given below:

a. Planning phase;
b. The phase of gathering evidence;
c. Review phase; and
d. Report to the client.

Types of Investigation

The forensic accountant could be asked to investigate many different types of fraud. It is useful to categorize these types into three groups to provide an overview of the wide range of investigations that could be carried out. The three categories of fraud are corruption, asset misappropriation, and financial statement fraud.

Corruption

There are three types of corruption fraud: conflicts of interest, bribery, and extortion. Research shows that corruption is involved in around one-third of all frauds.

1. In a conflict of interest fraud, the fraudster exerts their influence to achieve a personal gain which detrimentally affects the company. The fraudster may not benefit financially, but rather receives an undisclosed personal benefit as a result of the situation. For example, a manager may approve the expenses of an employee who is also a personal friend to maintain that friendship, even if the expenses are inaccurate.

2. Bribery is when money (or something else of value) is offered to influence a situation.

3. Extortion is the opposite of bribery, and happens when money is demanded (rather than offered) to secure a particular outcome.

Asset misappropriation is the most common frauds are those involving asset misappropriation, and there are many different types of fraud that fall into this category. The common feature is the theft of cash or other assets from the company, for example:

1. Cash theft – the stealing of physical cash, for example, petty cash, from the premises of a company.

2. Fraudulent disbursements – company funds being used to make fraudulent payments. Common examples include billing schemes, where payments are made to a fictitious supplier, and payroll schemes, where payments are made to fictitious employees (often known as 'ghost employees').

3. Inventory frauds – the theft of inventory from the company.
4. Misuse of assets – employees using company assets for their interest.

Justifications for Forensic Accounting

There are some justifications for using forensic accounting.

1. Widespread use of false accounting information: this phenomenon resulted in big losses for the emerging economies, and these have had an impact on the economic development and state revenues. Perhaps the most prominent example of this situation in Iraq is the accounting statement prepared by auditors for the companies benefiting from, where the auditor prepares a statement of current account and balance sheet following the company's desire to show losses in which they use for tax evasion purposes or to show a few profits to compete for local tenders (Hao, 2010)

2. Weakness and lack of legal and accounting legislation in solving problems: Legislations dealing with financial and administrative corruption are characterized by weaknesses and stereotypes, therefore they can no longer respond to the exacerbation of these dangerous phenomena, in adding to the fact that the traditional accounting procedures do not contribute to detecting and diagnosing financial corruption cases, because they focus. On the form rather than content (Renzhous, 2011).

3. Weakness in traditional auditing: Audit procedures suffer from obvious deficiencies in diagnosing the financial distractions as the evidence provided by the internal auditors is still limited and unable to detect corruption and financial deviations mainly because they do not enjoy administrative autonomy.

4. Lack of professional institutions to provide forensic accounting consulting: Unlike the developed countries, most emerging countries do not have a special organization that could provide the real forensic accounting service to judicial authorities. This shortage could affect the objectivity of judicial rulings and exacerbate the problem of financial corruption (Renzhou, 2011).

Importance of Forensic Accounting

The discipline is beginning to see many avenues for additional proficiencies that go beyond skill sets and it plays a crucial role in determining the outcome of courtroom events, Forensic Accounting us u buts current state due to a few factors- one of which is the rise of a new generation of hopeful entrepreneurs and business professionals. With the new reliance on technology, the role of the forensic accountant has expanded into the digital world. Information stored online regardless of the strength of passwords and other security features is always at some level of risk and the modern forensic accountant has evolved their skills to include various methods of investigation that apply to the ever-changing digital world.

They can be commonly seen sifting through enormous email accounts and other digital services for the hint of fraudulent activity, just as easily as they are found sorting boxes of files, folders, and forms, however, forensic accounting can be considered as a methodology for resolving fraud allegations from inception to disposition including evidence, interviewing, writing reports and testifying. The ACFEs manual states that fraud examiners also assist in fraud prevention, detection, investigation, and remediation (Rezae, 2002). Like most forensic science, fraud forensic accounting may involve using financial information to piece together or reconstruct past events in instances where that construction is likely to be used in some judicial proceeding (e.g. criminal or civil court, deposition, mediation, arbitration, or settlement negotiation).

Reasons for Forensic Accounting

Accounting is an age-old system with the conventional idea of a numeric transaction purpose wise and chronologically. Conventional accounting could not bring into light many financial irregularities appropriation and expropriation detrimental to stakeholders.

With complex trade patterns with the international angle, it was seen to be inadequate to the expectation of corporate culture. Governance was held to be a central theme but orthodox transactional audit and accounting systems did not cope with the expectations. Corporate strategies could not be constructed with historical data. To cope with the dynamic situation, continuous revision of accounting standards throughout the globe became a usual practice in the accountancy profession (ICMAI, 2014).

Information technology came into the picture for combating the situation as a result of various causes. For proper risk management, the reputational risk was to be managed which involves effective E-management business process re-engineering, corporate governance, and proper IT platform.

The occasion of fraud and irregularities and lapses in compliance culture necessitated proper investigation thereof and a strong preventive environment. Thus forensic accounting was called to detect planning of the fraud, execution of the fraud, consequences of the fraud, and book the culprits without much time lag.

Organization of Forensic Accounting Profession

Forensic Accounting is an offshoot of general professional accounting and it is affiliated with professional accounting institutes. For practice, individual firms of general accounting practitioners departmentalize and train specialists in investigative accounting within their general practice firms. For example, the Canadian Institute of Chartered Accountants established the Alliance for excellence in investigative and forensic accounting in 1998. Crumbley (2003) also stated that a forensic accountant is typically Certified Public Accountants (CPA) or Chartered Accountants (CA) that specialize in those types of engagements where there is a need for such evidence. Hence, a forensic accountant refers to a certified public accountant who performs an orderly analysis to obtain the truth on which to form an expert opinion. On the other side, separate bodies are also springing up for forensic accountants and the firm of same is being established. Examples are the Association of Certified Fraud Examiners, National Association of

Forensic Accountants, America College of Forensic Financial analyst, and Forensic CPA Society. The practice is just gaining popularity in Nigeria. As such, there can only be instances of professionals engaging in investigative activities and there can be knowledgeable and experienced persons in investigative accounting.

1.4 Fraud Examination and Investigative Accounting

A forensic accountant or fraud examiner is typically an accountant that is hired by a large firm or company but can also be engaged in public practice. Or can be employed by insurance companies, banks, police forces, government agencies, or other organizations. The forensic accountant would be hired by such an organization to investigate, analyze interpret, summarized, and present complex financial & business information so that it can be easily understood and properly supported.

According to Bhasin (2007), forensic accountants are trained to look beyond the numbers and deal with the business realities of situations. Analysis, interpretation, summarization, and the presentation of complex financial business-related issues are prominent features of the profession. He further reported that the activities of forensic accountants involve:

1. Investigating and analyzing financial evidence;
2. Developing computerized applications to assists in the analysis and presentation of financial evident;
3. Communicating their findings in the form of reports, exhibits, and collections of documents; and
4. Assisting in legal proceedings, including testifying the courts, as an expert witness, and preparing visual aids to support trial evidence.

In the same vein, Degboro and Olafinsola (2007) stated that forensic accountants assist in accounting nature in a financial crime and related economic matters involving existing or pending cases as specified by the Alliance for Excellence I Investigation and Forensic Account (alliance) of Canada and this include:

1. Assisting in obtaining documentation necessary to support or refute a claim;

2. Review of the relevant documentation form an initial assessment of the cases and identify areas of loss.
3. Assistance whit the examination for discovery and the formulation of questions to be asked regarding the financial evidence;
4. Attendance at the examination for discovery to review the testimony; assist with understanding the financial issues and to formulate additional questions;
5. Reviewing the opposing expert's damaging report, and reporting on both the strengths and weaknesses of the position taken; and
6. Attendance at trial, to hear the testimony of the opposing expert and provide assistance with cross-examination.

Gray (2008) reported that the forensic accounting investigation includes identification fraud. Gottschalk (2010) states that the focus of forensic accounting is evidence revealed by the examination of financial documents. The evidence collected or prepared by a forensic accountant may be applied in different contexts. According to Curtis (2008), Forensic accountants are essential to the legal system, providing expert services such as fake invoicing valuations, suspicious bankruptcy valuations, and analysis of financial documents in fraud schemes. These fraud auditors calculate values, draw conclusions and identify irregular patterns or suspicious transactions by critically analyzing the financial data (Arodiasmy & Cristal, 2009). It provides an accounting analysis to the court for dispute resolution in certain cases and it also provides the court with an explanation of the fraud that has been committed. That is why forensic accounting may play a vital role in detecting and reducing accounting frauds in the business sector. In this concept, forensic accountants provide an account analysis to determine the facts necessary to resolve a dispute before it is brought before the court or the lawsuit process takes its course (Ozkul & Pamuke, 2012).

The job of forensic accountants is to apprehend the perpetrator and look into fraud occurring in the companies per year. This includes tracing money laundering and identity theft activities as well as tax evasion. Insurance companies hire forensic accountants to detect insurance frauds such as arson, and law offices employ forensic accountants to identify marital assets in divorce cases (Weygandt, Kieso, & Kimmel, 2008). Forensic accounting has been pivotal in the corporate agenda after the financial reporting problems which took place in some companies around the world, for instance, Enron, Tyco, and WorldCom. These scandals resulted in the loss of public trust and huge amounts of money. To avoid fraud and theft, and to restore the badly needed public confidence, several companies took the step to improve the infrastructure of their internal control and accounting systems drastically. It was this development that increased the importance of accountants who have chosen to specialize in forensic accounting and who are consequently referred to as forensic accountants. Baird and Zelin (2009) say that forensic accounting is an important investigative tool for the detection of fraud.

Forensic accountants may appear on the crime scene a little later than fraud auditors, but their major contribution is in translating complex financial transactions and numerical data into terms that ordinary laypersons can understand. That is necessary because if the fraud comes to trial, the jury will be made up of ordinary laypersons. Areas of expertise of forensic accountants are not only in accounting and auditing but in a criminal investigation, interviewing, report writing, and testifying as expert witnesses. They must be excellent communicators and professional in demeanor.

The involvement of the forensic accountant is almost always reactive which distinguishes forensic accountants from fraud auditors, who tend to be actively involved in prevention and detection in a corporate or regulatory in criminal matters, statements of a claim arising in civil litigation, and rumors and inquiries arising in corporate investigations. The investigative findings of the forensic accountant will impact an individual and/or a company in terms of their freedom or a financial award or loss. ACFE (2018) refers to this person as a fraud examiner.

The forensic accountant draws on various resources to obtain relevant financial evidence and to interpret and present this evidence in a manner that will assist both parties. Ideally, forensic accounting should allow two parties to more quickly and efficiently resolve the complaint, statement of claim, rumor, or inquiry, or at least reduce the financial element as an area of ongoing debate.

Forensic accountants use their knowledge of accounting, law investigative auditing, and criminology to uncover fraud, find evidence and present such evidence in court if required.

The roles of a Forensic Accountant as espoused by Oyedokum (2017) are as follows:

i. Investigating financial accounts for illegal activity such as white-collar crime.
ii. Interprets findings of an investigation to determine if there's a problem.
iii. Examines financial data regarding alleged criminal activity such as fraud, money laundering, illegal transactions, and embezzlement.
iv. These financial records may include bank accounts, records, or financial transactions.
v. Using knowledge of the law and accounting to determine whether there is fraudulent activity.
vi. Working with law enforcement, private investigators, or lawyers while conducting investigations.
vii. Testifies in court about the investigation.
viii. Assist the courts, solicitors, and clients to understand the complex financial and accounting issues and presenting that information in a manner that all users can understand.

Forensic Accountants helps at several different levels in the litigation process including:

i. Assisting in the initial discovery
ii. Applying our commercial knowledge and expertise
iii. Providing expert evidence both written and oral
iv. Independence
v. Criminal investigations
vi. Shareholders' and Partnership Disputes
vii. Personal Injury Claims/Motor Vehicle Accidents
viii. Business Interruption/Other Types of Insurance Claim
ix. Business/Employee Fraud Investigations
x. Matrimonial Disputes
xi. Business Economic Losses
xii. Professional Negligence
xiii. Mediation and Arbitration

Basic skills of Forensic Accountants

According to Harris and Brown (2000) while investigating the qualities of a forensic accountant identify specialized skills and abilities that should be possessed by experts of their nature. They discovered that a forensic accountant should be conversant with civil and criminal law. Also, they stressed the need for an understanding of courtroom procedures and expectations, investigative skills, creative thinking as well as clear and precise communication skills. According to Grippo and Ibex (2003), the most important skills of a forensic accountant arise from experience in accounting, internal controls, business operations, and communication. A set of competencies required by a forensic accountant have been identified by DiGabriele (2009). These kills include:

i. Good analytical skills
ii. Creative thinking skill,
iii. Strong knowledge of the legal environment
iv. Unstructured problem-solving competence,
v. Investigative flexibility,
vi. Analytical proficiency including oral communication ability, written communication ability,
vii. Practical business experience

A forensic accountant is expected to have competence in a Broad Spectrum of disciplines including accounting, law, auditing, criminology, and information technology and communication skills.

Application of forensic accounting by forensic accountants

Forensic accounting may be conducted into the following

i. Fraud and white-collar crime investigations;
ii. Criminal and civil investigations;
iii. Preparation of expert reports, reviews, and evidence;
iv. Testifying as an expert witness;
v. Insolvency and liquidation support investigation;
vi. Fraud prevention and awareness strategies;
vii. Fraud and fraud tracing

viii. Civil and criminal actions regarding fraud and financial irregularities;
ix. Breach of contract;
x. Breach of warranty, particularly on company acquisitions;
xi. Insurance claims;
xii. Liquidation support;
xiii. Regulatory enquiries;
xiv. Special and confidential investigation;
xv. Financial surveillance
xvi. Anti-money laundering programs
xvii. Fraud and risk management surveys and reports
xviii. Background checks

A forensic accounting engagement and investigation is typically substantially longer than any other investigation.

Continuity of staff on the part of the client is therefore often difficult to maintain. This makes it more essential that the forensic accountant conducts his work in a manner that is concise, detailed document.

Justification to Use and Develop Forensic Accounting

There are some justifications for using the forensic accounting technique.

i. **Widespread use of false accounting information:** This phenomenon resulted in big losses for the emerging economies, and these losses have had an impact on the economic development and state revenues. Perhaps the most prominent example of this situation in Iraq is the accounting statements prepared by auditors for the companies benefiting from, where the auditor prepares a statement of current account and balance sheet by the company's desire to show losses in which they use for tax evasion purposes or to show a few profits to compete for local tenders (Hao, 2010).

ii. **Weakness and lack of legal and accounting legislation in solving problems:** Legislations dealing with financial and administrative corruption are characterized by weaknesses and stereotypes, therefore they can no longer respond to the exacerbation of these dangerous phenomena, in addition to the fact that the traditional accounting procedures do not contribute to detecting and diagnosing financial corruption cases, because they focus on the form rather than content (Renzhou, 2011).

iii. **Weakness in the traditional auditing:** Audit procedures suffer from obvious deficiencies in diagnosing the financial distractions as the evidence provided by the internal auditor is still limited and unable to detect corruption and financial deviations mainly because they do not enjoy administrative autonomy

iv. **Lack of professional institutions to provide forensic accounting consulting:** Unlike the developed countries, most emerging countries do not have a special organization that could provide the real forensic accounting service to judicial authorities. This shortage could affect the objectivity of judicial rulings and exacerbate the problem of financial corruption (Renzhou, 2011).

Forensic Accountant: Required knowledge, skill, and abilities

Many of the aspects of forensic accounting fall outside the traditional education, training, and experience of auditors and accountants. The following skills, abilities, and/or knowledge are necessary to serve as an effective forensic accountant:

1. **Ability to identify frauds with minimal initial information**: many times, the fraud investigation begins with minimal knowledge of the specifics of potential fraud. The forensic accountant needs to be able to identify the possible manner it was perpetrated, and potentially effective procedures to prove the potential fraud.
2. **Interviewing**: throughout seeking evidence and information, the forensic accountant becomes involved in interviewing. For the forensic accountant, this function is another art to master. There are many things about interviewing, including what is the best order in which to interview parties of interest that the forensic accountant must be prepared to handle a confession in such a way that the process ensures the evidence is admissible in a court of law.

3. **Mindset**: one of the critical success factors of forensic accountants, and one of the hardest to define or measure is the mindset. A successful forensic accountant has a certain mindset that includes several abilities. He or she can think like a crook. This attribute is counter to the average auditor who has lived a life with integrity and believes strongly in honesty. The successful forensic accountant knows almost instinctively that something does not pass the smell test. He or she can sense the anomaly. This person has a healthy skepticism always, neither fully trusting people nor fully distrusting them. They have a natural tendency to question the substance behind transactions, documents, and testimony (written or oral) that others do no have. They also know, and have the following mindset factors:
    i. Fraud can be detected as well as discovered by accident or tip
    ii. Financial audit methodologies and techniques are not designed to detect fraud but rather designed to detect material financial misstatements.
    iii. Fraud detection is more of an art than a science. It requires innovative and creative thinking as well as the rigor of science.
    iv. Determination, persistence, and self-confidence are more important attributes for a fraud auditor than intelligence.
    v. Logic and problem-solving and detective skills are critical success factors for fraud auditors and forensic accountants.
4. **Knowledge of evidence**: the forensic accountant must understand what constitutes evidence, the meaning of best and primary evidence, and the form that various accounting summaries can take to consolidate the financial evidence in a way that is acceptable to the courts. A forensic accountant must understand the rules of evidence in court and how to investigate the beginning as if all evidence will make it to a court of law. If these rules are ignored, evidence could be compromised and found inadmissible if it does get to court.
5. **Presentation of findings:** the forensic accountant must have the ability to communicate the findings resulting from the investigation in a fashion understandable to the layperson. The presentation can be oral or written and can include the appropriate demonstrative aids. The role of forensic accountants in the witness box is the final test of the findings in a public forum. By its nature, however, accounting and financial information are difficult

for the average person to comprehend. Therefore, the forensic accountant as an expert witness must have above-average communication skills in distilling financial information in a manner that the average citizen can understand, comprehend, and assess to reach a sound conclusion.

6. **Knowledge of investigative techniques:** when the issues have been identified, further information and documentation must be acquired to obtain further evidence to assist in either supporting or refuting the allegation or claim. It is a question of knowing not only where the relevant financial documentation exists but also the intricacies of GAAP, financial statement disclosure, and systems of internal control, and being aware of t5he human element involved in frauds.
7. **Investigative:** skills forensic accountants usually apply investigative skills at the appropriate time during their investigations. For example, in dealing with criminal matters, the primary concern is to develop evidence around motive, opportunity, and benefit. Of equal concern is that the proper interpretations are given to the method of operation and the issue of economic risk, must also be addressed.
8. **Investigative:** skills are needed in litigation support. The forensic accountant must ensure that: a proper foundation exists for the calculation of future lost profits; all assumptions incorporated into the work product are recognized and identified; he understands his limitations as an expert, and the issue of mitigation of damages is considered.
9. **Identification of financial issue:** when forensic accountants are presented with a situation generated by a complaint, allegation, rumor, inquiry, or statement of claim, they must identify the financial issues significant to the matter quickly. They base their decisions on experience and knowledge, and any resulting recommendations must reflect both common sense and business reality. For example, if documents are needed from a foreign jurisdiction, although the most obvious recommendation would be to obtain these records, it is usually not practical to do so. Other alternatives must be considered.
10. **Interpretation of financial information:** it is unusual for a transaction or a series of events to have only one interpretation. The forensic accountant must be extremely conscious of a natural bias that can exist in the interpretation process. Transactions must be viewed from all aspects to ensure that the ultimate interpretation of the available information fits with common sense and the test of business reality. A proper

interpretation of information can be assured only when one has looked behind and beyond the transaction in question without any scope limitations. In particular, a forensic accountant who is called an expert witness must be aware of alternative accounting or financial formulas, rules, and interpretations.

Responsibilities of a forensic accountant in combating fraudulent activities

A forensic accountant should perform the following responsibilities as listed below:

1. Conducting investigation: Owojori and Asaolu (2009), state that the failure of the statutory audit and the sophisticated financial fraud in recent times had led to the need for a forensic audit. Thus, the forensic accountant could be said to have special tools for investigating to detect and prevent fraudulent activities thereby combating financial fraud. Zimbleman (1997), states that a forensic accountant being a fraud investigator is very much likened to a physician who requires a significant amount of diagnostic and explanatory work to discover what is happening. Given the above, it can be said that a forensic accountant goes beyond the normal audit to unveil fraudulent activities by using forensic software tools in conducting and investigating transactions and events.
2. Analyzing financial transactions: Cole (2009), states that a forensic accountant is required to have social skills in inspecting documents for authenticity, alteration. Forgery or counterfeiting. Hence, by possessing such skills, the forensic accountant in carrying out his duties can easily detect errors, fraudulent activities, and omissions thereby preventing and reducing fraudulent activities. According to Zimbleman et al. (2012, a forensic accountant is responsible for analyzing and identifying the kinds of fraud that could occur and their symptoms.
3. Reconstruction of incomplete accounting records: a forensic accountant in carrying out his function reconstructs incomplete accounting records to settle for example insurance claims, over inventory valuation, proving money laundering activities by reconstructing cash transactions (Owojori & Asaolu, 2009).
4. Embezzlement investigation: Cabole (2009), states that a forensic accountant does the following: fraud detection; documentation and presentation in criminal trails and claims; calculate economic damages; trace income and assets; reconstruction of financial statement that may have been destroyed or manipulated.

5. Expert witness; Cabole (2009) shows that a forensic accountant must be an expert in financial matters who must have legal knowledge which is to be presented in a lawsuit.

MODULE TWO: BANK STATEMENT ANALYSIS

2.1 Red flags areas in Bank Statement (Fraud prone areas)

Bank statement analysis is the analysis of the financial transactions of borrowers i.e. outflows or debits and inflows or credits over some time, based on their bank statements. Everyone has a bank statement, a universal document that contains all of their transaction histories.

It is also a proof of deposit as evidence that money has been deposited or has accumulated in a bank account. The borrower typically provides the bank or mortgage company two of the most recent bank statements in which the company will contact the borrower's bank to verify the information.

Bank Statement Analysis

Bank statement analysis is the analysis of the financial transactions of borrowers i.e. outflows or debits and inflows or credits over some time, based on their bank statements. Everyone has a bank statement, a universal document that contains all of their transaction histories. A bank statement is unequivocally the most valid record of one’s income and expenses and gives a fair view of one’s financial health. It contains their transaction history for a specified period including all sources of income, EMIs, expenditures, withdrawals, credit card payments, receipts, and interest earned.

As we know, banks are in the business of lending and borrowing. They earn interest on loans and pay interest on deposits. The difference between these two is called their net interest income or spread. Now, lending is their primary source of revenue. Therefore, banks spend a lot of their resources on assessing if a borrower is worthy, i.e. if the individual or business can repay the loan. This brings us to the question — How does a bank distinguish between worthy borrowers and the not so worthy ones? They verify credit scores, sources of income and thereby employment, and most importantly, collateral and KYC details, through stringent and comprehensive processes.

What does bank statement analysis tell us?

Bank statement analysis delves deep into bank statements and parses the data from pdf statements to derive meaningful insights about a borrower's recurring transactions, loans and defaults (if any), income and its frequency, and repayment capacity.

A large section of the world population is still without a formal credit history, and without fixed assets for collateral. This section has been deprived of credit for decades and they outnumber those with access to formal banking channels for availing loans. They are susceptible to falling prey to unorganized money lenders who give them loans at sky-high interest rates. When we checked, we found that a few money lenders were giving out loans at 7 to 10% per month, while a few payday loan providers were charging anywhere between 0.5–1% per day.

Importance of Bank Statement Analysis

1. In the case of individual borrowers, bank statement analysis help in income verification and spend analysis, i.e. gives a complete picture of their income and expenditure based on their bank account.

2. For businesses, bank statement analysis gives the cash inflows from customers' payments and cash outflows based on payments to vendors.

3. The status of customer cheques in terms of whether a cheque got cleared or bounced can be deduced from bank statement analysis.

4. It is an easy and effective method for the reconciliation of customer payments.

5. Bank statement analysis reveals events of non-payment and default or insufficient funds. This is crucial to the assessment of the creditworthiness of both individuals and businesses.

The contents of a bank statement are neither uniform nor consistent across banks. They are full of non-standard abbreviations and narrations and each bank has its format of presenting these details. For instance, if you look at the statement formats above, the account balance table has different headers or names in the different formats. The column number for account balance is different in the different formats. Some have currency mentioned right next to the balance, while some formats don't have it. In a few formats, you may note the abbreviation "Cr" which denotes crores right next to the numerals, while some have only numeric values. So, what's common between these statements? All of them belong to the same bank. So bank statement analysis isn't a simple and straightforward parsing of pdf data to excel or any other desired format.

"Red Flags" for reviewing bank statements

Financial statements provide important information about a business. Besides monetary conditions, they give insight into a company's future. From time to time, problems may develop. However, catching them early will prevent big headaches down the line. Here are the six most common red flags that may mean trouble is brewing.

The following are Ten (10) "Red Flags" for reviewing bank statements:

1. Look for unauthorized ATM withdrawals if you have employees and/or business partners with additional cards
2. Review all bank charges and don't hesitate to ask the bank to reverse these and/or negotiate the fee structure
3. Scan all debit card activity to verify authenticity and or duplicate charges
4. Watch for small amounts usually less than .25 cents hitting your statements as this could be a sign that a hacker is phishing for a live account to hit up bigger in the future
5. If you detect fraud and do not promptly report this to your bank you may lose the right to pass the liability onto the bank
6. Watch for any monthly charges coming out to ensure that amounts do not increase without authorization
7. Carefully review charges for services that you may have canceled
8. Review the sequence of cleared checks to detect any fraudulent checks possibly being presented
9. Are all deposits you made during the month actually in your account? Banks do make errors even though the error rate has dropped significantly with advances in technology
10. If you are not sure about any activity on your account, ask your bookkeeper, ask your partner, ask your bank but don't ignore it.

2.3 Heightened Inventory

It is common for a business to expand its product line, which increases inventory. However, if inventory is going up, but nothing has changed within a company's offerings, it may mean items are not selling. In many industries, the longer a product remains shelved, the bigger the risk it has of becoming obsolete or spoiling.

It is simple to spot this problem by examining the balance sheet. It is important to calculate inventory for the year by using the ending inventory number from the previous year's balance sheet. This amount is divided by the current year's sales. If the number is more than it has been in previous years, something must be done to get products moving at a swifter pace.

2.4 Mounting Receivables

Although a large account receivable figure may seem good, it is only profitable if it can be collected. In the business world, the longer an account goes without being paid, the more unlikely it is that your company will see compensation. When receivables begin to mount, it may be necessary to adjust your collections process and become stricter with your credit policies.

Patterns of Poor Cash Flow

Even though a business shows a profit on paper, it may still be cash poor. When cash does not flow into the business, investors may start to worry receivables are not being collected properly, revenue is being exaggerated, or you are struggling to pay your loans. If net cash flow is constantly low, you may suffer a cash crunch. When this happens, it is essential to identify the cause. Many times, it may be due to a slow month or similar circumstances. However, if it is due to poor collection efforts, it is advisable to communicate with your customers and push for payment.

After identifying the root of the crunch, you will have a better understanding of when cash will flow better. It means you may be required to adjust your payment schedule.

2.5 Non-Operating Income

It always looks good when your company shows consistent income from continuing operations. Investors are often leery of seeing income from the sale of fixed assets, a large one-time sale, or the sale of investments. Operating income is listed separately from non-operating income on your income statement. If you notice a definite increase from year to year, it may be necessary to target sources of revenue that are solid and steady.

High Number of "Other" Expenses

Many companies have "other" expenses that are very small or inconsistent. It is normal and is reflected in the balance sheet and income statements. However, when these items have high values, it is a definite red flag and needs to be checked. In many cases, some of these expenses can be reclassified. Other times, the high value may be a one-time occurrence.

Delving into your company's financial statements will give great insight into its overall performance and future. Knowing the basic red flags will help you identify problems and solve them efficiently before they become major. In this manner, you will get a true sense of your business's profitability, liquidity, and flow of cash.

2.6 Case Study:

Stone Gate Senior Living provides support services to senior living and care properties that offer skilled health care, assisted living, memory support, and independent living at locations in Missouri, Oklahoma, and Texas. Founded and led by a team of senior living industry veterans, Stone Gate understands that careful attention to customer expectations is vital to the success of a senior living and care community. Stone Gate Senior Living takes control of its revenue cycle by automating its Medicaid application and billing processes.

The Problem:

Many Stone Gate residents required Medicaid to pay for part or all of their stay. Admittance into one of their facilities initiated a long, multi-step application process with the government organization. With applications involving stacks of paperwork and handling by multiple staff members, the lengthy process drowned team productivity. This led to a protracted billing cycle that dramatically impacted their operational revenue.

When working with Medicaid, there are many regulatory procedures to manage and monitor. Once the Stone Gate team admits a resident into their facilities, a critical clock starts ticking. This results in a 25% reduction in accounts receivable in the first 12 months of deployment.

Skyrocketed efficiency of intake staff increased visibility into Medicaid application progress highlighted processes such as (i) Medicaid Application Process, (ii) Medicaid Appeal Process, and (iii) Medicaid Recertification Process. 2,000 cases per year with 50 organize users. They prepare and send off the Medicaid application to the state agency. If the team fails to apply within this timeframe, the government declines their reimbursement request. Stone Gate and Medicaid staff manually exchanged paperwork back and forth. Incomplete applications wilted in the system, with limited visibility into their progress. For applications marred by efficiency draining processes, Stone Gate frequently missed the 30-day window for requesting reimbursements and ended up financing the resident's stay until the time they were able to get the resident fully accepted by Medicaid. The protracted, time-consuming process caused mounting receivables and undue balance sheet stress for the CFO. Delayed applications mounted, translating into a deluge of daily financial losses. The Solution Stone Gate turned to Process Maker for a much-needed solution.

The Process Maker professional services team custom built and deployed the brand new workflow system in three months with a 100% remote engagement. Using unique integrations and tailored customizations by Process Maker, Stone Gate was finally able to streamline their Medicaid application and re-certification processes.

The Value Created the Medicaid application process often requires the hands-on attention of a minimum of five Stone Gate staff members which are the (i) Business Office Manager (ii) Case Worker (iii) Payor Navigation Agent (Runner) (iv) Payor Navigation Manager, and (v) Director of Navigation Instead of gathering information via paper forms, and manually running forms between departments, Process Maker helped implement new tools to automate the process.

Online forms eased the initial application, enabling smooth collaboration between residents or family with Stone Gate staff. Personnel could easily attach digital documents if necessary, establishing an online repository anyone within the workflow could access. Any missing information was immediately flagged. Automated workflows distributed applications up the ladder to the next step in the approval process. Every staff member had full visibility into the progress of the application, eliminating the costly issue of languishing applications.

Process Maker not only increased team productivity and cooperation but improved overall visibility for the entire organization. New powerhouse workflows resulted in a 25% reduction in accounts receivables in the first 12 months of deployment, securing Stone Gate’s revenue flow and allowing them to provide a new level of customer service for their residents.

2.7 Disposal of Fixed Assets

It is acceptable to sell old equipment that is not being utilized or that has stopped performing effectively. However, the proceeds should never be used to pay down debt or be put toward short-term expenses. When this occurs, it may cause problems for the company's future operating expenses. To make sure gains, losses, and disposals are being used correctly, it is wise to examine your income and balance sheets.

Disposal is a generic term; you may sell it, trade it in on a new one, give it away, salvage it for scrap value, or take it to a recycling center. Disposing of a fixed asset can be undone. Fixed Assets can be partially disposed of through Historic Purchase or Historic Depreciation using a negative dollar value.

The asset disposal may be as a result of several events: An asset is fully depreciated and must be disposed predicated and must be disposed of an asset is sold because it is no longer useful or needed. Asset disposal is the removal of a long-term asset from the company’s accounting records. It is an important concept because capital assets are essential to successful business operations. Moreover, proper accounting of the disposal of an asset is critical to maintaining updated and clean accounting records.

The asset disposal may be a result of several events:

1. An asset is fully depreciated and must be disposed of.
2. An asset is sold because it is no longer useful or needed.
3. An asset must be removed from the books due to unforeseen circumstances (e.g., theft)

Disposal of fixed assets is accounted for by removing the cost of the asset and any related accumulated depreciation and accumulated impairment losses from the balance sheet, recording receipt of cash, and recognizing any resulting gain or loss in the income statement.

A company may need to de-recognize a fixed asset either upon the sale of the asset to another party or when the asset is no longer operational and is disposed of. At the time of disposal of any of its fixed assets, a company must update the asset's book value by recording any partial-year depreciation associated with the disposal year. It is because whether a gain or loss arises on disposal depends on whether the cash proceeds (if any) from the sale are higher than the carrying amount of the asset at the time of disposal. The following equation lists the relationship between an asset's cash proceeds, its cost, and accumulated depreciation:

Gain/(Loss) on Disposal = Sale Proceeds - Carrying Amount = Sale Proceeds - (Cost - Accumulated Depreciation - Accumulated Impairment Losses) If the result is positive, it represents a gain on disposal; and if it is negative, it shows a loss on disposal.

Cash inflows from the disposal of fixed assets are reflected in the cash flows from investing activities section of the statement of cash flows.

2.8 Non-Operating Income

Non-operating income is the portion of an organization's income that is derived from activities not related to its core business operations. It can include items such as dividend income, profits, or losses from investments, as well as gains or losses incurred by foreign exchange and asset write-downs Non-operating income is also referred to as incidental or peripheral income.

Key Takeaways

1. Non-operating income is the portion of an organization's income that is derived from activities not related to its core business operations.

2. It can include dividend income, profits or losses from investments, as well as gains or losses incurred by foreign exchange and asset write-downs.
3. Separating non-operating income from operating income gives investors a clearer picture of how efficient a company is at turning revenue into profit.

Understanding Non-Operating Income

Earnings are perhaps the single most studied number in a company's financial statements because they show profitability compared with analyst estimates and company guidance.

The problem is that profit in an accounting period can be skewed by things that have little to do with the everyday running of the business. For example, there are occasions when a company earns a significant, one-off amount of income from investment securities, a wholly-owned subsidiary, or the sale of a large piece of equipment, property, or land.

These types of gains—on top of income earned from recurring events outside of the business' main line of work—can significantly alter a company's earnings and make it difficult for investors to measure how well the firm's operations fared during the reported period.

Non-Operating Income vs. Operating Income

Differentiating what income was generated from the day-to-day business operations and what income was made from other avenues is important to evaluate a company's real performance. That is why firms are required to disclose non-operating income separately from operating income.

Operating income is an accounting figure that measures the amount of profit realized from a business's operations, after deducting operating expenses such as wages, depreciation, and cost of goods sold (COGS). In short, it provides information to interested parties about how much revenue was turned into profit through the company's normal and ongoing business activities.

Operating income is recorded on the income statement. Toward the bottom of the income statement, under the operating income line, non-operating income should appear, helping investors to distinguish between the two and recognize what income came from where.

Example of Non-Operating Income

The main operations of retail stores are the purchasing and selling of merchandise, which requires a lot of cash on hand and liquid assets. Sometimes, a retailer chooses to invest its idle cash on hand to put its money to work.

If a retail store invests $10,000 in the stock market, and in one month earns 5% in capital gains, the N500 (N10,000 * 0.05) would be considered non-operating income. When a person sets out to analyze this retail company, the $500 would be discounted as earnings, because it can't be relied on as continuous income over the long term.

Alternatively, if a technology company sells or spins off one of its divisions for $400 million in cash and stock, the proceeds from the sale are considered non-operating income. If the technology company earns $1 billion in income in a year, it's easy to see that the additional $400 million will increase company earnings by 40%.

To an investor, a sharp bump in earnings like this makes the company look like a very attractive investment. However, since the sale cannot be replicated or duplicated, it can't be considered operating income and should be removed from performance analysis.

Special Considerations

Sometimes companies try to conceal poor operating profit with high, non-operating income. Beware of management teams attempting to flag metrics that incorporate inflated, separate gains. Earnings before interest and taxes (EBIT) for example, includes the income derived from activities not related to the core business and can often be advertised heavily by companies to mask underwhelming operational results.

Often a sharp spike in earnings from one period to the next will be caused by non-operating income. Seek to get to the bottom of where money was generated and to ascertain how much of it, if any, is linked to the everyday running of the business and is likely to be repeated.

Operating income can help here, but not always. Unfortunately, crafty accountants occasionally find ways to record non-operating transactions as operating income to dress up profitability in income statements.

Financial Statement Manipulation: How to Spot the Signs When Considering a Stock

i. Reasons for Manipulation
ii. How Statements Are Manipulated
iii. Specific Methods
iv. Corporate Merger or Acquisition
v. Guarding Against Manipulation
vi. Sarbanes-Oxley Regulation
vii. The Bottom Line

Financial statement manipulation is a type of accounting fraud that remains an ongoing problem in corporate America. Although the Securities and Exchange Commission (SEC) has taken many steps to mitigate this type of corporate malfeasance, the structure of management incentives, the enormous latitude afforded by the Generally Accepted Accounting Principles (GAAP) and the ever-present conflict of interest between the independent auditor and the corporate client continues to provide the perfect environment for such activity.

Due to these factors, investors who purchase individual stocks or bonds must be aware of the issues, warning signs, and the tools that are at their disposal to mitigate the adverse implications of these problems.

KEYNOTES:

a. The manipulation of financial statements to commit fraud against investors or skirt regulation is a real and ongoing problem, costing billions of dollars each year.
b. Managers may also "cook the books" to qualify for certain executive compensation that relies on certain financial performance metrics being met.
c. Because generally accepted accounting standards can be flexible and open for interpretation by a company's management, fudging numbers can be difficult to detect.

How Financial Statements Are Manipulated

Reasons behind Financial Statement Manipulation

There are three primary reasons why management manipulates financial statements. First, in many cases, the compensation of corporate executives is directly tied to the financial performance of the company. As a result, they have a direct incentive to paint a rosy picture of the company's financial condition to meet established performance expectations and bolster their compensation.

Second, it is a relatively easy thing to do. The Financial Accounting Standards Board (FASB), which sets the GAAP standards, provides a significant amount of latitude and interpretation in accounting provisions and methods. For better or worse, these GAAP standards afford a significant amount of flexibility, making it feasible for corporate management to paint a particular picture of the financial condition of the company.

Third, it is unlikely that financial manipulation will be detected by investors due to the relationship between the independent auditor and the corporate client. In the U.S., the Big Four accounting firms and a host of smaller regional accounting firms dominate the corporate auditing environment. While these entities are touted as independent auditors, the firms have a direct conflict of interest because they are compensated, often quite significantly, by the very companies that they audit. As a result, the auditors could be tempted to bend the accounting rules to portray the financial condition of the company in a manner that will keep the client happy – and keep its business.

2.9 How Financial Statements Are Manipulated

There are two general approaches to manipulating financial statements. The first is to exaggerate current period earnings on the income statement by artificially inflating revenue and gains, or by deflating current period expenses. This approach makes the financial condition of the company look better than it is to meet established expectations.

The second approach requires the exact opposite tactic, which is to minimize current period earnings on the income statement by deflating revenue or by inflating current period expenses. It may seem counterintuitive to make the financial condition of a company look worse than it is, but there are many reasons to do so: to dissuade potential acquirers; getting all of the bad news "out of the way" so that the company will look stronger going forward; dumping the grim numbers into a period when the poor performance can be attributed to the current macroeconomic environment, or to postpone good financial information to a future period when it is more likely to be recognized.

Specific Ways to Manipulate Financial Statements

When it comes to manipulation, there are hosts of accounting techniques that are at a company's disposal. *Financial Shenanigans* (2002) by Howard Schilit outlines seven primary ways in which corporate management manipulates the financial statements of a company.

1. **Recording Revenue Prematurely or of Questionable Quality**
    a. Recording revenue before completing all services
    b. Recording revenue before product shipment
    c. Recording revenue for products that are not required to be purchased

2. **Recording Fictitious Revenue**
    a. Recording revenue for sales that did not take place
    b. Recording investment income as revenue
    c. Recording proceeds received through a loan as revenue

3. **Increasing Income with One-Time Gains**
    a. Increasing profits by selling assets and recording the proceeds as revenue
    b. Increasing profits by classifying investment income or gains as revenue

4. **Shifting Current Expenses to an Earlier or Later Period**
    a. Amortizing costs too slowly
    b. Changing accounting standards to foster manipulation
    c. Capitalizing normal operating costs to reduce expenses by moving them from the income statement to the balance sheet
    d. Failing to write down or write off impaired assets

5. **Failing to Record or Improperly Reducing Liabilities**
    a. Failing to record expenses and liabilities when future services remain
    b. Changing accounting assumptions to foster manipulation

6. **Shifting Current Revenue to a Later Period**
    a. Creating a rainy day reserve as a revenue source to bolster future performance
    b. Holding back revenue

7. **Shifting Future Expenses to the Current Period as a Special Charge**
    a. Accelerating expenses into the current period
    b. Changing accounting standards to foster manipulation, particularly through provisions for depreciation, amortization, and depletion

While most of these techniques pertain to the manipulation of the income statement, there are also many techniques available to manipulate the balance sheet, as well as the statement of cash flows. Moreover, even the semantics of the management discussion and analysis section of the financials can be manipulated by softening the action language used by corporate executives from "will" to "might," "probably" to "possibly," and "therefore" to "maybe." Taken collectively, investors should understand these issues and nuances and remain on guard when assessing a company's financial condition

2.10 Forensic Presentation of Bank Statements

A forensic audit is an examination of a company's financial records to derive evidence that can be used in a court of law or legal proceeding.

In a forensic audit, while investigating fraud, an auditor would look out for:

1. Conflicts of interest – When a fraudster uses his/her influence for personal gains detrimental to the company. For example, if a manager allows and approves inaccurate expenses of an employee with whom he has personal relations. Even though the manager did not directly financially benefit from this approval, he is deemed likely to receive personal benefits after making such inappropriate approvals.

2. Bribery – As the name suggests, offering money to get things done or influence a situation in one's favor is bribery.
3. Extortion – If an individual demands money to award a contract to him, then that would amount to extortion.

Asset misappropriation

Asset misappropriation is the most common and prevalent form of fraud. Misappropriation of cash, creating fake invoices, payments made to non-existing suppliers or employees, misuse of assets, or theft of Inventory are a few examples of such asset misappropriation.

Financial statement fraud

Companies get into this type of fraud to try to show the company's financial performance as better than what it is. The goal of presenting fraudulent numbers may be to improve liquidity, ensure top management continues receiving bonuses or deal with pressure for market performance.

Some examples of the form that financial statement fraud takes are the intentional forgery of accounting records, omitting transactions – either revenue or expenses, non-disclosure of relevant details from the financial statements, or not applying the requisite financial reporting standards.

Procedure for a forensic audit investigation

A forensic auditor is required to have special training in forensic audit techniques and the legalities of accounting issues.

A forensic audit includes additional steps that need to be performed in addition to regular audit procedures.

1. Plan the investigation

When the client hires a forensic auditor, the auditor is required to understand what the focus of the audit is. For example, the client might be suspicious about possible fraud in terms of the quality of raw materials supplied. The forensic auditor will plan their investigation to achieve objectives such as:

a. Identify what fraud, if any, is being carried out
b. Determine the period during which the fraud has occurred
c. Discover how the fraud was concealed
d. Identify the perpetrators of the fraud
e. Quantify the loss suffered due to the fraud
f. Gather relevant evidence that is admissible in the court
g. Suggest measures that can prevent such frauds in the company in future

2. Collect evidence

By the conclusion of the audit, the forensic auditor is required to understand the possible type of fraud that has been carried out and how it has been committed. The evidence collected should be adequate to prove the identity of the fraudster(s) in court, reveal the details of the fraud scheme, and document the amount of financial loss suffered and the parties affected by the fraud.

A logical flow of evidence will help the court in understanding the fraud and the evidence presented. Forensic auditors are required to take precautions to ensure that documents and other evidence collected are not damaged or altered by anyone.

Common techniques used for collecting evidence in a forensic audit include the following:

a. Substantive techniques – For example, doing a reconciliation, review of documents, etc
b. Analytical procedures – Used to compare trends over a certain period or to get comparative data from different segments
c. Computer-assisted audit techniques – Computer software programs that can be used to identify fraud
d. Understanding internal controls and testing them to understand the loopholes which allowed the fraud to be perpetrated.

3. Interview the suspect(s)

Reporting – A report is required so that it can be presented to a client about the fraud. The report should include the findings of the investigation, a summary of the evidence, an explanation of how the fraud was perpetrated, and suggestions on how internal controls can be improved to prevent such frauds in the future. The report needs to be presented to a client so that they can proceed to file a legal case if they so desire.

Court proceedings – The forensic auditor needs to be present during court proceedings to explain the evidence collected and how the suspect was identified. They should simplify the complex accounting issues and explain in layman's language so that people who have no understanding of the accounting terms can still understand the fraud that was carried out.

To summarize, a forensic audit is a detailed engagement that requires the expertise of not only accounting and auditing procedures but also expert knowledge regarding the legal framework. A forensic auditor is required to have an understanding of various frauds that can be carried out and of how evidence needs to be collected.

Fraud Auditor: Required Knowledge, Skills, and Abilities

Fraud auditing focuses on creating an environment that encourages the detection, prevention, and correction of intended or executed fraud. Ability comes from insight, knowledge, and experience in viewing fraud as an economic, social, and organizational phenomenon. Fraud auditors should know the aspects of the common body of knowledge regarding fraud. That knowledge includes fraud schemes, red flags and the ones associated with specific frauds, the fraud investigation, legal aspects of fraud (especially evidence), fraud professional organizations, fraud certifications, behavioral characteristics of white-collar criminals, and so on. The fraud auditor, of course, needs to be able to apply that knowledge in the fraud environment.

The personal attributes of fraud auditors include self-confidence, persistence, commitment to honesty and fair play, creativity, curiosity, an instinct for what is out of place or what is out of balance, independence, objectivity, good posture, and grooming (for courtroom testimony), clear communication sensitivity to human behavior, common sense, and ability to fir pieces of a puzzle together without force or contrivance. Inevitably, accounting and investigative (legal) skills cross over and are inextricably tied together in the context of a forensic audit. In some ways, when separated they demonstrate different abilities. As for accounting skills, an effective fraud auditor should be to do the following competently:

a. Establish accounting, audit, and internal control (when, where, and how fraud is most likely to occur in books of account and financial statements).
b. Conduct a review of internal controls
c. Assess the strengths and weaknesses of those controls
d. Design scenarios of potential fraud losses based on identified weaknesses in internal controls.
e. Know how to identify questionable and exceptional transactions (too high, too low, often, too rare, too much, too little, odd times, odd places, odd/people).
f. Identify questionable and exceptional account balances and variations.
g. Distinguish between simple human errors and omissions in entries and fraudulent entries (international error, such as recurring small errors versus unintentional random error and ignorance).
h. Know how to follow the flow of documents that support transactions.
i. Follow the flow of funds in and out of an organization's account.
j. Search for underlying support documents for questionable transactions.
k. Review such documents for peculiarities like fake billings, destruction of data, improper account

Financial Audit against Fraud Audit

The general public believes that a financial auditor would detect a fraud if one were being perpetrated during the financial auditor’s audit. The truth, however, is that the procedures for financial audits are designed to detect material misstatements, not immaterial frauds. While it is true that many of the financial statements and frauds could have, perhaps should have, been detected by financial auditors, the clear majority of frauds could not be detected with the Generally Accepted Auditing Standards (GAAS) of financial audits. Reasons include the dependence of financial auditors on a sample and the auditor’s reliance on examining the audit trail versus examining the events and activities behind the documents. The latter is simply resource prohibitive in terms of costs and time.

There are some basic differences between the procedures of fraud auditors and those of financial auditors. Fraud auditors look behind and beyond the transactions and audit trail to focus on the substance of the transactions instead. The fraud auditor does not question how the accounting system and internal controls stack up against applicable standards but rather:

a. Where are the weakest links in this system's chain of controls?

b. What are deviations from conventional good accounting practices possible in this system?

c. How are off-line transactions handled, and who can authorize such transactions?

d. What would be the simplest way to compromise this system?

e. Can control features in this system be bypassed by higher authorities?

Distinctions of Forensic Accounting, Fraud Auditing, and Investigative Auditing From Financial Auditing

1. The distinction is related to one’s goals. Financial auditing attempts to enable the auditor to render an opinion as to whether a set of statements upon which the opinion is rendered are always the representations of management. The auditor is primarily concerned with qualitative value (hence the concept of materiality comes into play) and generally is not concerned about whether the financial statements communicate the policies, intentions, or goals of management.

2. Forensic accounting is a general term used to describe any financial investigation that can result in a legal consequence. Fraud auditing is a specialized discipline within forensic accounting, which investigates a particular criminal activity known as fraud. Investigative auditing involves reviewing financial documentation for a specific purpose, which could relate to litigation support and insurance claims as well as criminal matters.

3. The objective of financial auditing is to provide the auditor with a degree of assurance in giving an opinion concerning a company’s financial statements. The materiality level of

an investigative auditing engagement is much lower and more focused than that of the normal financial auditing engagement.

Financial statement fraud

This is also known as fraudulent financial reporting and is a type of fraud that causes a material misstatement in the financial statements. It can include deliberate falsification of accounting records; omission of transactions, balances, or disclosures from the financial statements; or the misapplication of financial reporting standards. This is often carried out to present the financial statements with a particular bias, for example concealing liabilities to improve any analysis of liquidity and gearing.

CONDUCTING AN INVESTIGATION

The process of conducting a forensic investigation is, in many ways, similar to the process of conducting an audit, but with some additional considerations. The various stages are briefly described below.

Accepting the Investigation

The forensic accountant must initially consider whether their firm has the necessary skills and experience to accept the work. Forensic investigations are specialist in nature, and the work requires detailed knowledge of fraud investigation techniques and the legal framework. Investigators must also have received training in interview and interrogation techniques, and in how to maintain the safe custody of evidence gathered.

Additional considerations include whether or not the investigation is being requested by an audit client. If it is, this poses extra ethical questions, as the investigating firm would be potentially exposed to self-review, advocacy, and manage threats to objectivity. Unless robust safeguards are put in place, the firm should not provide audit and forensic investigation services to the same client. Commercial considerations are also important, and a high fee level should be negotiated to compensate for the specialist nature of the work and the likely involvement of senior and experienced members of the firm in the investigation.

Planning the investigation:

The investigating team must carefully consider what they have been asked to achieve and plan their work accordingly. The objectives of the investigation will include:

a. identifying the type of fraud that has been operating, how long it has been operating for, and how the fraud has been concealed;

b. identifying the fraudster(s) involved;

c. quantifying the financial loss suffered by the client;

d. gathering evidence to be used in court proceedings; and

e. providing advice to prevent the reoccurrence of the fraud.

The investigators should also consider the best way to gather evidence – the use of computer-assisted audit techniques, for example, is very common in fraud investigations.

Gathering Evidence:

To gather detailed evidence, the investigator must understand the specific type of fraud that has been carried out, and how the fraud has been committed. The evidence should be sufficient to ultimately prove the identity of the fraudster(s), the mechanics of the fraud scheme, and the amount of financial loss suffered. The investigating team must be skilled in collecting evidence that can be used in a court case, and in keeping a clear chain of custody until the evidence is presented in court. If any evidence is inconclusive or there are gaps in the chain of custody, then the evidence may be challenged in court, or even become inadmissible. Investigators must be alert to documents being falsified, damaged, or destroyed by the suspect(s).

Evidence can be gathered using various techniques, such as:

a. testing controls to gather evidence that identifies the weaknesses, which allowed the fraud to be perpetrated;
b. using analytical procedures to compare trends over time or to provide comparatives between different segments of the business;

c. applying computer-assisted audit techniques, for example, to identify the timing and location of relevant details being altered in the computer system;
d. discussions and interviews with employees; and
e. substantive techniques such as reconciliations, cash counts, and reviews of documentation.

The ultimate goal of the forensic investigation team is to obtain a confession by the fraudster if fraud did occur. For this reason, the investigators are likely to avoid deliberately confronting the alleged fraudster(s) until they have gathered sufficient evidence to extract a confession. The interview with the suspect is a crucial part of the evidence gathered during the investigation.

Reporting

The client will expect a report containing the findings of the investigation, including a summary of evidence and a conclusion as to the amount of loss suffered as a result of the fraud. The report will also discuss how the fraudster set up the fraud scheme, and which controls, if any, were circumvented. It is also likely that the investigative team will recommend improvements to controls within the organisation to prevent any similar frauds from occurring in the future.

Court proceedings:

The investigation is likely to lead to legal proceedings against the suspect, and members of the investigative team will probably be involved in any resultant court case. The evidence gathered during the investigation will be presented at court, and team members may be called to court to describe the evidence they have gathered and to explain how the suspect was identified. It is imperative that the members of the investigative team can present their evidence clearly and professionally, as they may have to simplify complex accounting issues so that non-accountants involved in the court case can understand the evidence and its implications.

CONCLUSION

In summary, a forensic investigation is a very specialist type of engagement, which requires highly skilled team members who have experience not only in accounting and auditing techniques but also of the relevant legal framework.

There are numerous different types of fraud that a forensic accountant could be asked to investigate. The investigation is likely to ultimately lead to legal proceedings against one or several suspects, and members of the investigative team must be comfortable with appearing in court to explain how the investigation was conducted, and how the evidence has been gathered. Forensic accountants must therefore receive specialist training in such matters to ensure that their credibility and professionalism cannot be undermined during the legal process.

Financial Auditors

The term financial auditors broadly apply to any auditor of financial information or the financial reporting process. The largest classification of financial auditors is those who work for public accountant firms and perform audits of financial statements for public companies. Financial statement for public companies; financial auditors have expertise in their knowledge of accounting and financial reporting (such as in generally accepted accounting principles [GAAP], PCAOB standards, or international financial audit standards [IFRS], auditing (generally accepted audit standards [GAAS]), and how those standards apply to business transactions. As expressed in the GAAS literature, the most important financial auditing attributes are independence objectivity and professional skepticism.

Financial auditors traditionally have been seen as, and to an extent have been, numbers-oriented, and their processes have been driven by the audit trail. The financial audit procedures are designed to detect material misstatements, and thus financial auditors focus on misstatements that singularly or in the aggregate are large enough to be material. Fraud auditors and forensic accountants are not constrained by materiality. The discipline of financial auditing and has progressively increased in the direction of more dependence on auditor judgment. SOX requirements involve auditor judgment to a large degree; auditors are to understand processes significant to financial reporting and to evaluate management's controls over those processes. Additionally, auditors are to consider environmental, including soft, intangible, factors in that evaluation.

Fraud Auditors

Fraud auditors are generally accountants or auditors, who, by their attitudes, attributes, skills, knowledge, and experience, are experts at detecting and documenting frauds in books of records of accounting and financial transactions and events.

Their attitudes include these beliefs:

a. Fraud is possible even in accounting systems that have tight controls
b. The visible part of a transaction fraud may involve a small amount of money, but the invisible portion can be substantial.
c. Red flags of fraud are discernible if one looks long enough and deep enough.
d. Fraud perpetrators can come from any level of management or society.

The skills fraud auditors require to include all of those that are required of financial auditors, plus the knowledge of how to gather evidence of and document fraud losses for criminal, civil, contractual, and insurance purposes; how to interview third-party witnesses; and how to testify as an expert witness.

Fraud auditors must know what a fraud is from a legal and audit perspective, an environmental perspective, a perpetrator's perspective, and a cultural perspective. They also need both general and specific kinds of experience. They should have a fair amount of experience in general auditing and fraud auditing but should have industry-specific experience as well (e.g, banking; insurance; construction; and manufacturing, distribution, and retailing).

Fraud auditing is creating an environment that encourages the detection and prevention of fraud in commercial transactions. In the broadest sense, it is an awareness of many components of fraud, such as the human element, organizational behavior, knowledge of fraud, evidence and standards of proof, an awareness of the potentiality for fraud, and an appreciation of the red flags. In short, fraud auditing is the process of detecting, preventing, and correcting fraudulent activities.

While eliminating fraud is the goal, it is simply not feasible. The concept of reasonableness is applicable here, and this concept is often associated with the fraud-related fields of financial accounting and auditing. Fraud auditors should be able to thwart a reasonably preventable fraud.

Fraud is usually accompanied by the modification, alteration, destruction, or counterfeiting of accounting evidence. But accounting records can be either intentionally or accidentally modified, altered, or destroyed, by human error or omission. The first objective for the fraud auditor then is to determine whether a discrepancy in accounting records is attributable to human error. If it is, there may be no actual fraud. If the discrepancy (missing records, destroyed records, modified records, counterfeit records, errors, and omissions) cannot be attributed to accidental or human error, further investigation should follow at an appropriate level.

Just as forensic accountant services are needed by a variety of groups, fraud audits also have several groups who could potentially benefit from their services, although it is somewhat less in scope than forensic accountants. The scope is less because fraud audits involve only a limited phase of the fraud cycle.

The need for fraud-auditing talent is not related solely to comply with new government regulations. In the private sector, fraud-auditing skills are also useful in most cases of financial crime, such as embezzlement; misrepresentations of financial facts; arson for profit; bankruptcy fraud; investment frauds of all manner and description; bank fraud; kickbacks and commercial bribery; fraud; and scams and shams by vendors, suppliers, contractors, and customers. In the United States, the largest body of trained and experienced fraud auditors comes from government audit and investigative agencies like the Internal Revenue Service (IRS), FBI, Government Accounting Office (GAO), and the SEC. Police authorities on the state and local levels have few audit resources at their disposal; consequently, their ability to investigate certain white-collar crimes is limited. There is a need for fraud auditing in both public and private sectors of the economy.

Public accounting firms and other organizations in the private sector are developing fraud audit expertise. Although relatively few public accountants and internal auditors are specifically trained and experienced in this discipline, their numbers are rapidly increasing.

Fraud Auditor: Required Knowledge, Skills, and Abilities

Fraud auditing focuses on creating an environment that encourages the detection, prevention, and correction of intended or executed fraud. Ability comes from insight, knowledge, and experience in viewing fraud as an economic, social, and organizational phenomenon. Fraud auditors should know the aspects of the common body of knowledge regarding fraud. That knowledge includes fraud schemes, red flags and the ones associated with specific frauds, the fraud investigation, legal aspects of fraud (especially evidence), fraud professional organizations, fraud certifications, behavioral characteristics of white-collar criminals, and so on. The fraud auditor, of course, needs to be able to apply that knowledge in the fraud environment.

The personal attributes of fraud auditors include self-confidence, persistence, commitment to honesty and fair play, creativity, curiosity, an instinct for what is out of place or what is out of balance, independence, objectivity, good posture, and grooming (for courtroom testimony), clear communication sensitivity to human behavior, common sense, and ability to fir pieces of a puzzle together without force or contrivance. Inevitably, accounting and investigative (legal) skills cross over and are inextricably tied together in the context of a forensic audit. In some ways, when separated they demonstrate different abilities. As for accounting skills, an effective fraud auditor should be to do the following competently:

i. Establish accounting, audit, and internal control (when, where, and how fraud is most likely to occur in books of account and financial statements).
ii. Conduct a review of internal controls
iii. Assess the strengths and weaknesses of those controls
iv. Design scenarios of potential fraud losses based on identified weaknesses in internal controls.
v. Know how to identify questionable and exceptional transactions (too high, too low, often, too rare, too much, too little, odd times, odd places, odd/people).
vi. Identify questionable and exceptional account balances and variations.
vii. Distinguish between simple human errors and omissions in entries and fraudulent entries (international error, such as recurring small errors versus unintentional random error and ignorance).

viii. Know how to follow the flow of documents that support transactions.

ix. Follow the flow of funds in and out of an organization's account. Search for underlying support documents for questionable transactions.

x. Review such documents for peculiarities like fake billings, destruction of data, improper account

MODULE THREE: NET-WORTH ANALYSIS (INTERNATIONAL PRACTICE)

Introduction: Net-Worth Analysis

Net worth is the value of the assets a person or corporation owns, minus the liabilities they owe. It is an important metric to gauge a company's health, providing a useful snapshot of its current financial position. Basic areas:

i. Net worth is a quantitative concept that measures the value of an entity and can apply to individuals, corporations, sectors, and even countries.
ii. Net worth provides a snapshot of an entity's current financial position.
iii. In business, net worth is also known as book value or shareholders' equity.
iv. People with substantial net worth are called high-net-worth individuals (HNWI).

Understanding Net Worth

Net worth is calculated by subtracting all liabilities from assets. An asset is anything owned that has monetary value, while liabilities are obligations that deplete resources, such as loans, accounts payable (AP), and mortgages.

Net worth can be described as either positive or negative, with the former meaning that assets exceed liabilities and the latter that liabilities exceed assets. Positive and increasing net worth indicates good financial health. Decreasing net worth, on the other hand, is cause for concern as it might signal a decrease in assets relative to liabilities.

The best way to improve net worth is to either reduce liabilities while assets stay constant or rise, or increase assets while liabilities either stay constant or fall.

Types of Net Worth

Net worth can be applied to individuals, companies, sectors, and even countries.

Net Worth in Business

In business, net worth is also known as book value or shareholders' equity. The balance sheet is also known as a net worth statement. The value of a company's equity equals the difference between the value of total assets and total liabilities. Note that the values on a company's balance sheet highlight historical costs or book values, not current market values.

Lenders scrutinize a business's net worth to determine if it is financially healthy. If total liabilities exceed total assets, a creditor may not be too confident in a company's ability to repay its loans.

A consistently profitable company will register a rising net worth or book value as long as these earnings are not fully distributed to shareholders as dividends. For a public company, a rising book value will often be accompanied by an increase in the value of its stock price.

Net Worth in Personal Finance

An individual's net worth is simply the value that is left after subtracting liabilities from assets. Examples of liabilities, otherwise known as debt, including mortgages, credit card balances, student loans, and car loans. An individual's assets, meanwhile, include checking and savings account balances, the value of securities such as stocks or bonds, real property value, the market value of an automobile, et al. Whatever is left after selling all assets and paying off personal debt is the net worth.

Note that the value of personal net worth includes the current market value of assets and the current debt costs. People with a substantial net worth are known as high net worth individuals (HNWI), and form the prime market for wealth managers and investment counselors. Investors with a net worth, excluding their primary residence, of at least #1 million—either alone or together with their spouse—are "accredited investors" in the eyes of the Securities and Exchange Commission (SEC), and, therefore, permitted to invest in unregistered securities offerings.

Net Worth Example

Consider a couple with the following assets:

i. primary residence valued at #250,000,
ii. an investment portfolio with a market value of #100,000,
iii. automobiles and other assets valued at #25,000.

Liabilities include:

i. an outstanding mortgage balance of #100,000
ii. a car loan of #10,000

The couple's net worth would, therefore, be calculated as:

[#250,000 + #100,000 + #25,000] - [#100,000 + #10,000] = #265,000

Assume that five years later, the couple's financial position changes: the residence value is #225,000, investment portfolio #120,000, savings #20,000, automobile and other assets $15,000; mortgage loan balance #80,000, and car loan #0 because it was paid off. Based on these new figures, the net worth five years later would be:

[#225,000 + #120,000 + #20,000 + #15,000] - #80,000 = #300,000.

The couple's net worth has gone up by #35,000, despite the decrease in the value of their residence and car. As we can see above, these declines were more than offset by increases in other assets, in this case, the investment portfolio and savings, as well as a drop in liabilities owed.

To calculate your net worth, use our free Net Worth Tracker, which allows you to calculate, analyze, and record your net worth for free.

Special Considerations: Negative Net Worth

A negative net worth results if total debt is more than total assets. For instance, if the sum of an individual's credit card bills, utility bills, outstanding mortgage payments, auto loan bills, and student loans is higher than the total value of their cash and investments, net worth will be negative.

3.1 Bank Based Model

A company's most important goal is to make money and keep it, which depends on liquidity and efficiency. Because these characteristics determine a company's ability to pay investors a dividend, profitability is reflected in the share price. Investors should know how to analyze various facets of profitability, including how efficiently a company uses its resources and how much income it generates from operations. Knowing how to calculate and analyze a corporate profit margin is a great way to gain insight into how well a company generates and retains money. Key Notes:

i. Investors who know how to calculate and analyze a corporate profit margin gain insight into a company's current effectiveness in generating profits and its potential to generate future profits.
ii. The three key profit-margin ratios investors should analyze when evaluating a company are gross profit margins, operating profit margins, and net profit margins.
iii. Companies with large profit margins frequently have a competitive advantage over other companies in their industry.
iv. Understanding a company's margin ratios can be a starting point for further analysis to decide if a company would be a good investment option.

Analyzing Corporate Profit Margins Using Profit-Margin Ratios

It's tempting to rely on net earnings alone to gauge profitability, but it doesn't always provide a clear picture of a company. Using it as the sole measure of profitability can be a bad idea.

Profit-margin ratios, on the other hand, can give investors deeper insight into management efficiency. But instead of measuring how much a company earns from assets, equity, or invested capital, these ratios measure how much money a company squeezes from its total revenue or total sales.

Margins are earnings expressed as a ratio or a percentage of sales. A percentage allows investors to compare the profitability of different companies, while net earnings, which are presented as an absolute number, don't.

There are three key profit-margin ratios: gross profit margins, operating profit margins, and net profit margins.

Gross Profit Margin

The gross profit margin tells us how much profit a company makes on its cost of sales, or cost of goods sold (COGS). In other words, it indicates how efficiently management uses labor and supplies in the production process. This is the formula:

Gross Profit Margin = (Sales - Cost of Goods Sold)/Sales

Suppose that a company has #1 million in sales and the cost of its labor and materials amounts to #600,000. Its gross margin rate would be 40% (#1 million - #600,000/#1 million).

Companies with high gross margins will have money left over to spend on other business operations, such as research and development or marketing. When analyzing corporate profit margins, look for downward trends in the gross margin rate over time. This is a telltale sign the company may have future problems with its bottom line.

For example, companies frequently are faced with rapidly increasing labor and materials costs. Unless the company can pass these costs onto customers in the form of higher prices, these costs could lower the company's gross profit margins.

It's important to remember that gross profit margins can vary drastically from business to business and from industry to industry. The airline industry has a gross margin of about 5%, while the software industry has a gross margin of about 90%.[1]

Operating Profit Margin

By comparing earnings before interest and taxes (EBIT) to sales, operating profit margins show how successful a company's management has been at generating income from the operation of the business. This is the calculation:

Operating Profit Margin = EBIT/Sales

If EBIT amounted to #200,000 and sales equaled #1 million, the operating profit margin would be 20%.

This ratio is a rough measure of the operating leverage a company can achieve in the operational part of its business. It indicates how much EBIT is generated per dollar of sales. High operating profits can mean the company has effective control of costs, or that sales are increasing faster than operating costs.

Knowing operating profit also allows an investor to do profit-margin comparisons between companies that do not issue a separate disclosure of their cost of goods sold figures.

Operating profit measures how much cash the business throws off, and some consider it a more reliable measure of profitability since it is harder to manipulate with accounting tricks than net earnings.

Naturally, because the operating profit margin accounts for administration and selling costs as well as materials and labor, it should be a much smaller figure than the gross margin.

Net Profit Margin

Net profit margins are those generated from all phases of a business, including taxes. In other words, this ratio compares net income with sales. It comes as close as possible to summing-up in a single figure how effectively the managers are running a business:

Net Profit Margins = Net Profits after Taxes/Sales

If a company generates after-tax earnings of #100,000 on #1 million of sales, then its net margin amounts to 10%.

To be comparable from company to company and from year to year, net profits after tax must be shown before minority interests have been deducted and equity income added. Not all companies have these items. Also, investment income, which is wholly dependent upon the whims of management, can change dramatically from year to year.

Just like gross and operating profit margins, net margins vary between industries. By comparing a company's gross and net margins, we can get a good sense of its non-production and non-direct costs like administration, finance, and marketing costs.

Examples of Net Profit Margin

The international airline industry has a gross margin of just 5%. Its net margin is just a tad lower, at about 4%. On the other hand, discount airline companies have much higher gross and net margin numbers. These differences provide some insight into their distinct cost structures. Compared to its bigger cousins, the discount airline industry spends proportionately more on finance, administration, and marketing, and proportionately less on fuel and flight crew salaries.

In the software business, gross margins are very high while net profit margins are considerably lower. This shows that marketing and administrative expenses in this industry are very high, while the costs of sales and operating costs are relatively low.

When a company has a high-profit margin, it usually means that it also has one or more advantages over its competition. Companies with high net profit margins have a bigger cushion to protect themselves during hard times. Companies with profit margins reflecting a competitive advantage can improve their market share during the hard times, leaving them even better positioned when things improve.

The Bottom Line

Margin analysis is a great tool to understand the profitability of companies. It tells us how effective management can wring profits from sales, and how much room a company has to withstand a downturn, fend off competition, and make mistakes. But, like all ratios, margin ratios never offer perfect information. They are only as good as the timeliness and accuracy of the financial data that is fed into them. The correct analysis also depends on a consideration of the company's industry and its position in the business cycle.

Margin ratios highlight companies that are worth further examination. Knowing that a company has a gross margin of 25% or a net profit margin of 5% tells us very little. As with any ratio used on its own, margins tell us a lot, but not the whole story, about a company's prospects.

3.2 Market Based Model (BBM)

What Is the Market Approach?

The market approach is a method of determining the value of an asset based on the selling price of similar assets. It is one of three popular valuation methods, along with the cost approach and discounted cash-flow analysis (DCF).

Regardless of the type of asset being valued, the market approach studies recent sales of similar assets, making adjustments for the differences between them. For example, when appraising real estate, adjustments might be made for factors such as the square footage of the unit, the age and location of the building, and its amenities.

Because the market approach relies on comparisons to similar assets, it is most useful when there is substantial data available regarding recent sales of comparable assets.

i. The market approach is a method for determining the value of an asset.
ii. It is one of three popular approaches, along with the cost approach and discounted cash-flow analysis (DCF).
iii. The market approach excels in situations where abundant data is available on comparable transactions. When that data is not available, alternative approaches may be required.

How the Market Approach Works

As its name suggests, the market approach seeks to answer the question, "what is the fair market value of this asset?" To answer this question, the valuator needs to survey recent transactions involving similar assets. Because these assets are unlikely to be identical to the ones being valued, various adjustments will need to be made.

In some markets, such as residential real estate or publicly traded shares, there is often ample data available, making the market approach relatively easy to employ. In other markets, such as shares in private businesses or alternative investments such as fine art or wine, it can become quite difficult to find comparable transactions.

In situations where limited data is available, the evaluator may need to rely on alternative methods such as the cost approach or discounted cash-flow analysis (DCF).

The primary advantages of the market approach are that it is based on publicly available data on comparable transactions. As such, it can require fewer subjective assumptions than alternative approaches. The primary disadvantage of the market approach is that it can be impractical in situations where few if any comparable transactions exist, such as in the case of a private company operating in a niche market with few competitors.

Example of the Market Approach

To illustrate, suppose you are in the market to purchase a new apartment. You find a listing for an apartment in your preferred neighborhood being offered for #$200,000. The unit is a 1-bedroom, 1,000 square-foot apartment with 1 bathroom. It is in good structural condition but requires some minor renovations. Although it is in a desirable neighborhood, its view is obscured and it does not have an in-suite washing or drying machine.

Although you like the apartment, you feel that the asking price is too high. Since the apartment has been listed for over a month, you begin to suspect that if you make a fair offer, the seller might accept it even if it is below their asking price.

A market-based corporate governance system relies on investors to exert influence on the management of the company. This system relies on capital markets to influence corporate management. The most significant advantage of a market-based corporate governance system is its ability to respond dynamically to changes.

Asset-Based Approach: What is an Asset-Based Approach?

An asset-based approach is a type of business valuation that focuses on a company's net asset value. The net asset value is identified by subtracting total liabilities from total assets. There is some room for interpretation in terms of deciding which of the company's assets and liabilities to include in the valuation and how to measure the worth of each. Please note:

i. There are several methods available for calculating the value of a company.
ii. An asset-based approach identifies a company’s net assets by subtracting liabilities from assets.
iii. The asset-based valuation is often adjusted to calculate a company's net asset value based on the market value of its assets and liabilities.

Understanding an Asset-Based Approach

Identifying and maintaining awareness of the value of a company is an important responsibility for financial executives. Overall, stakeholder and investor returns increase when a company's value increases, and vice versa.

There are a few different ways to identify a company's value. Two of the most common are the equity value and enterprise value. The asset-based approach can also be used in conjunction with these two methods or as a standalone valuation. Both equity value and enterprise value require the use of the equity in the calculation. If a company does not have equity, analysts may use the asset-based valuation as an alternative.

Many stakeholders will also calculate the asset-based value and use it comprehensively in valuation comparisons. The asset-based value may also be required for private companies in certain types of analysis as added due diligence. Furthermore, the asset-based value can also be an important consideration when a company is planning a sale or liquidation.
The asset-based approach uses the value of assets to calculate a business entity's valuation.

Calculating Asset-Based Value

In its most basic form, the asset-based value is equivalent to the company's book value or shareholders' equity. The calculation is generated by subtracting liabilities from assets.
Often, the value of assets minus liabilities differs from the value reported on the balance sheet due to timing and other factors. Asset-based valuations can provide latitude for using market values rather than balance sheet values. Analysts may also include certain intangible assets in asset-based valuations that may or may not be on the balance sheet.

Adjusting Net Assets

One of the biggest challenges in arriving at an asset-based valuation is adjusting net assets. An adjusted asset-based valuation seeks to identify the market value of assets in the current environment. Balance sheet valuations use depreciation to decrease the value of assets over time. Thus, the book value of an asset is not necessarily equivalent to the fair market value. Other considerations for net asset adjustments may include certain intangibles that are not fully valued on the balance sheet or included on the balance sheet at all. Companies might not find it necessary to value certain trade secrets. However, since an adjusted asset-based approach looks at what a company could potentially sell for in the current market, these intangibles are important to consider.

In an adjusted net asset calculation, adjustments can also be made for liabilities. Market value adjustments can potentially increase or decrease the value of liabilities, which directly affects the calculation of adjusted net assets.

3.3 Forensic Presentation of the Asset-based option.

Preparing the Forensic Accounting Report is part of your major responsibilities if you are a forensic accountant. This task is normally done at the final stage of your investigation. In this article, we will tell you’re the main element that you should include when you prepare your forensic accounting reports. Before list down the main element that you should include in your Forensic Accounting Report, we would like to give you some main objectives of the Forensic Accounting Report. Hopefully, you would have some idea about Forensic Accounting Reports.

Forensic accounting engagements are normally investigated over fraud, dispute, insurance claims, and criminal cases. This engagement is normally called by police, lawyer, or the parties in dispute. Forensic accountant reports are normally used as evidence to resolve the case and present to the person seeking forensic accounting service, normally a lawyer, the insurance company, etc. The main elements to be included

1. Executive Summary of Report

Your Forensic Accounting Reports should provide a summary for your reader to make sure that they could get a clear understanding of your reports by not spending a long time.
The importance of opinion and findings that you found during your tasks and what you want your reader to pay attention to should be included here.

Executive Summary should include:

i. Scope of service
ii. Objective of service
iii. Investigation Approach
iv. Summary of Finding (key Finding)

2. Scope of works in the report

The scope of your forensic accounting works is really important both for you and the party who engages with you. Therefore, have to organize a good scope of work is important.
Scope of works also helps forensic accountants to prevent and protect their liabilities to the company or other parties in case there are some problems occur. For example, there is fraud depend on the company, but it is of our scope of the accountant.

Make sure you include this in your Forensic Accounting Report.

3. State Findings in Report

Findings are the weakness, errors, or fraud that you found during the cause of your works. All of the findings should be rate base on the nature of finding, route cause, and impacts.
Attach with evidence is important to empower your findings. Wring the finding should be clear and concise; making sure that the findings are telling the true situation and represent fact.
It probably different from audit findings, forensic accounting findings mostly face data.

4. Provide the Conclusion in the report

All of the forensic accounting reports should have a good conclusion based on the evidence you found during your jobs

Forensic Accounting and Fraud Examination Report

A forensic expert witness is a type of expert witness who would provide expert forensic testimony within a trial. A commonly known form of a forensic expert witness is a scientist who examined a human skeleton to provide important evidence for a criminal trial.

For many years, attorneys on both sides of the courtroom have turned to forensic experts to support their position as well as to identify the potential strengths and weaknesses in the arguments of opposing counsel. Additionally, attorneys can use expert consultants as a "second set of eyes"• to assist in reviewing and assessing the data obtained from other consulting experts to improve their case. Cases involving economic damages and involved accounting analyses can often get bogged down in minutia, and a consultant's highly specialized area of expertise can be invaluable to the lawyer trying to cut through the sea of paperwork, interpret that specific discipline's jargon, and communicate it to the court in user-friendly terms.

The attorney can hire a forensic & investigative accountant or consultant to advise on the facts, issues, and strategies of a specific case. Though the consultant's thoughts and opinions are often incorporated into the attorney's legal strategy, they do not necessarily testify in court. The various state and federal rules permit the attorneys to consult with experts to shape their case, and as long as these experts are not being used to testify in a courtroom, their work product does not need to be shared with or disclosed to opposing counsel. Because the consultant does not give an expert opinion in front of a judge and/or jury, that consultant is not deposed by the opposing counsel. In fact, in many cases, the opposing attorneys may never know that a financial consultant has even been hired.

Discussions between the lawyer and consultant are still protected by attorney work product privilege allowing the two to freely share information without future disclosure to the other side. Only to the extent, the consultant is identified as an expert witness is the work product privilege lifted and his or her work product discoverable by opposing counsel.

As an authority in this field, the forensic accountant is often brought in during the discovery phase of litigation and begins by evaluating the merits of the case and determining whether a claim is valid. After examining the strengths and weaknesses of the client's case, the consultant can then advise on the most effective way to present these facts at trial. The expert consultant is also on board to analyze the positions and arguments being offered by the opposing attorneys and their expert witnesses and verify the amounts claimed.

Additionally, if the consultant specializes in damage evaluations, he or she can help determine within reason how much money the claimant is owed under the circumstances if any. For example, in a civil lawsuit stemming from a car accident, a forensic accountant can be utilized to evaluate the likely loss of past and future earnings asked for by the claimant. On the other side of the case, a consultant representing the insurance company can help determine if the amount sought by the claimant is fair and reasonable or inflated.

Though consultants are not permitted to ask questions during a deposition, they are often called upon to provide specific questions in advance and even sit in on the depositions to offer real-time advice to attorneys. Again, the expert can often offer a perspective not familiar to the attorney.

Though the role of the forensic accountant will vary from case to case, the experience and expertise they bring to the attorney in helping to put together or defend a case can often prove to be immeasurably valuable. In many instances, a reliable expert is one of the first people the attorney calls when setting up his or her team.

Importance of a Forensic Accounting Expert Witness

For corporate fraud investigations to marital asset disputes to a myriad of other financial issues in between, legal proceedings often require an expert to analyze, investigate, and interpret complex financial data and information. A forensic accountant has the unique knowledge and skill set that will offer a legal matter crucial insight and analysis needed to resolve the dispute at hand. Some of the most notable tasks of a forensic accounting expert witness are things like gathering accounting evidence, conducting investigations into the alleged fraud, analyzing financial documents covered by litigation, and verifying proper adherence to Generally Accepted Accounting Principles (GAAP).

Utilizing their specialized knowledge, forensic accountants can contribute to the legal proceedings in a way that is fact-based and impactful. In doing so, forensic accounting is imperative when damages are difficult to prove or determine. A forensic accounting expert witness might be used at each stage of the litigation process. Depending upon the specific case, a forensic accountant might be called upon during:

1. Pretrial: a forensic accountant can help the legal team with guidance during discovery and will often write a report at that stage regarding their findings, supporting facts and evidence, establishing causation, creating general strategy, and organization of the information supporting the case.
2. Trial Support: while many cases end in a settlement before trial, the approach must assume a trial is happening. Therefore, a forensic accountant expert witness will prepare for their testimony and gather any exhibits necessary.

Forensic accountant expert witnesses play a vital role in the litigation process, even in the event of a settlement. Expert witness engagements include any situation where a member of the firm renders a professional opinion in deposition or at trial. The expert's opinion and work product are subject to discovery and are open to cross-examination.

Calling upon their experience and expertise, the forensic accountant is tasked with the responsibility to interpret accounting jargon, offer their investigative findings, and communicate with the court in a straightforward, honest manner. Attorneys lean heavily on forensic accounting to prove their cases using a knowledgebase outside of their own. As such, forensic accountant expert witnesses are extremely important to the legal proceedings and truly invaluable to the attorney who calls upon their expertise

Limitations to Expert Witness duties

No matter the situation an expert witness may found himself in, it is totally out of place to engage in the following:

i. Provide any opinion beyond their specific area of expertise.
ii. Provide advice while giving evidence
iii. Accept any appointment which involves a conflict of interest (unless resolvable by disclosure).
iv. Accept any appointment on terms that are conditional on the outcome of the case. Examples of these are success fees or conditional fee arrangements (any form of payment linked to the results of the Case). Conditional terms are incompatible with the expert being seen to be independent.
v. Act as a negotiator.

Qualifications of Expert Witnesses

An expert witness at the time of trial is qualified by the court and must be re-qualified each time that person comes to trial for the offering of opinions. The qualification is given by each trial judge and takes place regardless of prior appearances by a particular expert witness. Expert witnesses are those whom the court has deemed qualified to speak on a topic to provide a background to anyone on a lay jury.

Experts are generally approached because of their reputation in a field, but before the appointment, they will normally be asked to affirm that they have real expertise in the specific issues identified in the brief. Sometimes parties will invite someone to participate as an expert who may be well-known in the industry but not a particular expert on the specific issues in question. In this situation, the appointment should be declined. It is far wiser to decline than to expose yourself to the risk of being humiliated by real experts and opposing counsel in a hearing.

Nexus between Forensic Accounting and Expert Witnessing

The Association of Certified Fraud Examiners (ACFE) sees forensic accounting as a combination of investigative skills and accounting knowledge that gives litigation support in cases of fraud. The word "forensic" means suitable for use in a court of law, and as a forensic accountant, you'll be tasked with following the money trail looking for fraudulent activity and perhaps testify in court as to the path you followed in your investigation.

Expert witnessing on the other hand is often the most important component of many civil and criminal cases today. Presenting the outcome of fingerprint examination, blood analysis, DNA fingerprinting, and forensic firearm examination in a law court are common kinds of expert witnessing serious criminal cases. In civil cases, the work of accident analysis, forensic engineers, and forensic accountants are usually important, the latter to assess damages and costs in long and complex cases. Intellectual property and medical negligence cases are typical examples.

The existing relationship between Forensic Accounting and Expert Witnessing could be traced back to the genesis of both practices. The expertise employed in investigating money laundering operations, financial fraud, and identity theft among others would not be forensic if not admissive in a court of law. Forensic Accounting provides litigation support services with appropriate provision of professional services in the law courts and institutes good corporate governance in the public sector which instills public confidence in the government and the entire system. Forensic accountants have the professional ability back up by law to break into the organization system and examine the books, make discoveries, and present the documentary evidence in the law courts. Accounting, Auditing, Criminology, Sociology, law, and other forensic accounting skills enhance the assignment of an expert witness and gives robust revelation even while been cross-examined by an opposing counsel.

The Forensic Accountant as an Expert witness

Expert witnessing is the last stage of a forensic accountant's job in combating fraudulent activities or conducting an investigation of all sorts. A forensic accountant should perform the following responsibilities as listed below:

i. **The place of Forensic Accountant in Conducting Investigation:** Owojori and Asaolu (2009), state that the failure of the statutory audit and the sophisticated financial fraud in recent times had led to the need for a forensic audit. Thus, the forensic accountant could be said to have special tools for investigating to detect and prevent fraudulent activities thereby combating financial fraud. Zimbleman (1997), states that a forensic accountant being a fraud investigator is very much likened to a physician who requires a significant amount of diagnostic and explanatory work to discover what is happening. Given the above, it can be said that a forensic accountant goes beyond the normal audit to unveil fraudulent activities by using forensic software tools in conducting and investigating transactions and events.

ii. **The role of Forensic Accountant in Analyzing Financial Transactions:** Cole (2009), states that a forensic accountant is required to have special skills in inspecting documents for authenticity, alteration, forgery, or counterfeiting. Hence, by possessing such skills, the forensic accountant in carrying out his duties can easily detect errors, fraudulent activities, and omissions thereby preventing and reducing fraudulent activities. According to Zimbleman et al. (2012), a forensic accountant is responsible for analyzing and identifying the kinds of fraud that could occur and their symptoms.

iii. **The Reconstruction of Incomplete Accounting Records:** A forensic accountant in carrying out his function reconstructs incomplete accounting records to settle for example insurance claims, over inventory valuation, proving money laundering activities by reconstructing cash transactions (Owojori & Asaolu, 2009).

iv. **The role of Forensic Accountant in Embezzlement Investigation:** Cabole (2009), states that a forensic accountant does the following: Fraud detection; documentation and presentation in criminal trails and claims; calculate economic damages; trace income and assets; reconstruction of financial statements that may have been destroyed or manipulated.

v. **The role of Forensic Accountant in Expert witnessing:** Cabole (2009) shows that a forensic accountant must be an expert in financial matters who must have legal knowledge that could enable him to detect fraudulent activities that are to be presented in a lawsuit. This seems to be the last responsibility of a Forensic Accountant in conducting an investigation, this is the stage that he will be placed on oath in a law court, to testify, to answer questions, present the outcome of his finding, made shocking revelations, and cross-examined by the opposing counsel.

MODULE FOUR: LINK ANALYSIS AND NETWORKING

4.1 LINK ANALYSIS

Introduction

In network theory, link analysis is a data-analysis technique used to evaluate relationships (connections) between nodes. Relationships may be identified among various types of nodes (objects), including organizations, people and transactions. Link analysis has been used for investigation of criminal activity (fraud detection, counterterrorism, and intelligence), computer security analysis, search engine optimization, market research, medical research, and art.

Knowledge discovery is an iterative and interactive process used to identify, analyze and visualize patterns in data. Network analysis, link analysis and social network analysis are all methods of knowledge discovery, each a corresponding subset of the prior method. Most knowledge discovery methods follow these steps (at the highest level):

1. Data processing
2. Transformation
3. Analysis
4. Visualization

Data gathering and processing requires access to data and has several inherent issues, including information overload and data errors. Once data is collected, it will need to be transformed into a format that can be effectively used by both human and computer analyzers. Manual or computer-generated visualizations tools may be mapped from the data, including network charts. Several algorithms exist to help with analysis of data – Dijkstra's algorithm, breadth-first search, and depth-first search.

Link analysis focuses on analysis of relationships among nodes through visualization methods (network charts, association matrix). Here is an example of the relationships that may be mapped for crime investigations:

Relationship/Network	Data Sources
1. Trust	Prior contacts in family, neighborhood, school, military, club or organization. Public and court records. Data may only be available in suspect's native country.
2. Task	Logs and records of phone calls, electronic mail, chat rooms, instant messages, Web site visits. Travel records. Human intelligence: observation of meetings and attendance at common events.
3. Money &	Bank account and money transfer records. Pattern and location of credit card use. Prior court records. Human intelligence: observation of visits

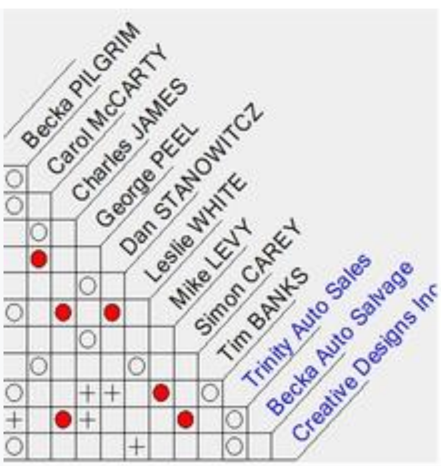
Resources	to alternate banking resources such as Hawala.
4. Strategy & Goals	Web sites. Videos and encrypted disks delivered by courier. Travel records. Human intelligence: observation of meetings and attendance at common events.

Link analysis is used for 3 primary purposes:

1. Find matches in data for known patterns of interest;
2. Find anomalies where known patterns are violated;
3. Discover new patterns of interest (social network analysis, data mining).

4.2 Link Analysis Grouping

Klerks categorized link analysis tools into 3 generations. The first generation was introduced in 1975 as the Anacpapa Chart of Harper and Harris. This method requires that a domain expert review data files, identify associations by constructing an association matrix, create a link chart for visualization and finally analyze the network chart to identify patterns of interest. This method requires extensive domain knowledge and is extremely time-consuming when reviewing vast amounts of data.



Association Matrix

In addition to the association matrix, the activities matrix can be used to produce actionable information, which has practical value and use to law-enforcement. The activities matrix, as the term might imply, centers on the actions and activities of people with respect to locations.

Whereas the association matrix focuses on the relationships between people, organizations, and/or properties.

The distinction between these two types of matrices, while minor, is nonetheless significant in terms of the output of the analysis completed or rendered.

Second generation tools consist of automatic graphics-based analysis tools such as IBM i2 Analyst's Notebook, Netmap, ClueMaker and Watson. These tools offer the ability to automate the construction and updates of the link chart once an association matrix is manually created, however, analysis of the resulting charts and graphs still requires an expert with extensive domain knowledge.

The third generation of link-analysis tools like DataWalk allow the automatic visualization of linkages between elements in a data set, that can then serve as the canvas for further exploration or manual updates.

4.3 Information Overload

With the vast amounts of data and information that are stored electronically, users are confronted with multiple unrelated sources of information available for analysis. Data analysis techniques are required to make effective and efficient use of the data.

Palshikar classifies data analysis techniques into two categories – (statistical models, time-series analysis, clustering and classification, matching algorithms to detect anomalies) and artificial intelligence (AI) techniques (data mining, expert systems, pattern recognition, machine learning techniques, neural networks).

Bolton & Hand define statistical data analysis as either supervised or unsupervised methods. Supervised learning methods require that rules are defined within the system to establish what is expected or unexpected behavior. Unsupervised learning methods review data in comparison to the norm and detect statistical outliers. Supervised learning methods are limited in the scenarios that can be handled as this method requires that training rules are established based on previous patterns. Unsupervised learning methods can provide detection of broader issues, however, may result in a higher false-positive ratio if the behavioral norm is not well established or understood.

Data itself has inherent issues including integrity (or lack of) and continuous changes. Data may contain "errors of omission and commission because of faulty collection or handling, and when entities are actively attempting to deceive and/or conceal their actions". Sparrow highlights incompleteness (inevitability of missing data or links), fuzzy boundaries (subjectivity in deciding what to include) and dynamic changes (recognition that data is ever-changing) as the three primary problems with data analysis.

Once data is transformed into a usable format, open texture and cross referencing issues may arise. Open texture was defined by Waismann as the unavoidable uncertainty in meaning when empirical terms are used in different contexts. Uncertainty in meaning of terms presents problems when attempting to search and cross reference data from multiple sources.

The primary method for resolving data analysis issues is reliance on domain knowledge from an expert. This is a very time-consuming and costly method of conducting link analysis and has inherent problems of its own. McGrath et al. conclude that the layout and presentation of a network diagram have a significant impact on the user's "perceptions of the existence of groups in networks". Even using domain experts may result in differing conclusions as analysis may be subjective.

4.4 Prosecution vs. Crime Prevention

Link analysis techniques have primarily been used for prosecution, as it is far easier to review historical data for patterns than it is to attempt to predict future actions.

Krebs demonstrated the use of an association matrix and link chart of the terrorist network associated with the 19 hijackers responsible for the September 11th attacks by mapping publicly available details made available following the attacks. Even with the advantages of hindsight and publicly available information on people, places and transactions, it is clear that there is missing data.

Alternatively, Picarelli argued that use of link analysis techniques could have been used to identify and potentially prevent illicit activities within the Aum Shinrikyo network. We must be careful of 'guilt by association'.

Being linked to a terrorist does not prove guilt – but it does invite investigation. Balancing the legal concepts of probable cause, right to privacy and freedom of association become challenging when reviewing potentially sensitive data with the objective to prevent crime or illegal activity that has not yet occurred.

There are four categories of proposed link analysis solutions:

1. Heuristic-based
2. Template-based
3. Similarity-based
4. Statistical

Heuristic-based tools utilize decision rules that are distilled from expert knowledge using structured data. Template-based tools employ Natural Language Processing (NLP) to extract details from unstructured data that are matched to pre-defined templates. Similarity-based approaches use weighted scoring to compare attributes and identify potential links. Statistical approaches identify potential links based on lexical statistics

4.4.1 LINK ANALYSIS AND CRIME – AN EXAMINATION.

The topic of fraud is widely discussed, and the focus of thousands upon thousands of articles. Television shows such as American Greed have become popular due, in part, to our fascination with the topic of fraud.

The organizations that are affected by fraud are also fascinated… but for entirely different reasons. Some estimates suggest that the US economy loses 11 trillion dollars each year due to one form of fraud or another. It's little wonder, therefore, that the companies most frequently defrauded have been heavily investing in anti-fraud technologies at an increasing rate over the past decade or more.

The biggest problem with fraud, of course, is that it is always evolving in a very Darwinian fashion. Like a living, breathing entity, fraud schemes change over time in order to survive. As the targets of fraud schemes put new policies, procedures and/or systems to deter the activities, the schemes modify and find new ways to survive.

So, since the nature of criminal activity is such that they constantly change, how do investigators find a fool proof methodology to ensure they are 100% safe from them? The answer, of course, is that they can't. They never will; at least not until we live in a world such as the one depicted in the 2002 film Minority Report, starring Tom Cruise. In that movie, criminals are arrested prior to committing a crime based upon the predictions of psychics called 'Precogs'. Corporations and individual targets of fraud can only wish.

Nope, there are no Precogs running around locking up would-be practitioners of fraud that would protect banks, insurance companies, Medicaid and Medicare programs, victims of Ponzi schemes, victims of identity theft, and countless others. Instead, organizations rely upon skilled knowledge workers using purpose-built crime and fraud analytics technology that can detect anomalies in patterns, suspicious transactions, hotspot mapping, networks of fraudsters, and other sophisticated data analytics tools.

4.5 Crime and Fraud Analytics

Any discussion of analytics and investigation software must touch upon the topic of 'big data'. No longer just a buzz word, big data literally fuels the insights gathered by organizations in every area of business. Naturally, then, organizations who have been traditionally targeted by fraudsters have increasingly invested in crime technology such as investigation software and analytics in order to exploit the phenomenon. Of course, big data in and by itself does nothing. It just sits there.

Nobody has ever yelled "Help! We've been defrauded! Call the big data!" Big data is only useful when it can be transformed into 'smart data'. In other words, understanding the big picture of costly fraudulent activities is not akin to understanding the specifics of 'who' is defrauding you, and 'how' they are doing it.

Those questions can best be answered through the powerful data mining and link analysis software tools offered by Austin, TX based Crime Tech Solutions in partnership with Sterling, VA based Visallo. Effective link analysis complements big data analytics platforms, helping to expose previously undetected fraud, and the entities (people or organizations) committing it.

Link Analysis – Transforming big data into smart data

By definition, link analysis is a data analysis technique that examines relationships among people, places, and things. As a visual tool, link analysis provides users a powerful method to quickly understand and 'see' what is happening. Because of this, it is widely used by financial institutions such as banks and insurance companies to uncover criminal networks, improve fraud investigations, detect insider fraud, and expose money laundering schemes. Similarly, government agencies use link analysis to investigate fraud, enhance screening processes, uncover terrorist networks and investigate criminal activities.

What does Link Analysis mean?

Link analysis is a data analysis technique used in network theory that is used to evaluate the relationships or connections between network nodes. These relationships can be between various types of objects (nodes), including people, organizations and even transactions.

Link analysis is essentially a kind of knowledge discovery that can be used to visualize data to allow for better analysis, especially in the context of links, whether Web links or relationship links between people or between different entities. Link analysis is often used in search engine optimization as well as in intelligence, in security analysis and in market and medical research.

Techopedia explains Link Analysis

Link analysis is literally about analyzing the links between objects, whether they are physical, digital or relational. This requires diligent data gathering. For example, in the case of a website where all of the links and backlinks that are present must be analyzed, a tool has to sift through all of the HTML codes and various scripts in the page and then follow all the links it finds in order to determine what sort of links are present and whether they are active or dead. This information can be very important for search engine optimization, as it allows the analyst to determine whether the search engine is actually able to find and index the website.

In networking, link analysis may involve determining the integrity of the connection between each network node by analyzing the data that passes through the physical or virtual links. With the data, analysts can find bottlenecks and possible fault areas and are able to patch them up more quickly or even help with network optimization.

Link analysis has three primary purposes:

- Find matches for known patterns of interests between linked objects.
- Find anomalies by detecting violated known patterns.
- Find new patterns of interest (for example, in social networking and marketing and business intelligence)

4.6 The Policemen Theory

The theories of audit expectations and the expectations gap

This essay deals with the demand for audit functions and the resulting expectations in auditors' work. The credibility of mandated disclosure of financial statements is the central issue for regulatory bodies attempting to protect the public interest. This requirement gives rise to a demand for auditing services. Since the beginning of the audit profession theories were made in order to specify and determine the audit functions.

The 'agency-theory' is associated with the conflicting interests of shareholders and management of a company, suggesting that the less-informed party (shareholders) will have a demand for information that monitors the behaviour of the better-informed manager. Thus, audits of financial reports would be one form of such information, providing the shareholders with independent assurance about the ongoing developments. The 'lending credibility theory' is similar to the agency-theory and states that audited financial statements can enhance stakeholders' faith in management's stewardship.

Another theory is the 'theory of inspired confidence', whereby stakeholders demand accountability from the management as an exchange for their contribution to the company. The last discussed theory is the 'policeman theory' which narrows auditor's responsibilities to prevention and detection of fraud.

All these theories describe the expectations the stakeholders have of the auditors, including protection against fraud, warning of future insolvency, general re-assurance of financial well-being, safeguards for auditor independence and understanding of audit reports. Although these expectations seem to be rather natural, however, an audit expectations gap does exist based mostly on the diversity of views about the audit function. The gap exists between what the public expects the auditor to do and what the auditor can and should do. Several suggestions were made to narrow the expectations gap, as well as providing statutes in order to describe audit functions especially concerning the responsibility to detect and report errors and fraud.

Audit plays an essential role in serving the public interest to „strengthen accountability and reinforce trust and confidence in financial reporting"(ICAEW, 2005). However, scandals like Enron and WorldCom in the US or Parmalat in Europe have given the audit profession a lot of publicity, some of which is negative. Thereupon, global opinions were voiced demanding improvements in audit quality. As a result of these, changes have been made in order to promote greater transparency in the audit and accountability in auditors.

Nevertheless, the demands for further improvements continue to exist. This raises questions about how (and to what extent) these various demands and concerns can be addressed.

To answer this question it is important to understand what auditing actually means, what is its purpose and what are the limitations and relationships that surround the audit role? Auditors face a number of conflicting pressures, for they need to satisfy the shareholders as well as other parties involved in the process. Each of these parties has its own expectations and demands concerning the duties of the auditor. Since the development of the profession several theories were formend trying to determine audit functions. Building on that, the aim of this paper is to illustrate the nature of audit expectations with regard to the interests of each party.

The essay is organised in three sections in order to highlight the structure. The first section gives a short description of the historical background of the audit function, referring to the original demand that caused the development of the audit profession, its purpose and goals, particularly with regard to the parties concerned. Different theories that try to determine the auditor's duties are mentioned here.

The second section deals with audit expectations in terms of auditors' responsibilities, also responding to the expectations gap. It also considers components of the expectations gap and possibilities of eliminating these components in order to reduce the gap. The third, and last, part comprises a conclusion of the essay and a short outlook as to the audit situation.

Any attempt to explain auditing and to describe that its characteristics cannot succeed without providing sufficient explanation of the environment in which the auditors are acting and the reasons why they are actually needed.

The Demand for Auditing

The Industrial Revolution in the 18th century led to the development of large industrial companies with complex bureaucratic structures. In the course of time, specialists were needed to provide appropriate bookkeeping and auditing. Nowadays, the demand for auditors exists in the process of the communication of accounting information by which this information is transmitted to interested parties. The auditor is needed as an independent third party to "establish a degree of correspondence between assertions made by management and user criteria" (Soltani, 2007).

This need results in four conditions: conflict of interest, consequences, complexity and remoteness. Because of the interaction of these four conditions, the users need the independent auditor to assist them to understand the information received. In the UK, the need for an audit has also been stipulated by the Companies Act 1985 which "requires all companies to appoint an auditor" (Letza, 1995) and regulates the functions the auditor has to perform, including the examination of the company's annual financial accounts.

The auditor is appointed by the company's shareholders and reports his results to his clients. The aim of the auditor's report is to comment on how accurately the company presents its financial situation and how it is performing. This should reassure the shareholders that their investment is secured and also "help to reduce [...] the practice of misleading accounting procedures designed to show the company in a more favourable light" (Letza, 1995). Basically, the audit is represented as a process designed to evaluate the credibility of information of a company's financial statements. According to Humphrey (1997), "auditing is not regarded as an exact science, designed to specify to 100 per cent accuracy the information contained in the financial statements. It is more a process of judgement, concerned to ensure that the information is reasonably accurate, true and fair, not true and correct, sufficient rather than absolute".

The business world consists of different groups that are affected by, or paticipate in, the financial reporting requirements of the regulatory agencies. They are shareholders, managers, creditors, employees, government and other groups. The major recipients of the annual reports are the shareholders, including individuals with relatively small shareholding and large institutions such as banks or insurance companies. Their decision is usually based on the financial reporting and the performance of the company's management, who have a responsibility to act in the interests of investors. Thus, the purpose of the financial statements is to assist the shareholders with the evaluation of management's stewardship.

The creditor's decisions are based on the examination and evaluation of a company's financial resources, future performance and risk. Therefore, a company's financial statements are of great importance to the bank loan officer as well as to the company itself, as this is the base for their potential loan extension. For employees, financial statements are an important source of information about the profitability of the company and its ability to pay. In the case of governments, the information may be used for tax calculations or government contracting (Soltani, 2007).

Wallace (1980) identified three hypotheses to explain the demand for auditing: the stewardship hypothesis, the information hypothesis and the insurance hypothesis. The stewardship hypothesis is best explained by the use of the agency theory. The theory describes the relationship between the management of a company (agent) and its shareholders (principals). It is assumed that the agent has a considerable advantage over the principal, for he possesses more information about the value of the company. This is also known as information-asymmetry and may lead to conflicts of interest between the shareholders and managers.

In order for the principals to be able to rely on the information given by the management "there is an incentive for both managers and outside investors to engage reputable auditors" (Hayes et al., 2005). The audit function adds to the credibility of information, for users can have more confidence in the information, which assists them in their decisions. Although external auditing cannot be expected to eliminate information-asymmetry, it can diminish the effect of this asymmetry on a company's value (Soltani, 2007). Another theory, based on public perception, is the lending credibility theory. The key issue of this theory is likewise the addition of credibility to the financial statements and the reduction of the information-asymmetry. Stakeholders need a guarantee for a “fair representation of the economic value of the firm” (Hayes et al., 2005).

The information hypothesis assigns an important role to the auditor in providing credibility to the financial statements. Given a situation of uncertainty, the demand for auditing has several possible explanations. The first one is the general belief that an audit enhances the reliability and credibility of financial statement data and provides assurance to users about their decisions. Another explanation is the dependence of the investors on the audit to produce information helpful in estimating risk, even if the audit results do nothing more than confirm the investor’s expectations and beliefs about their decisions (Soltani, 2007). The insurance hypothesis adds a supposition that the demand for auditing is created when the auditor acts as a guarantor for users against the risk of loss.

According to Limperg’s theory of inspired confidence, “the demand for audit services is the direct consequence of the participation of ouside stakeholders (third parties) in the economy” (Hayes et al., 2005). Therefore, since the information given to the stakeholders by the management might be biased, an audit of this information is needed. The fourth theory explaining the demand for audit services is the policeman theory. It restrains the auditor’s responsibilities on “arithmetical accuracy and on the prevention and detection of fraud” (Hayes et al., 2005). However, after several financial statement frauds and company collapses in the past this theory has been reconsidered.

The role of the auditor is essential for verifying the accuracy and correctness of the information provided by corporations. He acts as an intermediary between the management and the users of this financial information. To reduce the information asymmetry, the auditor has also to comminicate with those using the information he provides.

Thus, it is important that the groups involved have an understanding of the audit’s meaning. However, in this case the opinions are divided. Several attitudes do exist concerning the expectations of the purpose and operation of the audit. Humphrey (1997) provides the most notable distinctions between views of auditing: as a socially oriented function, in which “the auditors are portrayed as ethical, socially responsible individuals”, and auditing as a monopolistic business

MODULE FIVE: EVIDENCE AND EVIDENCE GATHERING

5.1 Evidence and identifying basic forms of evidence

Evidence gathering focuses on collecting all potential evidence, such as might be present in computer/network logs, on defaced websites, on social media sites, or forensically from a computer hard drive. Behavior analysis is the process of trying to obtain meaningful behavior characteristics from the evidence found.

Cyberbullying

Evidence, gathering, and archiving of messages, should always be retained so that there is no misinterpretation. E-mails, instant messages (IM), text messages, photo messages, and so on, regardless of the content, should be retained. The more you archive, along with time stamps and dates, the better you are positioned invalidating your claim. Wherever possible, include screenshots of evidence to help substantiate any images or content that you may receive. Provide e-mail in its original form where it retains the message header information, along with the message intact so that tampering is ruled out. Wherever possible, archive the evidence that you've gathered via CD-R or DVD-R media so that it can be easily distributed to authorities with less concern of tampering. Contact the abuse teams of those services that were found to contain the material; whether it's an e-mail service provider such as Gmail or instant messaging services through AOL, all of the service providers have abuse teams dedicated to handling such situations and typically have online forms to initiate the dialog. Keep all confirmation dialog and threads of conversations between service providers to demonstrate that there is an effort in working with them.

Cyber Forensics

Electronic evidence and information gathering have become central issues in an increasing number of conflicts and crimes. Electronic or cyber evidence used to mean *the regular printout* *from a computer*, and a lot of cyber exhibits in court are just that concerned But for many years, law enforcement officers have been seizing data media and computers themselves, because they have become smaller and more ubiquitous. Investigators have generated their printouts, sometimes using the original application program, specialist analytic, and examination tools. More recently, investigators found ways to collect evidence from remote computers to which they do not have immediate physical access, provided such computers are accessible via a phone line or network connection. It is even possible to track activities across a cyber-network, including the Internet.

These procedures form part of what is called *cyber forensics*, although some people also use the term to include the use of computers to analyze complex data (for example, analyzing connections between individuals by examining telephone logs and/or bank account transactions). Another use of the term is when computers are employed in the court itself in the form of cyber graphics, to illustrate a complex situation such as a fraud or as a replacement for large volumes of paper-based exhibits and statements.

Thinking about Risk

Organizations need to have confidence in the information and processes underlying the management of all types of risk. Concerning managing risk associated with operating and maintaining information systems, organizations need to have an appropriate level of confidence that the security measures implemented to protect information systems are effective in achieving their security objectives and in providing adequate security for information assets. In information security management, the level of confidence in the effectiveness of security controls is called *assurance*. Assurance helps organizations determine the level of trustworthiness attributable to information systems and the organizations that operate them and therefore influence the risk determination associated with those systems and organizations, as higher levels of trustworthiness correlate to lower levels of some types of risk. Assurance is based on the evidence presented to decision-makers, often as the result of assessments, audits, or other types of evaluations conducted on various aspects of organizational operations.

Organizations often perform their evidence-gathering activities, directly or through the use of independent auditors or assessors. Concerning hardware, software, infrastructure, or services acquired from external vendors, contractors, or service providers, assurance may also be based on evidence produced by organizations that conduct external testing or certification on technology products or service providers. Examples of testing and security certification programs include the Common Criteria Evaluation and Validation Scheme for IT Security (CCEVS) administered by the National Information Assurance Partnership (NIAP) and the third-party assessment of cloud computing service providers under the Federal Risk and Authorization Management Program.

In the information security management context assurance evidence often comes in the form of an information system or operational testing results, security control assessments, continuous monitoring data, or certifications provided by accredited third parties. The concept of assurance applies in many domains other than information technology and is relevant to risk determinations for types of risk beyond information security risk. Both public and private sector organizations are subject to periodic audits, reviews, or assessments of their financial management and accounting practices, program management performance, safety, regulatory compliance, or other operational characteristics in addition to the effectiveness of the information security and privacy controls. The evidence produced as a result of such evaluations informs risk management decisions made by organizational leaders and external authorities with regulatory oversight or other supervisory responsibilities.

Preparing Your Report: Chain-of-Custody Form

The chain-of-custody form is critical in evidence gathering, and it comes into play as soon as you arrive at the scene of the incident. Every report, disk, screenshot, and the printout is considered evidence; the chain of custody will begin as soon as the evidence is placed in an evidence bag or is tagged as evidence. Every time you pass the evidence along to another person to handle, that person will sign for it and will note on the chain-of-custody from the date and time of the transfer. If anyone handles the evidence without signing this form, the chain of custody will be broken and the evidence may no longer be admissible in a court of law.

Closely related to the chain-of-custody form is the evidence form, which is used to keep track of model and serial numbers that may help to identify certain pieces of evidence. We will discuss evidence forms in a bit.

Internet Criminals: Investigating Internet Crimes

Shoemaker and Kennedy (2009) observed that cybercrime profiling investigations involve five processes: evidence gathering, behavior analysis, victimology, crime pattern analysis, and profile development. Evidence gathering focuses on collecting all potential evidence, such as might be present in computer/network logs, on defaced websites, on social media sites, or forensically from a computer hard drive. Behavior analysis is the process of trying to obtain meaningful behavior characteristics from the evidence found. Victimology is the process of studying the victim for clues why they may have been targeted or for some kind of relationship they may have with the offender. Crime pattern analysis involves looking at the information and data from the first three stages about time and geography and developing a working theory of who the offender might be, along with why the crime was committed. The last process, profile development, attempts to take the information and theories and create an offender profile. Frequently, this last process will look at other known profile groups, developed via the inductive approach, to bring into focus a specific offender profile. As the above reflects knowledge of both the inductive and deductive approaches is extremely helpful in developing a user profile that identifies the Internet criminal.

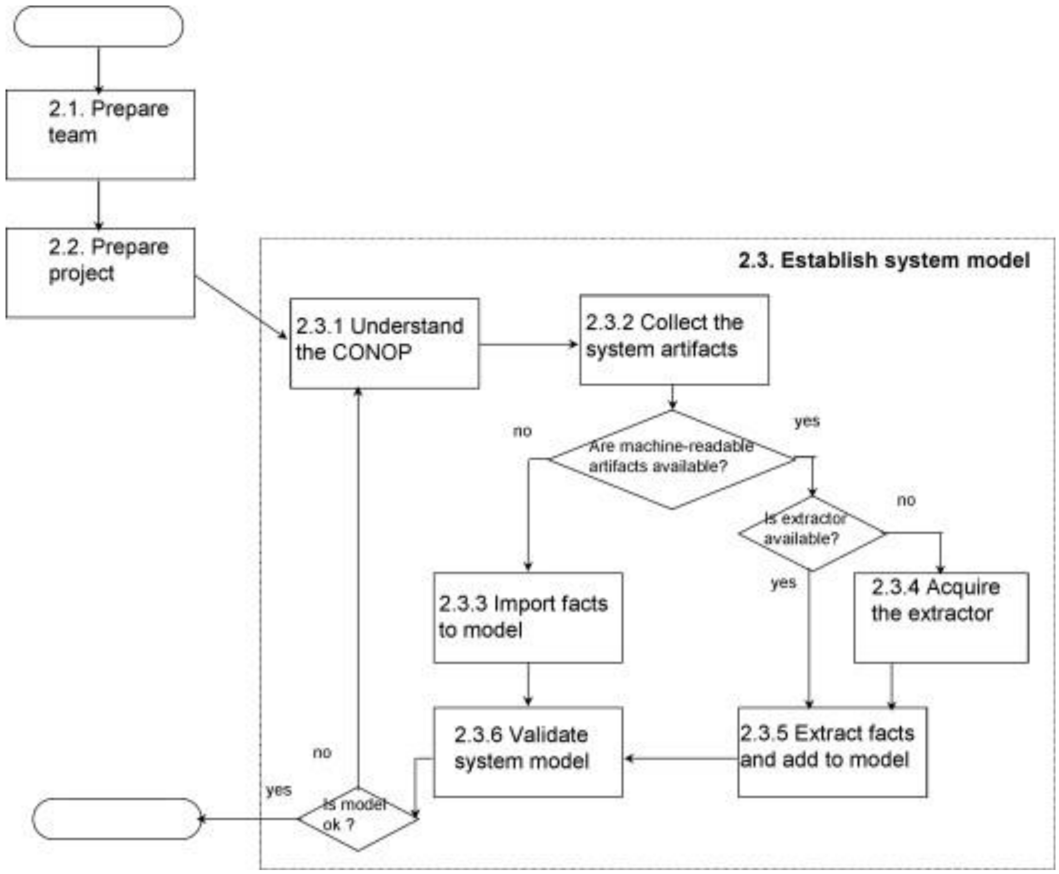
Additionally, we believe three general principles pertain to identifying the Internet criminal, particularly when the offender and victim have no apparent relationship. The first principle holds that as the interaction between the offender and their victim increases, so does the potential to locate and identify the offender. The more times the offender sends an email, posts a message on a website or social networking site, etc. the more likely clues will be left behind for the investigator. Even offenders using anonymization methods, sometimes get comfortable, lazy, and make contact without adequately covering their tracks. Additionally, these clues are also not always in the form of digital evidence. An offender may inadvertently provide some piece of information, such as in an email, instant message that gives away their identity. Take the case of a cyberstalker using a bogus email or profile to communicate with their victim. As the communications continue, some will get caught in the moment and respond something like: "Don't you know who this is? It is Fred from work" and so on.

The second principle is as the Internet criminal creates more victims, the greater likelihood a pattern will be detected that leads to their identity. This is why it is so important that victims report the crime to law enforcement and is part of the reasoning behind the IC3 creation. As with the first principle, the Internet criminal may leave little or no evidence behind with the first few victims but get sloppy on the sixth or seventh victim and leave clues behind that lead to their location and identity. Additionally, as the Internet criminal increases their loss total with multiple victims, they increase the investigative attention. Few police agencies will devote many investigative resources to locating an Internet criminal who stole $100 from one victim. But an Internet criminal who steals $100 from say 1,000 victims, particularly if many are customers from the same financial institution, will likely result in an investigative response. As the victim tally increases, as well as the loss, so will the investigative resources devoted to finding the perpetrator(s).

The final principle is the more informed the victim, the better likelihood they will be able to assist the investigator. In cyberstalking cases, the victim must keep records of what happened when, as well as maintaining emails, instant messages, etc. By maintaining and providing this information to the investigator they can greatly assist in identifying the perpetrator. Additionally, from an online safety perspective, the more informed individuals are about the various Internet crimes, the greater likelihood they will not become victims in the first place. This is an excellent law enforcement rationale for developing Internet safety presentations for their communities. Having an online safety initiative is less costly than conducting Internet crime investigations.

How to build confidence

Phase 2. "Prepare project" is the transition from defining the project, bidding, and negotiation to evidence gathering and analysis of the system. This transition involves three activities (illustrated at Figure 4): preparation of the team, preparation of the project, and establishing the baseline system model.



Sign in to download the full-size image

Activity 2.1 – **Prepare team**. This activity involves the selection of the assessment team and the introduction of the team to the organization to be assessed. The team leader must ensure adequate expertise, experience, and skills of the members of the team, including the skills of using automated tools.

Activity 2.2 – **Prepare project**. This activity involves the introduction of the assessment team to the organization to be assessed, which involves obtaining written permissions for performing assessment activities to comply with the legislation and organization's policy, requesting access permissions and user accounts, obtaining the licenses for the tools required for the assessment project, installing the tools, planning and coordinating the assessment activities with the customer, and scheduling interviews. The details of this phase are outside of the scope of this book.

Activity 2.3 – **Establish system model**. The objective of this activity is to collect the baseline facts about the structure and behavior of the system being assessed. The project preparation phase is characterized by the use of *automated knowledge extraction tools* to capture the bulk of accurate low-level system facts related to the structure and behavior of the system. The system model is used during the evidence gathering during the architecture security analysis phase when the initial facts about the system are further extended and enriched to allow reasoning about the effectiveness of system safeguards and as a result, reasoning about the security posture of the system. The exact content of the baseline system model is determined in part by the availability of the extractor tools. The need for certain system facts is in part determined by the implementation of the system. As a rule of thumb, the baseline system model should contain the network diagram of the system that enumerates all the relevant physical nodes and applications and their interconnections and should enumerate all system artifacts, how they are used to build the system, full logical views of each application within the scope of the assessment, facts related to the runtime platform, and facts related to the user interfaces and persistent data of the system.

Activity 2.4 – **Understand the CONOP**. The CONOP document provides the initial guidance to the purpose of the system, the elements of the system and their roles, and provides the starting point for understanding its key artifacts.

Activity 2.5 – **Collect the system artifacts**. A system artifact is a tangible document created through the system development process. Examples are requirement specification documents, design documents, source code, and executables. Artifacts are sources of facts about the system. At this phase, a determination is made whether an artifact contributes to the *baseline system model*. Some system artifacts are machine-readable, meaning that they are structured documents with well-defined syntax and semantics, such as source files, executables, and XML files. Unstructured documents, such as text documents and emails, may contain useful facts about the system but are in general significantly more difficult to process automatically. Some pieces of information may not be available as machine-readable documents; for example, the network configuration of the system or the user interface of the system.

Activity 2.6 – **Import facts to model**. This activity deals with the pieces of information that are not available in a machine-readable format. In that case, the corresponding machine-readable description is created manually and imported into the system model. The cost of the assessment is minimized when the system model is populated using automated extractor tools. Fortunately, the trend of modern system development is to accumulate accurate machine-readable information throughout the system life cycle.

Activity 2.7 – **Acquire the extractor**. Depending on the type of the system artifacts (e.g., executable format, programming language, data definition language, runtime platform, and network configuration) the assessment team should acquire the corresponding knowledge extraction tool. Extractors that are specific to the system of interest must be custom-built for the project.

Phase 2.8– **Extract facts and add them to the model**. During this activity, the extractor is applied to the corresponding system artifacts, and system facts are added to the system model. The outcome of this activity is a KDM view of the system of interest, according to one of the KDM viewpoints, are Inventory, Build, Code, Platform, User Interface, Data or Event view.

Phase 2.9 – **Validate system model**. Validation and verification of the system model is the critical activity for the entire system assurance project because the system model is used to manage all pieces of assurance knowledge throughout the project. Populating the system model is usually an iterative process because the initial understanding of the system and its artifacts is seldom comprehensive enough. *Evidence* of the correctness of the baseline system model is critical to the assurance case. Because of the required automation, the bulk of the justification effort can be done once through the process of certifying the extractors, which can then be reused during multiple assurance projects.

Evidence-gathering techniques are:–Inquiry.

Observation –Inspection (physical evidence and examination of documents) – Recalculation – Re-performance –Confirmation Analytical procedures.

Inquiry consists of seeking information from knowledgeable persons inside (client) or outside the entity.

Audit procedures to obtain audit evidence can include inspection, observation, confirmation, recalculation, re-performance, and analytical procedures, often in some combination, in addition to the inquiry

What type of evidence is not admissible in court?

The general rule is that any statement, other than one made by a witness while giving evidence in the proceedings, is inadmissible as evidence of the **facts** stated. However, this rule only applies if the statement is given as evidence of the truth of its contents. The rule applies to both oral and written statements

Gathering relevant material is one of the most important aspects of fraud investigation and features in the FIM.

In many fraud-related cases, the defense will closely examine how the material has been gathered and how disclosure has been handled throughout the investigation. The investigator requires a comprehensive understanding of both the legislation and the procedure for gathering the material encountered during an investigation. It is, therefore, vital that they follow the appropriate procedures for gathering, storing, and disclosing material. Gathering the relevant evidence is the easy part, making sure that it stands up to the tests of the defense is the true challenge.

Fast track actions: Investigation and Gathering Evidence

Police investigations have two principal and overlapping functions in the administration of criminal justice:

(1) to *determine if a crime occurred* (and if so to *identify* and, when appropriate, arrest the person or persons responsible); and

(2) to *collect evidence* that would be **admissible** at trial and sufficient to prove the guilt of those ultimately accused of responsibility.

The length and complexity of this process, and the range of investigative techniques brought to bear, vary tremendously. In a very simple “street crime,” an apparent culprit may be identified and arrested immediately on a reactive basis, and the evidence-gathering may be straightforward and limited in scope; investigations in more complicated matters may take place on a proactive basis and can take months or even years to review and obtain evidence before a decision can be made to prosecute.

5.2 Burden of Proof in litigation and Criminal Litigation

A party's duty to produce sufficient evidence to support an allegation or argument. Plaintiffs in civil cases typically have the burden of proving their allegations by a preponderance of the evidence. In criminal cases, the prosecution typically has the burden of proving its allegations beyond a reasonable doubt. The burden of proof is a legal duty that encompasses two connected but separate ideas that apply for establishing the truth of facts in a trial before tribunals in the United States: the "burden of production" and the "burden of persuasion."

The burden of proof can define the duty placed upon a party to prove or disprove a disputed fact, or it can define which party bears this burden. In criminal cases, the burden of proof is placed on the prosecution, who must demonstrate that the defendant is guilty before a jury may convict him or her. But in some jurisdictions, the defendant has the burden of establishing the existence of certain facts that give rise to a defense, such as an insanity plea. In civil cases, the plaintiff is normally charged with the burden of proof, but the defendant can be required to establish certain defenses.

5.3 Circumstantial evidence and direct evidence

The evidential burden is the obligation to adduce sufficient evidence on a fact in issue to justify, as a possibility, a favorable finding on that issue by the magistrates or jury. Evidential burden or "production burden" is the obligation to produce evidence to properly raise an issue at trial. Failure to satisfy the evidential burden means that an issue cannot be raised at a court of law. Evidential burden, about a matter, means the burden of adducing or pointing to evidence that suggests a reasonable possibility that the matter exists or does not exist. Generally, the prosecution will bear both the legal and evidential burden of proof.

The evidential burden has been described as the obligation "to show, if called upon to do so, that there is sufficient evidence to raise an issue as to the existence or non-existence of a fact in issue, due regard being had to the standard of proof demanded of the party under such obligation".

Lord Bingham said that evidential burden is not a burden of proof, but rather a burden of raising an issue as to the matter in question fit for consideration by the tribunal of fact. In the criminal law context, if an issue is properly raised, it is for the prosecutor to prove, beyond a reasonable doubt, that that issue does not avail the defendant. In the United States, however, both the burden of production and the burden of persuasion is referred to as "burdens of proof."

An evidential burden compels a party to produce evidence in support of an issue it seeks to raise, failing which the party shall not be permitted to raise it at all. This burden can rest on either party, although it usually relates to matters of defense raised by the accused. Some defenses impose an evidential burden on the defendant. If the evidential burden is met, the prosecution then bears the burden of proof (which is not called an evidential burden).

For example, if a person charged with murder pleads self-defense, the defendant must satisfy the evidential burden that there is some evidence suggesting self-defense. The burden of proof then falls on the prosecution to produce evidence to support their position. In such a case, a legal burden will always rest on the prosecution to prove beyond a reasonable doubt that the defendant was not acting in self-defense. A legal burden is determined by substantive law, rests upon one party, and never shifts.

The satisfaction of the evidential burden has sometimes been described as "shifting the burden of proof", a label which has been criticized because the burden placed on a defendant is not the legal burden of proof resting on the prosecution

5.4 Factors of relevant evidence

Relevance is the basic building block of evidence rules—evidence must be relevant to be admissible. For evidence to be relevant; there must be some logical connection between it and the fact it's offered to prove or disprove.

The connection needn’t be so strong that any single item of evidence alone proves or disproves the fact. It’s good enough if the piece of evidence constitutes a link in a chain of proof.

The first hurdle to presenting any piece of evidence to a court is showing that the evidence is relevant. Relevance is a threshold requirement that must be met before the court can consider the value the evidence may have. Evidence is relevant when it "has any tendency to make a fact more or less probable than it would be without the evidence" and "the fact is of consequence in determining the action."

For example, in a breach of contract case, the most relevant and direct piece of evidence is usually the contract itself. The contract shows the court the obligations each party had. One party may also present testimony showing that the opposing party failed to make a payment that was required by the contract. All of this evidence is relevant to show that one party failed to comply with the contract terms. Proving that one party failed to comply with the contract is a fact of consequence in determining a breach of contract case. Once evidence is shown to be relevant, that evidence is admissible in court unless it is excluded by some other rule of law or evidence. Irrelevant evidence is not admissible.

A court may exclude relevant evidence when the probative value of the evidence is substantially outweighed by the danger of one or more of the following:

i. unfair prejudice;
ii. confusing the issues;
iii. misleading the jury;
iv. undue delay;
v. wasting time; or
vi. needlessly presenting cumulative evidence.

Physical evidence is any material object that plays some role in the matter that gave rise to the litigation, introduced as evidence in a judicial proceeding to prove a fact in an issue based on the object's physical characteristics.

Excluding Relevant Evidence

In determining whether relevant evidence should still be excluded, the court is concerned with focusing on the legal issues in the case and avoiding distractions that certain pieces of evidence present.

Unfair prejudice, one of the dangers outweighing the probative value of the evidence, is a good example of this. It is a common reason why relevant evidence is excluded. Consider a robbery case where the prosecutor seeks to introduce testimony that a witness saw the defendant using drugs near the store that was robbed about ten minutes before the robbery. This evidence is relevant because it shows that the defendant was near the store close in time to when the robbery occurred.

However, this testimony's probative value may be outweighed by the danger of unfair prejudice. This testimony presents the risk of prejudice because it indicates that the defendant may have committed the crime of drug use and, thus, is a person who regularly commits crimes. A court may decide to exclude the observation of the defendant using drugs to prevent the threat of unfair prejudice to the defendant.

The last robbery example highlights a special type of evidence known as "***character evidence***." Character evidence is used to describe a character trait of a person, such as a tendency to commit crimes. Character evidence could also include a witness testifying that a party in the case has a reputation in the community of being a violent person, or a witness opinion that the defendant is very honest and truthful.

As a general rule, character evidence may not be used to prove that a person acted by a character or trait on a particular occasion. Thus, if a plaintiff wanted to present testimony indicating that the defendant is known as a violent person, this evidence could not be used in an assault case to prove that the defendant acted violently on the occasion of the alleged assault. This type of evidence presents a threat of unfair prejudice because it invites the court or jury to judge the defendant based on his reputation, rather than on the facts established during a trial.

Exceptions to the Rule against Character Evidence

Many exceptions are made to the general rule against character evidence. In criminal cases, the defendant may present character evidence about him or herself. For example, the defendant in an assault case may present a witness who states that a defendant is a non-violent person. The defendant may do this, even though the prosecutor would not be allowed to initially present testimony that the defendant is known as a violent person.

However, if a defendant presents evidence showing that he is a non-violent person, then he ‘opens the door’ to the prosecutor presenting rebuttal, or contrary, evidence. The prosecutor would be permitted to show that the defendant is known as a violent person in the community, in an attempt to disprove the defendant’s evidence. Similarly, if a defendant seeks to admit evidence about the character of a victim, the door is opened to the prosecutor to presenting rebuttal evidence about the victim. Thus, if the defendant presents testimony that the assault victim is known as a violent person, the prosecutor is then free to introduce testimony that the victim is known as a peaceful person.

Anytime a person testifies as a witness, character evidence relating to the propensity of that witness, to tell the truth, becomes relevant. Any party may attack the credibility, or truthfulness, of a witness. If a witness’s character for truthfulness is attacked during a hearing or trial, evidence regarding that witness’s character for either truthfulness or untruthfulness is admissible. Thus, if a witness is accused of not telling the truth on the witness stand, then evidence may be entered to show that the witness has the character trait of truthfulness.

The two main ways that this can be shown is through testimony regarding that witness’s reputation in the community and opinion testimony. For example, if Witness Wendy is accused of not telling the truth about the number of drinks she observed the defendant consume at a bar, then her friend James may testify that Witness Wendy is known in their community as being an honest and truthful person. The credibility of a witness may also be attacked with evidence of certain criminal convictions, particularly convictions involving a dishonest act or false statement.

Frequently, parties may wish to introduce evidence regarding other crimes, wrongs, or acts committed by parties. This cannot be used as character evidence when offered to show that the person acted by that character trait on a particular occasion. A plaintiff bringing a negligence suit, for example, may wish to show that the defendant was found to have acted negligently three years ago in a separate legal action. The plaintiff may argue that this evidence is relevant because that prior case was a negligence case very similar to the current case. The plaintiff is seeking to show that the respondent has the character trait of negligence and, thus, acted negligently on the occasion at issue in the current case. This type of evidence is not permitted because it violates the basic rule against character evidence.

5.5 Exclusionary Rule to Evidence, Authentication, Chain of Custody, Digital Evidence

The exclusionary rule prevents the government from using most evidence gathered in violation of the United States Constitution. The decision in Mapp v. Ohio established that the exclusionary rule applies to evidence gained from an unreasonable search or seizure in violation of the Fourth Amendment. The decision in Miranda v. Arizona established that the exclusionary rule applies to improperly elicited self-incriminatory statements gathered in violation of the Fifth Amendment and to evidence gained in situations where the government violated the defendant's Sixth Amendment right to counsel.

If evidence that falls within the scope of the exclusionary rule led law enforcement to other evidence, which they would not otherwise have located, then the exclusionary rule applies to the newly discovered evidence, subject to a few exceptions. The secondarily excluded evidence is called “fruit of the poisonous tree.”

Though the rationale behind the exclusionary rule is based in constitutional rights, it is a court-created remedy and deterrent, not an independent constitutional right. The purpose of the rule is to deter law enforcement officers from conducting searches or seizures in violation of the Fourth Amendment and to provide remedies to defendants whose rights have been infringed. Courts have also carved out several exceptions to the exclusionary rule where the costs of exclusion outweigh its deterrent or remedial benefits. For example, the good-faith exception, below, does not trigger the rule because excluding the evidence would not deter police officers from violating the law in the future.

5.6 Exceptions: Good Faith Exception

Under the good-faith exception, the evidence is not excluded if it is obtained by officers who reasonably rely on a search warrant that turns out to be invalid. See Arizona v. Evans. Also, in Davis v. U.S., the U.S. Supreme Court ruled that the exclusionary rule does not apply when the police conduct a search in reliance on binding appellate precedent allowing the search. Under Illinois v. Krull, evidence may be admissible if the officers rely on a statute that is later invalidated. In Herring v. U.S., the Court found that the good-faith exception to the exclusionary rule applies when police employees erred in maintaining records in a warrant database.

Independent Source Doctrine

Evidence initially obtained during an unlawful search or seizure may later be admissible if the evidence is later obtained through a constitutionally valid search or seizure. Murray v. U.S. is the modern interpretation of the independent source doctrine, originally adopted in Nix v. Williams. Additionally, some courts recognize an "expanded" doctrine, in which a partially tainted warrant is upheld if, after excluding the tainted information that leads to its issuance, the remaining untainted information establishes probable cause sufficient to justify its issuance. See, for example, the South Dakota Supreme Court decision in State v. Boll.

Inevitable Discovery Doctrine

Related to the independent source doctrine, above, and also adopted in Nix v. Williams, the inevitable discovery doctrine allows admission of evidence that was discovered in an unlawful search or seizure if it would have been discovered in the same condition anyway, by an independent line of investigation that was already being pursued when the unlawful search or seizure occurred.

Attenuation Doctrine

In cases where the relationship between the evidence challenged and the unconstitutional conduct is too remote and attenuated, the evidence may be admissible. See Utah v. Strieff. Brown v. Illinois, cited in Strieff, articulated three factors for the courts to consider when determining attenuation: temporal proximity, the presence of intervening circumstances, and the purpose and flagrancy of the official misconduct.

Evidence Admissible for Impeachment

The exclusionary rule does not prevent the government from introducing illegally gathered evidence to “impeach,” or attack the credibility of, defendants’ testimony at trial. The Supreme Court recognized this exception in Harris v. New York as a truth-testing device to prevent perjury. Even when the government suspects perjury, however, it may only use tainted evidence for impeachment, and may not use it to show guilt.

Qualified Immunity

Due to qualified immunity, the exclusionary rule is often a defendant's only remedy when police officers conduct an unreasonable search or violate their Miranda rights. Even if officers violate a defendant's constitutional or statutory rights, qualified immunity protects the officers from a lawsuit unless no reasonable officer would believe that the officers' conduct was legal.

5.7 Professional Service, Integrity, Conflict of Interest, Due Care

Professional services are occupations in the service sector requiring special training in the arts or sciences. Some professional services require holding professional degrees and licenses and they also require specific skills such as architects, accountants, engineers, doctors, lawyers, and teachers.

A professional service is an intangible product that a contractor or product vendor sells to help a customer manage a specific part of their business. Because professional service providers have specialized knowledge about niche areas of interest, such as law, marketing, or accounting, they allow the customer to focus on core business concerns. Unlike a consultant, who may only be responsible for providing advice, a professional service provider may also be responsible for the result.

Professional services providers can be found in several public and private subsectors. For some providers, professional services may be a primary line of business, while for others, professional services may be sold as an add-on value driver to a core offering. Historically, professional services have been invoiced on a billable-hours basis. More recently, however, many professional service providers have moved to a fixed price or subscription-based pricing model. For providers that offer operations and maintenance services, this pattern may also be observed in the transition from break/fix work to managed services.

Essentially, professional services involve a range of different occupations that provide support to businesses in the form of advice or performing tertiary roles.

Roles in the professional services sector

Helping clients manage, support, and grow their businesses covers a wide array of areas. Some of the key parts of professional services include:

i. Audit - reviewing the accounts of companies and organisations to ensure the validity and legality of their financial records
ii. Tax - advising businesses on how to be more tax-efficient or completing tax returns
iii. Actuarial - calculating and assessing future financial risks and making predictions using models and statistics
iv. Financial Advisory - advising businesses on investments and how to best manage their money
v. Consulting - working with businesses to reduce costs or reorganize for maximum efficiency

5.7 Key professional services firms: The 'Big Four'

The overwhelming majority of Professional Services work is undertaken by four main firms, known as 'The Big Four'. These are Deloitte, EY, KPMG , and PwC. Together they audit 99% of the companies in the FTSE 100, and 96% of the companies in the FTSE 250 Index.

The professional services industry takes on a huge number of graduates from a range of degrees. All of the 'Big Four' recruit on a rolling basis, meaning there are no strict deadlines, but once positions are filled they are then closed so it is advisable to apply early, especially for competitive paths like consulting.

The real business of professional services is the expertise of their people, so a lot of emphasis is put on personal and professional development as you work, to make you a more useful, and marketable, member of the team. This is therefore a great career for ambitious and motivated graduates who are always looking to improve their skills.

As a contractor or vendor grows its professional services business, it may need more than spreadsheets to manage the business. In such a case, a company may deploy professional services automation (PSA) software to oversee projects, manage resources and track time and billing. When providers offer operations and maintenance services, this software may be integrated into other key service providers' automation products such as remote monitoring and management. Today, many PSA products are available as hosted software-as-a-service offerings.

Many industry groupings have been used for academic research when looking at professional services firms, making a clear definition hard to attain. Some work has been directed at better defining professional service firms (PSF). In particular, Von Nordenflycht generated a taxonomy of professional service firms, defining four types:

i. Classic PSFs (e.g. law and accounting firms): characterized by a high knowledge intensity, a professionalized workforce, and low capital intensity
ii. Professional campuses (e.g. hospitals): characterized by a high knowledge intensity, a professionalized workforce, and high capital intensity
iii. Neo-PSFs (e.g. management consultants): characterised by high knowledge intensity and a low capital intensity
iv. Technology developers (e.g. R&D firms, biotechs): characterised by high knowledge intensity and high capital intensity.

Frameworks such as this aid the ability of managers and academics to better understand how such firms manage themselves and how to judge benchmark practices.

Integrity

Integrity is the practice of being honest and showing a consistent and uncompromising adherence to strong moral and ethical principles and values. Integrity is a characteristic that many of us value in ourselves, and it's one we look for consistency in our leaders

In ethics, integrity is regarded as the honesty and truthfulness or accuracy of one's actions.

a. firm adherence to a code of especially moral or artistic values: incorruptibility.

b. an unimpaired condition, soundness.

c. the quality or state of being complete or undivided: completeness

Your integrity is what determines your reputation, and, just as this proverb states, all it can take is a single bad choice to destroy a lifetime's worth of integrity. So, how can you work on developing and preserving your integrity?

Step 1: Define Your Values

You can't live by values if you don't know what you truly believe in. So, start by defining your core values. These are the values that, no matter what the consequence, you're not going to compromise on.

Step 2: Analyze Every Choice You Make

Often, people cut corners or make bad choices when they think no one is watching. Having integrity means that, no matter what, you make the right choice – especially when no one is watching!

You'll usually know what's right and wrong, although sometimes you might need some quiet time to figure it out. If you're not sure what the right choice is, ask yourself these two questions:

1. "If my choice was printed on the front page of the newspaper for everyone to see, would I feel OK about it?"
2. "If I make this choice, will I feel OK with myself afterward?"

Remember, honesty and integrity aren't values that you should live by when it's convenient; they're values that you should live by all the time. This includes the big choices and the little choices – the choices everyone sees, and the choices that no one sees.

Step 3: Encourage Integrity

People with integrity often have the same characteristics: they're humble, they have a strong sense of self, they have high self-esteem, and they're self-confident. These characteristics are important, because, sometimes, you'll be under intense pressure from others to make the wrong choice.

Work on building and improving these characteristics within yourself, so that you have the strength and courage to do the right thing when the time comes. Build your self-confidence and self-esteem, and work on developing character. Spend time getting to know yourself, and what you believe in. Develop friendships and work relationships with others who demonstrate integrity, and who will support your decisions

MODULE SIX: FORENSIC DOCUMENTATION AND REPORTING

Introduction

6.1 Forensic Document and Documentation An abundance of crucial information can be gleaned from documents related to a criminal or civil case.

The suicide note found next to the deceased—was it written by a killer trying to cover up his crime? The bank robber's hold-up note—does it contain invisible impressions that indicate the address of the hideout? The will of a wealthy person—was it altered so a relative could receive a windfall? The discipline of forensic document examination, often referred to as "questioned documents," is frequently associated with white-collar crimes such as check fraud; however, in practice, this area of forensic science can be used in a wide array of cases from medical malpractice to art forgeries to homicides.

Armed with sophisticated technology, forensic document examiners can peer into the visible and invisible marks on a document to extract an abundance of details that may verify the authenticity or provide additional information crucial to the investigation. The digital age has made the work of forensic document examiners even more important. With the availability of powerful software programs such as Adobe® Photoshop®, Acrobat®, and others, it has become significantly easier for criminals to create and manipulate all manner of fraudulent documents from contracts to currency

Forensic Document Examination (FDE) is a forensic science discipline in which expert examiners evaluate documents disputed in the legal system. "Documents" may be defined broadly as being any material bearing marks, signs, or symbols intended to convey a message or meaning to someone. Questioned document examinations involve a comparison of the document, or aspects of the document, to a set of known standards (i.e., authentic specimens). The goal of the forensic document examiner is to systematically evaluate the attributes and characteristics of a document to reveal how it was prepared or how it may have been modified.

Traditionally, forensic document examination units are part of a forensic science laboratory. These units examine and compare handwriting, typewriting, printing processes, inks, and other document characteristics that may or may not include document security features

Training and Qualifications of a Forensic Document Examiner

Two internationally recognized programs accredit forensic laboratories: The American Society of Crime Laboratory Directors Laboratory Accreditation Board and ASI-ASQ National Accreditation Board/FQS. These accrediting programs ensure that forensic laboratories meet established quality standards, and employ expert forensic investigators. Forensic document examinations should be conducted by a Forensic Document Examiner (FDE or "Document Examiner"). Currently, no federal licensing exists for forensic document examiners; however, in the United States, the American Board of Forensic Document Examiners (ABFDE) has established guidelines and issues a certificate of qualification. The ABFDE requires that examiners obtain a minimum of a baccalaureate degree and complete a two-year, full-time training program or apprenticeship in a recognized forensic laboratory or with an established examiner in private practice. The National Association of Document Examiners (NADE) also was established in 1979 to promote the interests of document examiners. Peer group tasting is also available through the American Society of Forensic Document Examiners (ABFDE) and the Forensic Science Society (FSS). Although there are no specific college majors or degrees in forensic examination, scientific training is encouraged and continuing education courses are required to remain in good standing with the aforementioned boards.

Standards of Practice

The American Society for Testing and Materials (ASTM) publishes standards for methods and procedures used by Forensic Document Examiners. ASTM International is a global leader in the development and delivery of voluntary consensus standards, to improve product quality, enhance health and safety, strengthen market access and trade, and build consumer confidence. Concerning forensic standards, ASTM describes four components to Forensic Document Examination, indicating that an examiner "makes scientific examinations, comparisons, and analyses of documents to:

a. Establish genuineness or non-genuineness, or to expose forgery, or to reveal alterations, additions, or deletions,
b. Identify or eliminate persons as the source of handwriting,

c. Identify or eliminate the source of typewriting or other impression, marks, or relative evidence, and

d. Write reports or give testimony, when needed, to aid the users of the examiner's services in understanding the examiner's findings.

The Scientific Working Group for Forensic Document Examination (SWGFDE) is another organization that develops standards in the field of forensic document examination. SWGDOC began in 1997 and is composed of private examiners and forensic laboratories throughout the United States

6.2 Sources of Questioned Documents Subjected to Forensic Document Examination.

In forensic science, questioned document examination (QDE) is the examination of documents potentially disputed in a court of law. Its primary purpose is to provide evidence about a suspicious or questionable document using scientific processes and methods. Evidence might include alterations, the chain of possession, damage to the document, forgery, origin, authenticity, or other questions that come up when a document is challenged in court.

Many QD examinations involve a comparison of the questioned document, or components of the document, to a set of known standards. The most common type of examination involves handwriting wherein the examiner tries to address concerns about potential authorship.

A document examiner is often asked to determine if a questioned item originated from the same source as the known item(s), then present their opinion on the matter in court as an expert witness. Other common tasks include determining what has happened to a document, determining when a document was produced, or deciphering information on the document that has been obscured, obliterated, or erased.

The discipline is known by many names including 'forensic document examination', 'document examination', 'diplomatics', 'handwriting examination', or sometimes 'handwriting analysis', although the latter term is not often used as it may be confused with graphology. Likewise, a forensic document examiner (FDE) is not to be confused with a graphologist, and vice versa.

Many FDEs receive extensive training in all of the aspects of the discipline. As a result, they are competent to address a wide variety of questions about document evidence. However, this "broad specialization" approach has not been universally adopted.

In some locales, a clear distinction is made between the terms 'forensic document examiner' and a 'forensic handwriting expert/examiner'. In such cases, the former term refers to examiners who focus on non-handwriting examination types while the latter refers to those trained exclusively to do handwriting examinations.

Even in places where the more general meaning is common, such as North America or Australia, many individuals have specialized training only in relatively limited areas. As the terminology varies from jurisdiction to jurisdiction, it is important to clarify the meaning of the title used by any individual professing to be a "forensic document examiners.

6.3. Scope of Forensic Document Examination

A forensic document examiner is intimately linked to the legal system as a forensic scientist. Forensic science is the application of science to address issues under consideration in the legal system. FDEs examine items (documents) that form part of a case that may or may not come before a court of law.

Common criminal charges involved in a document examination case fall into the "white-collar crime" category. These include identity theft, forgery, counterfeiting, fraud, or uttering a forged document. Questioned documents are often important in other contexts simply because documents are used in so many contexts and for so many purposes. For example, a person may commit murder and forge a suicide note. This is an example where a document is produced directly as a fundamental part of a crime. More often a questioned document is simply the by-product of normal day-to-day business or personal activities.

The American Society for Testing and Materials, International (ASTM) publishes standards for many methods and procedures used by FDEs. E30.02 was the ASTM subcommittee for Questioned Documents. These guides were under the jurisdiction of ASTM Committee E30 on Forensic Sciences and the direct responsibility of Subcommittee E30.02 on Questioned Documents. The ASTM Questioned Document Section has been disbanded.

All of the Standards are now available through SWGDOC (The Scientific Working Group for Document Examiners). The Standard Guide for Scope of Work of Forensic Document Examiners indicates there are four components to the work of a forensic document examiner.

It states that an examiner "makes scientific examinations, comparisons, and analyses of documents to:

a. establish genuineness or non-genuineness, or to expose forgery, or to reveal alterations, additions, or deletions;
b. identify or eliminate persons as the source of handwriting;
c. identify or eliminate the source of typewriting or other impression, marks, or relative evidence; and
d. write reports or give testimony, when needed, to aid the users of the examiner's services in understanding the examiner's findings."

Some FDEs limit their work to the examination and comparison of handwriting; most inspect and examine the whole document by this ASTM standard.

6.5 Types of document examined

Documents feature prominently in all manner of business and personal affairs. Almost any type of document may become disputed in an investigation or litigation. For example, a questioned document may be a sheet of paper bearing handwriting or mechanically-produced text such as a ransom note, a forged cheque, or a business contract. It may be material not normally thought of as a 'document'. FDEs define the word "document" in a very broad sense as being any material bearing marks, signs, or symbols intended to convey a message or meaning to someone. This encompasses traditional paper documents but also includes things like graffiti on a wall, stamp impressions on meat products, or covert markings hidden in a written letter, among others.

Evaluation of Handwriting Features in Photocopied Signatures

The photocopies are considered as the best possible evidence in the situations when the original documents are either lost or damaged. A photocopy cannot reproduce all the details of the original document. In the present study, an attempt has been made to study the handwriting features from the non-original documents. The outcomes of this study are very satisfactory and encouraging and could help in the examination of photocopied samples.

The invention of advanced and modern reproduction techniques such as photocopiers or all-in-one machines that can scan, copy and print documents, lead to the acceptance of non-original documents as evidence. The document examiners are very often requested to examine non-original documents especially in cases where it is claimed that the original document has been lost or destroyed or is not available. Sometimes, original documents exist but are not available for use e.g. they may be present in court records at distant jurisdiction. The photocopied documents are often submitted to the forensic document examiners to determine the authorship of writing or signatures. The photocopies are the filtered images of original information; therefore, this photocopied document does not produce handwriting details as in original documents. Some examiners declined to express a positive conclusion for the photocopied signature/handwriting because the copying process may have concealed or introduced evidence of simulation. At the same time, others furnished a conditional opinion stating that the same was based on the assumption that these non-original documents were the true reproduction of the original documents

Some of the common types of questioned documents and scenarios subjected to forensic document examination are:

i. Wills;
ii. Cheques;
iii. Bank Drafts;
iv. Agreements;
v. Receipts;
vi. Identity Theft;
vii. Forgeries;
viii. Counterfeiting;
ix. Suicides;
x. Homicides;
xi. Surface features;
xii. Latent images;
xiii. Alterations;
xiv. Watermarks; and

xv. Ink stamps.

Examples of this type of evidence include receipts, gift certificates, images of checks, letters, mortgage documents, lease agreements, business memorandums, and employment documents. A forensic document examiner can assist you in identifying the imaging process used to create a questioned document.

6.6 Principles of Forensic Document Examination

Forensic document examiners often deal with questions of document authenticity. To determine whether a document is genuine, an examiner may attempt to confirm who created the document, determine the timeframe in which it was created, identify the materials used in its preparation or uncover modifications to the original text. Documents can be examined for evidence of alterations, obliterations, erasures, and page substitutions. Or the examiner can study the methods, materials, or machines that created the document, providing key information that can identify or narrow the possible sources of the document.

The ink, paper, writing tools, ribbons, stamps, and seals used in the production of the document may all reveal important clues. The examiner may even discover valuable evidence in a document's invisible impressions. A key element of document examination focuses on handwriting. Forensic examination and comparison of handwriting, which includes hand printing and signatures, is based on three main principles:

i. Given a sufficient amount of handwriting, no two skilled writers exhibit identical handwriting features;

ii. Every person has a range of natural variation to his or her writing;

iii. No writer can exceed his or her skill level (i.e., it would not be possible for a marginally literate person who has only learned to produce very basic hand-printed letters to execute perfectly formed, highly skilled cursive writing).

Computer databases maintained by the U.S. Secret Service, German Federal Police, and Federal Bureau of Investigation contain handwriting samples from hundreds of thousands of writers. Comparisons of these databases have not identified two individuals who have the same combination of handwriting characteristics, adding to the authenticity of handwriting as a solid form of evidence.

6.7 Why and when is forensic document examination used?

Since documents are part of daily life, forensic document examiners work on a wide variety of cases. Forensic document examiners are called to investigate the authenticity of documents in situations such as:

i. Forgeries;
ii. Counterfeiting;
iii. identity theft;
iv. fraud;
v. suicides;
vi. homicides;
vii. bank robberies;
viii. kidnappings;
ix. extortion;
x. stalking;
xi. contested wills;
xii. contested contracts;
xiii. medical malpractice; and
xiv. title/deed lawsuits.

Forensic document examiners are most frequently asked to resolve questions of authorship. Is the signature on the mortgage loan genuine? Who wrote the anonymous note? Did the deceased sign the will? By comparing documents found at a crime scene to a suspect's known writing samples, the forensic document examiner can help confirm who wrote the note and include or exclude suspects from the investigation. Ransom Note Nabs Kidnapper A 1956 kidnapping case from Long Island, New York, helps illustrate the key role forensic document examination can play in an investigation. In this case, a one-month-old child was taken from his home and a ransom note was found in the baby's carriage, supposedly left by the child's babysitter.

Investigators discovered distinguishing characteristics in the way the writer formed 16 letters of the alphabet, most notably the lowercase "m", which resembled a sideways "z". Investigators searched through nearly two million documents looking for similar writing until a probation officer found in his files documents written by a 31-year-old auto mechanic with the same peculiar "m". Document examiners were able to conclusively match the ransom note to the suspect's handwriting, helping to secure a conviction.

Fraudulent Checks

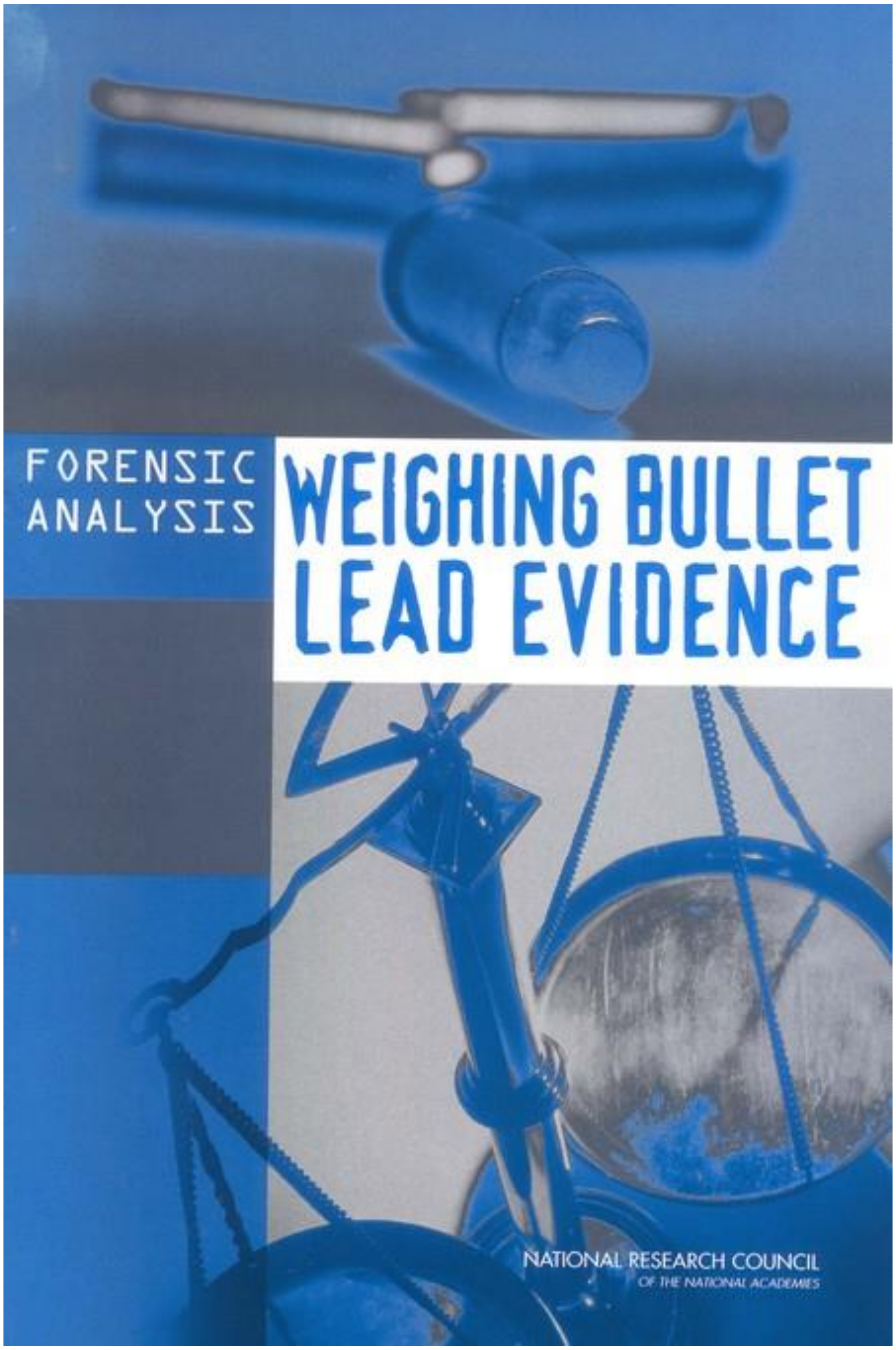
A common problem brought to forensic document examiners involves alterations, especially to legal documents. For instance, if someone altered a check to increase its amount, examiners may be able to determine this by comparing the way the inks from different pens react when subjected to infrared radiation. In the example below, a check made out to "Cash" for N1,000 has been altered by changing the "1" to a "9" and adding a recipient's name. Although the black inks appear the same in visible light when subjected to certain frequencies of infrared light, the ink used to prepare the genuine check reacts differently than the ink used to alter the check, making the alteration obvious.

Forensic Reporting

A forensic report that is accurate, complete, and professionally drafted is key to enable users to act on the report, whether it be management for addressing culture and control weaknesses, to institute actions against suspects, or to make informed decisions. A properly drafted report is also crucial to withstand scrutiny and cross-examination in dispute resolution forums.

Adding that writing in English does not come naturally to most of us (whose first languages are one of the other 10 official languages); it becomes clear that report writing can easily become a mountain for the drafter and a headache for the reviewer.

These presentations provided practical and simple principles and guidelines in two combined disciplines of English business writing, and how to plan, structure, and write a forensic report. Delegates learned how to deliver reports that convey a complete and accurate message of the investigation conducted, containing clear and concise conclusions and recommendations; through professional business English.



Importance of a Forensic Accounting Expert Witness

For corporate fraud investigations to marital asset disputes to a myriad of other financial issues in between, legal proceedings often require an expert to analyze, investigate, and interpret complex financial data and information. A forensic accountant has the unique knowledge and skill set that will offer a legal matter crucial insight and analysis needed to resolve the dispute at hand. Some of the most notable tasks of a forensic accounting expert witness are things like gathering accounting evidence, conducting investigations into the alleged fraud, analyzing financial documents covered by litigation, and verifying proper adherence to Generally Accepted Accounting Principles (GAAP).

Utilizing their specialized knowledge, forensic accountants can contribute to the legal proceedings in a way that is fact-based and impactful. In doing so, forensic accounting is imperative when damages are difficult to prove or determine. A forensic accounting expert witness might be used at each stage of the litigation process. Depending upon the specific case, a forensic accountant might be called upon during:

a. Pretrial: a forensic accountant can help the legal team with guidance during discovery and will often write a report at that stage regarding their findings, supporting facts and evidence, establishing causation, creating general strategy, and organization of the information supporting the case.
b. Trial Support: while many cases end in a settlement before trial, the approach must assume a trial is happening. Therefore, a forensic accountant expert witness will prepare for their testimony and gather any exhibits necessary.

Forensic accountant expert witnesses play a vital role in the litigation process, even in the event of a settlement. Expert witness engagements include any situation where a member of the firm renders a professional opinion in deposition or at trial. The expert’s opinion and work product are subject to discovery and are open to cross-examination.

Calling upon their experience and expertise, the forensic accountant is tasked with the responsibility to interpret accounting jargon, offer their investigative findings, and communicate with the court in a straightforward, honest manner. Attorneys lean heavily on forensic accounting to prove their cases using a knowledgebase outside of their own. As such, forensic accountant expert witnesses are extremely important to the legal proceedings and truly invaluable to the attorney who calls upon their expertise

MODULE SEVEN: FRAUD MANAGEMENT

Introduction

7.1 What is Fraud?

Fraud is a deliberate act (or failure to act) to obtain an unauthorized benefit, either for oneself or for the institution, by using deception or false suggestions or suppression of truth or other unethical means, which are believed and relied upon by others.

Fraud is a deliberate act (or failure to act) to obtain an unauthorized benefit, either for oneself or for the institution, by using deception or false suggestions or suppression of truth or other unethical means, which are believed and relied upon by others. Depriving another person or the institution of a benefit to which he/she/it is entitled by using any of the means described above also constitutes fraud.

Examples of fraudulent acts include, but are not limited to, the following:

i. Embezzlement
ii. Forgery or alteration of documents
iii. Unauthorized alteration or manipulation of computer files
iv. Fraudulent financial reporting
v. Misappropriation or misuse of University resources (e.g., funds, supplies, equipment, facilities, services, inventory, or other assets)
vi. Authorization or receipt of payment for goods not received or services not performed
vii. Authorization or receipt of unearned wages or benefits
viii. Conflict of interest, ethics violations

What is a Fraud Triangle?

Employees who commit fraud generally can do so because there is an opportunity, pressure, and rationalization.

Opportunity is generally provided through weaknesses in the internal controls.

Some examples include inadequate or no

i. Supervision and review
ii. Separation of duties
iii. Management approval

iv. System controls

Pressure (or motive) can be imposed due to

i. Personal financial problems; unforeseen expenses
ii. Personal vices/addictions such as gambling, drugs, shopping, etc.
iii. Unrealistic deadlines and performance goals

Rationalization occurs when the individual develops a justification for their fraudulent activities. The rationalization varies by case and individual.

Some examples include:

i. "I need this money and I'll pay it back when I get my paycheck."
ii. "Other people are doing it."
iii. "I didn't get a raise. The University owes me."

Breaking the Fraud Triangle is the key to fraud deterrence. Breaking the Fraud Triangle entails removing one of the elements in the fraud triangle to reduce the likelihood of fraudulent activities. "Of the three elements, removal of Opportunity is most directly affected by the system of internal controls and generally provides the most actionable route to the deterrence of fraud" (Cendrowski, Martin, Petro, The Handbook of Fraud Deterrence).

What are the Red Flags for Fraud?

Managers and employees responsible for the stewardship of University resources should be aware of the red flags for fraud. These are warning signs that may indicate that fraud risk is higher. They do not evidence that fraud is occurring. The existence of one or two flags is not something to be overly concerned about. However, if multiple flags are present and accounting irregularities or weak controls are identified, then the Internal Audit department should be contacted.

Examples of red flags include, but are not limited to, the following:

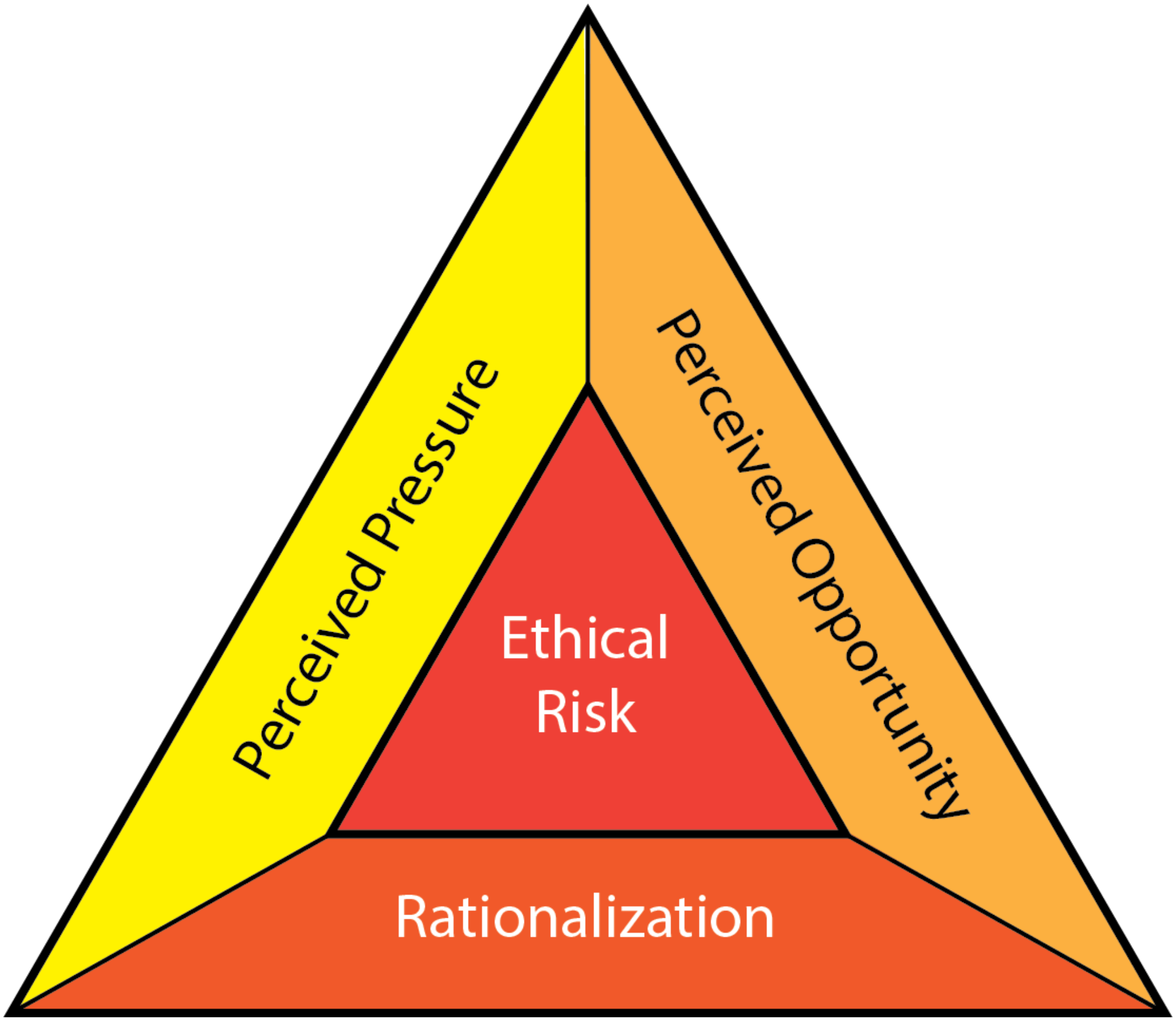
Employee Red Flags

i. Employee lifestyle changes: expensive cars, jewelry, homes, clothes
ii. Significant personal debt and credit problems

iii. Behavioral changes - These may be an indication of drugs, alcohol, gambling, or just fear of losing the job
iv. High employee turnover, especially in those areas which are more vulnerable to fraud
v. Refusal to take a vacation or sick leave
vi. Lack of segregation of duties in a vulnerable area

Management Red Flags

i. Management frequently overrides internal controls
ii. Management decisions are dominated by an individual or small group
iii. Managers display significant disrespect for regulatory bodies
iv. Policies and procedures are not documented or enforced
v. Weak internal control environment
vi. Accounting personnel are lax or inexperienced in their duties
vii. Decentralization without adequate monitoring
viii. An excessive number of checking accounts; frequent changes in banking accounts
ix. An excessive number of year-end transactions; unnecessarily convoluted transactions
x. High employee turnover rate; low employee morale
xi. Refusal to use serial numbered documents (receipts)
xii. Compensation program that is out of proportion
xiii. Photocopied or missing documents
xiv. Reluctance to provide information to, or engage in frequent disputes with, auditors



Fraud Triangle and circular model and Fraud motivators

Pictorial Reflection of Fraudulent practice

Fraud generally occurs when three conditions are present:

i. Management or employees have an incentive or are pressure.
ii. Circumstances exist that provide an opportunity for fraud to be perpetrated.
iii. Individuals involved can rationalize committing a fraudulent act.

Financial stability or profitability is threatened by economic, industry, or entity operation conditions, such as:

i. The high degree of competition or market saturation, accompanied by declining margins.
ii. High vulnerability to rapid changes, such as changes in technology, product obsolesce interest rates.
iii. Significant declines in customer demand and increasing business failures either the overall economy.

iv. Operating losses making the threat of bankruptcy, foreclosure, or hostile takeover immediate
v. Recurring negative cash flows from operations or an inability to generate cash flows from operations while reporting earnings growth.
vi. Rapid growth or unusual profitability especially compared to that of other companies in the industry.
vii. New accounting, statutory, or regulatory requirements.

Excessive pressure exists for management to meet the requirements or expectation of third parties due to the following:

i. Profitability or trend level expectations of investment analysts, institutional investors, creditors, or other external parties (particularly expectations that are unduly aggressive unrealistic), including expectations created by management in, for example, overly option press releases or annual report message.
ii. Need to obtain additional debt or equity financing to stay competitive-including financial major research and development or capital expenditures.
iii. Marginal ability to meet exchange listing requirements or debt repayment or other debt requirements.
iv. Perceived or real adverse effects of reporting poor financial results on significant pending transactions, such as business combinations or contract awards.
v. Significant financial interests in the entity.
vi. Significant portions of their compensation (for example, bonuses, stock options, and arrangements) being contingent upon achieving aggressive targets for the stock price, op results, financial position, or cash flow.

There is excessive pressure on management or operating personnel to meet financial targets set up by the board of directors or management, including sales or profitability goals.

Opportunities Factor

The nature of the industry or the entity’s operations opportunities fraudulent financial reporting that can arise from the following:

i. Significant related-party transactions not in the ordinary course of business or with relating not audited by another firm.
ii. A strong financial presence or ability to dominate a certain industry sector that allows dictating terms or conditions to suppliers or customers that may result in inappropriate or arm's-length transactions.
iii. Assets, liabilities, revenues, or expenses based on significant estimates that involve judgments or uncertainties that are difficult to corroborate.
iv. Significant, unusual, or highly complex transactions, especially those close to period-purpose difficult" substance over form" questions.
v. Significant operations are located or conducted across international borders in jurisdictions differing business environments and cultures exist.
vi. Significant bank accounts or subsidiary or branch operations in tax-haven jurisdictions there appears to be no clear business justification.

Ineffective board of directors or audit committee oversight over the financial reporting and internal control.

There is a complex or unstable organizational structure, as evidenced by the following:

i. Difficulty in determining the organization or individuals that have a controlling interest in
ii. Overly complex organizational structure involving unusual legal entities or managerial authority.
iii. High turnover of senior management, counsel, or board members.

Internal control components are deficient as a result of the following:

i. Inadequate monitoring of controls, including automated controls and controls financial reporting (where external reporting is required)
ii. High turnover rates or employment of ineffective accounting, internal audit, or information technology staff
iii. Ineffective accounting and information systems, including situations involving reportable conditions.

Attitudes/Rationalizations factor

i. Risk factors reflective of attitudes/rationalizations by board members, management employees that allow them to engage in and/or justify fraudulent financial reports not be susceptible to observation by the auditor. Nevertheless, the auditor who becomes aware of the existence of such information should consider it in identify the risks of material misstatement arising from fraudulent financial reporting.

ii. Accounting principles or the determination of significant estimates.

iii. Know the history of violations of securities laws or other laws and regulations, or claims an entity, its senior management, or board members alleging fraud or violations of laws and regulations.

iv. Excessive interest by management in maintaining or increasing the entity's stock price-earnings trend.

v. A practice by the management of committing to analysts, creditors, and other third parties aggressive or unrealistic forecasts.

vi. Management failing to correct know reportable conditions on a timely basis.

vii. An interest by management in employing inappropriate means to minimize reported ea tax-motivated reasons.

viii. Recurring attempts by management to justify marginal or inappropriate accounting on me of materiality.

Opportunities factor

Certain characteristics or circumstances may increase the susceptibility of ass misappropriation. For example, opportunities to misappropriate assets increase when there are:

i. A large amount of cash on hand or processed;
ii. Inventory items that are small in size, of high value, or in high demand;
iii. Easily convertible assets, such as bearer bond, diamonds, or computer chips; and

iv. Fixed assets that are small in size, marketable, or lacking observable identification of ownership.

Inadequate internal control over assets may increase the susceptibility of misappropriation of those assets.

For example, misappropriation of assets may occur because there are:

i. Inadequate segregation of duties or independent checks;
ii. Inadequate recordkeeping of assets;
iii. Inadequate system of authorization and approval of transactions (e. g, in purchasing);
iv. Inadequate physical safeguards over cash, investments, inventory, or fixed assets;
v. Lack of complete and timely reconciliations of assets;
vi. Lack of timely and appropriate documentation of transactions (e. g, credits for merchant returns);
vii. Lack of mandatory vacations for employees performing key control functions;
viii. Inadequate management understanding of information technology, which enables information technology employees to perpetuate a misappropriation; and
ix. Inadequate access controls over automated records, including controls over and reviews computer systems event logs.

Attitudes/rationalizations factor

Risk factors reflective of employee attitudes/rationalizations that allow them to misappropriations of assets are generally not susceptible to observation by the nevertheless, the auditor who becomes aware of the existence of such information should consider it in identifying the risks of material misstatement arising from misappropriation assets.

For example, auditors may become aware of the following attitudes or behavior of em who have access to assets susceptible to misappropriation:

1. Disregard the need for monitoring or reducing risks related to misappropriations of

2. Disregard for internal control over misappropriation of assets by assets by overriding existing cor failing to correct known internal control deficiencies.
3. Behavior indicating displeasure or dissatisfaction with the company or its treatment of the employee.
4. Changes in behavior or lifestyle that may indicate assets have been misappropriated.

What Should You Do If You Suspect Fraud or Misconduct?

Any employee who suspects that dishonest, unethical, or fraudulent activity is occurring should not attempt to personally contact the suspected individual to determine facts, conduct investigations or interviews /interrogations. Care must be taken to avoid mistaken accusations or alerting suspected individuals that an investigation may be underway.

The system should have a Fraud Policy Statement and a procedure established to provide ways to report behaviors that may be fraudulent or unethical. Constantly review the policy to determine the appropriate action for the situation. The identity of the reporting individual will be kept confidential or anonymous as explained in the whistleblower protection provisions of the Fraud Policy. A Fraud Hotline link is also provided from this page of the web site.

7.2 Types and Contents of Fraud

Fraud is a broad legal term referring to dishonest acts that intentionally use deception to illegally deprive another person or entity of money, property, or legal rights.

Unlike the crime of theft, which involves the taking of something of value through force or stealth, fraud relies on the use of intentional misrepresentation of fact to accomplish the taking.

Fraud: Key Takeaways

1. Fraud is the intentional use of false or misleading information in an attempt to illegally deprive another person or entity of money, property, or legal rights.
2. To constitute fraud, the party making the false statement must know or believe that it is untrue or incorrect and intended to deceive the other party.
3. Fraud may be prosecuted as both a criminal and civil offense.

4. Criminal punishments for fraud can include a combination of prison, fines, and restitution to victims.

In proven cases of fraud, the perpetrator—a person who carries out a harmful, illegal, or immoral act—may be found to have committed either a criminal offense or a civil wrong.

In committing fraud, perpetrators may be seeking either monetary or non-monetary assets by deliberately making false statements. For example, knowingly lying about one’s age to obtain a driver's license, criminal history to get a job, or income to get a loan may be fraudulent acts.

A fraudulent act should not be confused with a “hoax”—a deliberate deception or false statement made without any intention of gain or of materially damaging another person.

Perpetrators of criminal fraud may be punished by fines and/or imprisonment. Victims of civil fraud may file lawsuits against the perpetrator seeking monetary compensation.

To win a lawsuit claiming civil fraud, the victim must have suffered actual damages. In other words, the fraud must have been successful. Criminal fraud, on the other hand, can be prosecuted even if the fraud failed.

Also, a single fraudulent act may be prosecuted as both a criminal and civil offense. Thus, a person convicted of fraud in criminal court may also be sued in civil court by the victim or victims.

Fraud is a serious legal matter. Persons who believe they have been the victim of fraud, or have been accused of committing fraud, should always seek the expertise of a qualified attorney.

7.3 Fraud Motivators: Necessary Elements of Fraud

While the specifics of laws against fraud vary from state to state and at the federal level, there are five essential elements necessary to prove in court that a crime of fraud has been committed:

1. **Misrepresentation of a material fact:** A false statement involving material and pertinent fact must be made. The gravity of the false statement should be adequate to

substantially affect the victim's decisions and actions. For example, the false statement contributes to a person's decision to purchase a product or approve a loan.

2. **Knowledge of falsehood:** The party making the false statement must know or believe that it is untrue or incorrect.
3. **Intent to deceive:** The false statement must have been made expressly with the intent of deceiving and influencing the victim.
4. **Reasonable reliance by the victim:** The level to which the victim relies on the false statement must be reasonable in the eyes of the court. Reliance on rhetorical, outrageous, or impossible statements or claims may not amount to "reasonable" reliance. However, persons who are known to be illiterate, incompetent, or otherwise mentally diminished may be awarded civil damages if the perpetrator knowingly took advantage of their condition.
5. **Actual loss or injury suffered:** The victim suffered some actual loss as a direct result of their dependence on the false statement.

Statements of Opinion vs. Outright Lies

Not all false statements are legally fraudulent. Statements of opinion or belief, since they are not statements of fact, may not constitute fraud.

For example, a salesman's statement, "Madam, this is the best television set on the market today," while possibly untrue, is an unsubstantiated statement of opinion rather than fact, which a "reasonable" shopper might be expected to disregard as mere sales hyperbole.

Common Types of Fraud

1. **Mail fraud and wire fraud:** Using regular mail, or any form of wired communications technology, including telephones and the internet as part of any fraudulent scheme. Mail and wire fraud are often added as charges filed in other related crimes. For example, since the mail or telephone are typically used in attempting to arrange bribes of judges or other government officials, federal prosecutors may add charges of wire or mail fraud in addition to charges of bribery and corruption. Similarly, wire or mail fraud charges are often applied in the prosecution of racketeering and RICO Act violations.

2. **Tax fraud:** Takes place whenever a taxpayer attempts to avoid or evade paying federal income taxes. Examples of tax fraud include knowingly underreporting taxable income, overestimating business deductions, and simply not filing a tax return.
3. **Stock and securities fraud:** Typically involves the selling of stocks, commodities, and other securities through deceptive practices. Examples of securities fraud include Ponzi or pyramid schemes, broker embezzlement, and foreign currency fraud. The fraud usually occurs when stockbrokers or investment banks convince people to make investments based on false or exaggerated information, or on "insider trading" information not available to the public.
4. **Medicare and Medicaid fraud:** Usually takes place when hospitals, health care companies, or individual health care providers try to collect illegitimate repayments from the government by overbilling for services, or by performing unnecessary tests or medical procedures.

Fraud comes in many forms from many sources. Popularly known as "scams," fraudulent offers may be made personally or arrive through regular mail, email, text messages, telemarketing, and the internet.

One of the most common types of fraud is check fraud**,** the use of paper checks to commit fraud. One of the main goals of check fraud is identity theft—the gathering and use of personal financial information for illegal purposes.

From the front of every check written, the identity thief can get the victim's: name, address, phone number, bank name, bank routing number, bank ccount number, and signature. Also, the store may add more personal information, such as date of birth and driver's license number. This is why identity theft prevention experts recommend against using paper checks whenever possible.

Common varieties of check fraud include:

1. Check theft: Stealing checks for fraudulent purposes.
2. Check forgery: Signing a check using the actual drawer's signature without their authorization or endorsing a check not payable to the endorser, both usually done using stolen checks. Counterfeit checks are considered the equivalent of forged checks.
3. Check to kite: Writing a check with the intent of accessing funds that have not yet been deposited in the checking account. Also referred to as "floating" a check, kiting is the misuse of checks as a form of unauthorized credit.
4. Paper hanging: Writing checks on accounts that are known by the perpetrator to have been closed.
5. Check washing: Chemically erasing the signature or other handwritten details from checks to allow them to be rewritten.
6. Check to counterfeit: Illegally printing checks using information from the victim's account

7.4 Theories of Fraud and Criminality

Fraud and white-collar crimes have assumed different dimensions, albeit with increased sophistication within the Nigerian banking industry. Hence forgeries, deceit, and other unwholesome practices have continued to thrive. Unfortunately, there is no definitive answer as to why people commit fraud.

Good knowledge of the symptoms of occurring fraud is essential for us to know so we can learn to prevent it. In line with this thought, it has become necessary to review the existing theories on fraud and to ascertain if there are inherent clues or red flags that can be drawn from them to assist banks in the fight against fraud.

There is no gain in stating that any meaningful attempt at stopping the menace of financial crimes will be a welcome development in the long run as managing fraud instead of preventing it might be so dangerous, it poses an institution's ongoing concern. Thus, the broad objective is to ascertain means and ways for preventing fraud in Nigeria. A vast array of fraud theories are being reviewed and reconciled with the pattern of financial crimes in Nigeria. The research identified the influence of power, personal gain and self-control, loss aversion and risk acceptance, rationalization, and emotion as the drivers or propensity to commit fraud. We must learn our lessons from a past misdemeanor, as this will lead to a reduction in the re-occurrence of frauds. Thus, the essential lessons learned from this study include the need for effective corporate governance, beefing up of internal control measures, and objectively structured mechanisms to regulate and supervise the Nigerian system. There is also an urgent need for the government's commitment to wage an all-out war against crime and to create a new healthy culture of integrity and honesty in all aspects of life with zero tolerance for fraud and white-collar crimes in Nigeria. Our society also needs to inculcate the principle of self-control/ restraint in individuals.

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7.5 Accounting Fraud: Behavioral Pattern of fraudsters

Accounting fraud is the intentional manipulation of financial statements to create a false appearance of corporate financial health. Furthermore, it involves an employee, accountant, or the organization itself misleading investors and shareholders. A company can falsify its financial statements by overstating its revenue, not recording expenses, and misstating assets and liabilities.

Key Notes

1. Accounting fraud is the illegal alteration of a company's financial statements to manipulate a company's apparent health or to hide profits or losses.
2. Overstating revenue, failing to record expenses, and misstating assets and liabilities are all ways to commit accounting fraud.
3. The Enron scandal is one of the most famous examples of accounting fraud in history.

Understanding Accounting Fraud

For accounting fraud to take place, a firm must deliberately falsify financial records. Consider a firm that makes an estimate that must be revised later. No accounting fraud has taken place because the errors were not deliberate. Now suppose the CEO of a publicly-traded company knowingly makes false statements about the firm's prospects. The Securities and Exchange Commission (SEC) may well charge that CEO with fraud. However, it is not accounting fraud because no financial records were falsified.

Always be careful when alleging accounting fraud. Fraud requires intent, which can be difficult to prove.

Overstating Revenue

A company can commit accounting fraud if it overstates its revenue. Suppose company ABC is operating at a loss and not generating enough revenue. To cover up this situation, the firm might claim to be producing more income on financial statements than it does in reality. On its statements, the company's profits would be inflated. If the company overstates its revenues, it would drive up the firm's share price and create a false image of financial health.

Unrecorded Expenses

Another type of accounting fraud takes place when a company does not record its expenses. The company's net income is overstated, and its costs are understated on the income statement. This type of accounting fraud creates a false impression of how much net income a company is receiving. In reality, it may be losing money.

Misstating Assets and Liabilities

Another form of accounting fraud occurs when a company overstates its assets or understates its liabilities. For example, a company might overstate its current assets and understate its current liabilities. This type of fraud misrepresents a company's short-term liquidity.

Suppose a company has current assets of #1 million, and its current liabilities are #5 million. If the company overstates its current assets and understates its current liabilities, it is misrepresenting its liquidity. The company could state that it has #5 million in current assets and #500,000 in current liabilities. Then, potential investors will believe that the company has enough liquid assets to cover all of its liabilities.

7.7 Fraud Prevention and detection: A Real-World Example of Accounting Fraud

The Enron scandal is one of the most famous examples of accounting fraud in history. Enron used off-balance-sheet entities to hide the company's debts from investors and creditors. Although using such entities was not illegal in itself, Enron's failure to disclose the necessary details of its dealings constituted accounting fraud. As the true extent of Enron's debts became known to the public, its share price collapsed. By the end of 2001, Enron declared bankruptcy.

The consequences of accounting fraud were severe in the Enron case. Criminal charges were brought against many of the company's top executives, and some of them were sent to prison.

The scandal also eventually destroyed accounting giant Arthur Andersen LLP, which handled Enron's books.

Wire Fraud

Wire fraud is a type of fraud that involves the use of some form of telecommunications or the internet. These can include a phone call, fax, an email, a text, or social media messaging, among many other forms. Wire fraud is punishable by prison and/or fines.

1. Wire fraud is a type of fraud that involves the use of some form of telecommunications or the internet.
2. This type of crime can make use of many forms of electronic media including telephone or fax machines, email or social media, or SMS and text messaging.
3. Wire fraud often involves communications made between state or national borders and is punishable by both hefty fines and jail sentences.

Understanding Wire Fraud

The U.S. Department of Justice Criminal Resource Manual Section 941.18 U.S.C. 1343 cites these as the key elements of wire fraud:

1) that the defendant voluntarily and intentionally devised or participated in a scheme to defraud another out of money;

2) that the defendant did so with the intent to defraud;

3) that it was reasonably foreseeable that interstate wire communications would be used, and 4) that interstate wire communications were in fact used.

Wire fraud is a federal crime that carries a sentence of not more than 20 years' imprisonment and fines of up to $250,000 for individuals and $500,000 for organizations. The statute of limitations to bring a charge is five years unless the wire fraud targeted a financial institution, in which case the statute of limitations is 10 years. If the wire fraud is related to special circumstances, such as a presidentially declared state of emergency or targets a financial institution, it can carry a prison sentence of up to 30 years and a fine of up to $1 million. A person need not have defrauded someone or personally sent a fraudulent communication to be convicted of wire fraud. It is sufficient to prove the intent to defraud or acting with knowledge of fraudulent communications being sent.

Brief History of Wire Fraud

Not long ago, to perpetrate a scheme, fraudsters had to rely on the telephone and make hundreds of calls to try to hook a hapless, gullible retiree or lonely heart. The old-fashioned phone call is still employed as a means to contact prey, but today, with the awesome power of the internet to find potential victims, a fraudster's work can be done online with a few fake postings of pictures, a tale of woe, and a promise of untold riches or everlasting love—and all of this can be written with bad grammar and spelling. If you get such messages or solicitations to send $10,000 to a stranger, delete them right away. Don't become a victim of wire fraud.

Example of Wire Fraud

A common example of wire fraud is the Nigerian prince scam. In this scam, the scammer sends an email claiming to be a Nigerian prince who is down on his luck in some way, usually exiled, and can't access the fortune in his Nigerian bank account. He claims to need the target to hold his millions for him and promises to give the target a handsome sum in return. The goal of the scam is to obtain the target's financial information, which the scammer will use to access the target's money.

Although it's one of the oldest internet scams in the book, there are still consumers who fall for this rip-off or some variation of it. No matter what the circumstances – whether you receive an email from a wealthy traveler who needs your help getting back to the U.S. or your long-lost cousin who claims to be in an emergency– NEVER wire money to a stranger. Once you wire cash (especially overseas), it's virtually impossible to reverse the transaction or trace the money. If you're worried about your cousin, check separately. She'll probably be safe at home, and you can alert her that her email's been hacked.

One of these "Nigerian Princes" was recently detained and charged on December 31, 2018, and to no one's surprise, he turned out to be a 67-year-old man from Louisiana. This particular brand of the scheme first popped up in the 1980s and Americans have lost millions of dollars to the scam.

Money Laundering

Money laundering is the generic term used to describe the process by which criminals disguise the original ownership and control of the proceeds of criminal conduct by making such proceeds appear to have been derived from a legitimate source. The processes by which criminally derived property may be laundered are extensive

Money laundering is the illegal process of making large amounts of money generated by criminal activity, such as drug trafficking or terrorist funding, appear to have come from a legitimate source. The money from the criminal activity is considered dirty, and the process "launders" it to make it look clean.

Money laundering is a serious financial crime that is employed by white-collar and street-level criminals alike. Most financial companies have anti-money-laundering (AML) policies in place to detect and prevent this activity.

Key Notes:

1. Money laundering is the illegal process of making "dirty" money appear legitimate instead of ill-gotten.
2. Criminals use a wide variety of money laundering techniques to make illegally obtained funds appear clean.
3. Online banking and cryptocurrencies have made it easier for criminals to transfer and withdraw money without detection.
4. The prevention of money laundering has become an international effort and now includes terrorist funding among its targets.

How Money Laundering Works

Money laundering is essential for criminal organizations that wish to use illegally obtained money effectively. Dealing with large amounts of illegal cash is inefficient and dangerous.

Criminals need a way to deposit the money in legitimate financial institutions, yet they can only do so if it appears to come from legitimate sources.

Banks are required to report large cash transactions and other suspicious activities that might be signs of money laundering.[3]

The process of laundering money typically involves three steps: placement, layering, and integration.

a. Placement puts the "dirty money" into the legitimate financial system.
b. Layering conceals the source of the money through a series of transactions and bookkeeping tricks.
c. In the final step, integration, the now-laundered money is withdrawn from the legitimate account to be used for whatever purposes the criminals have in mind for it.

There are many ways to launder money, from the simple to the very complex. One of the most common techniques is to use a legitimate, cash-based business owned by a criminal organization. For example, if the organization owns a restaurant, it might inflate the daily cash receipts to funnel illegal cash through the restaurant and into the restaurant's bank account. After that, the funds can be withdrawn as needed. These types of businesses are often referred to as "fronts."

Money Laundering Variants

In one common form of money laundering, called smurfing (also known as "structuring"), the criminal breaks up large chunks of cash into multiple small deposits, often spreading them over many different accounts, to avoid detection. Money laundering can also be accomplished through the use of currency exchanges, wire transfers, and "mules"—cash smugglers, who sneak large amounts of cash across borders and deposit them in foreign accounts, where money-laundering enforcement is less strict.

Other money-laundering methods involve investing in commodities such as gems and gold that can easily be moved to other jurisdictions, discreetly investing in and selling valuable assets such as real estate, gambling, counterfeiting; and using shell companies (inactive companies or corporations that essentially exist on paper only).

Electronic Money Laundering

The Internet has put a new spin on the old crime. The rise of online banking institutions, anonymous online payment services, and peer-to-peer (P2P) transfers with mobile phones have made detecting the illegal transfer of money even more difficult. Moreover, the use of proxy servers and anonymizing software makes the third component of money laundering, integration, almost impossible to detect—money can be transferred or withdrawn leaving little or no trace of an IP address.

Money can also be laundered through online auctions and sales, gambling websites, and virtual gaming sites, where ill-gotten money is converted into gaming currency, then back into real, usable, and untraceable "clean" money.

The newest frontier of money laundering involves cryptocurrencies, such as Bitcoin. While not anonymous, they are increasingly being used in blackmail schemes, the drug trade, and other criminal activities due to their relative anonymity compared with more conventional forms of currency.

Anti-money-laundering laws (AML) have been slow to catch up to these types of cybercrimes since most of the laws are still based on detecting dirty money as it passes through traditional banking institutions.

Preventing Money Laundering

Governments around the world have stepped up their efforts to combat money laundering in recent decades, with regulations that require financial institutions to put systems in place to detect and report suspicious activity. The amount of money involved is substantial. According to the United Nations Office on Drugs and Crime, global money laundering transactions account for roughly $800 billion to $2 trillion annually or some 2% to 5% of global GDP.

In 1989, the Group of Seven (G-7) formed an international committee called the Financial Action Task Force (FATF) in an attempt to fight money laundering on an international scale. In the early 2000s, its purview was expanded to combating the financing of terrorism.

The United States passed the Banking Secrecy Act in 1970, requiring financial institutions to report certain transactions to the Department of the Treasury, such as cash transactions above $10,000 or any others they deem suspicious, on a suspicious activity report (SAR). The information the banks provide to the Treasury Department is used by the Financial Crimes Enforcement Network (FinCEN), which can share it with domestic criminal investigators, international bodies, or foreign financial intelligence units.

While these laws helped track criminal activity, money laundering itself wasn't made illegal in the United States until 1986, with the passage of the Money Laundering Control Act. Shortly after the 9/11 terrorist attacks, the USA Patriot Act expanded money-laundering efforts by allowing investigative tools designed for organized crime and drug trafficking prevention to be used in terrorist investigations.

What Is a Ponzi Scheme?

A Ponzi scheme is a fraudulent investing scam promising high rates of return with little risk to investors. A Ponzi scheme is a fraudulent investing scam that generates returns for earlier investors with money taken from later investors. This is similar to a pyramid scheme in that both are based on using new investors' funds to pay the earlier backers.

Both Ponzi schemes and pyramid schemes eventually bottom out when the flood of new investors dries up and there isn't enough money to go around. At that point, the schemes unravel.

Key Takeaways

a. Similar to a pyramid scheme, the Ponzi scheme generates returns for older investors by acquiring new investors, who are promised a large profit at little to no risk.
b. Both fraudulent arrangements are premised on using new investors' funds to pay the earlier backers.
c. Companies that engage in a Ponzi scheme focus all of their energy on attracting new clients to make investments.

Ponzi and Pyramid Scheme: What's the Difference?

Pyramid schemes and Ponzi schemes have many similar characteristics based around the same concept: unsuspecting individuals get fooled by unscrupulous investors who promise them extraordinary returns in exchange for their money. However, in contrast to a regular investment, these types of schemes can offer consistent "profits" only as long as the number of investors continues to increase. Once the number tapers off, so does the money.

Ponzi and pyramid schemes are self-sustaining as long as cash outflows can be matched by monetary inflows. The basic differences arise in the type of products that schemers offer their clients and the structure of the two ploys, but both can be devastating if broken down.

Key Notes:

a. Both pyramid schemes and Ponzi schemes involve unscrupulous investors taking advantage of unsuspecting individuals by promising them extraordinary returns in exchange for their money.
b. With Ponzi schemes, investors give money to a portfolio manager. Then, when they want their money back, they are paid out with the incoming funds contributed by later investors.
c. With a pyramid scheme, the initial schemer recruits other investors who in turn recruit other investors and so on. Late-joining investors pay the person who recruited them for the right to participate or perhaps sell a certain product.

Ponzi Schemes

Ponzi schemes are based on fraudulent investment management services—basically, investors contribute money to the "portfolio manager" who promises them a high return, and then when those investors want their money back, they are paid out with the incoming funds contributed by later investors. The person organizing this type of fraud is in charge of controlling the entire operation; they merely transfer funds from one client to another and forgo any real investment activities.

The most famous Ponzi scheme in recent history—and the single largest fraud of investors in the United States—was orchestrated for more than a decade by Bernard Madoff, who defrauded investors in Bernard L. Madoff Investment Securities LLC. Madoff built a large network of investors that he raised cash from pooling his almost 5,000 clients' money into an account he withdrew from. He never actually invested the money, and once the financial crisis of 2008 took hold, he could no longer sustain the fraud. The SEC values the total loss to investors to be around $65 billion. The controversy sparked a period in late 2008 that is known as Ponzi Mania, in which regulators and investment professionals were on the hunt for other Ponzi schemes.

Pyramid Schemes

A pyramid scheme, on the other hand, is structured so that the initial schemer must recruit other investors who will continue to recruit other investors, and those investors will then continue to recruit additional investors, and so on. Sometimes there will be an incentive that is presented as an investment opportunity, such as the right to sell a particular product. Each investor pays the person who recruited them for the chance to sell this item. The recipient must share the proceeds with those at the higher levels of the pyramid structure.

One key difference is that pyramid schemes are harder to prove than Ponzi schemes. They are also better protected because the legal teams behind corporations are much more powerful than those protecting an individual. One of the largest accused pyramid schemes was with the nutritional company Herbalife (HLF). Even though they were labeled as an illegal pyramid scheme and paid out more than $200 million in damages, their products still sell, and the stock price looks healthy.[3]

Special Considerations

In the same way that investors should be investigating companies whose stock they purchase, it is equally as important to investigate those who manage their money. It is helpful to call the Securities and Exchange Commission (SEC) to ask if there are open investigations into a money manager or prior instances of fraud.

Money managers should be able to offer verifiable financial data; true investments can be easily checked. If an investor is considering getting involved in what appears to be a pyramid scheme, it would be beneficial to use a lawyer or CPA to scour the documents for inconsistencies.

The Bottom Line

There are two additional important factors to consider: The only guilty party in the Ponzi and pyramid scheme is the originator of the corrupt business practice, not the participants (as long as they are unaware of the illegal business practices). Secondly, a pyramid scheme differs from a multi-level marketing campaign, which offers legitimate products.

THE RELATIONSHIP BETWEEN FRAUD AND MONEY LAUNDERING

Although both fraud and money laundering are crimes based on deception and although the movement of fraud obtained by fraud is a type of money laundering, fraud and money laundering are distinctly different ad should not be confused. Mo9ney laundering has been defined in several ways, but essentially, it is a process undertaken by or on behalf of criminals with the object of hiding or disguising their criminal activities and the origin of their illicit proceeds. The goals are often achieved through a series of financial transactions, sometimes involving several countries and through a variety of financial products

Characteristics that distinguish money laundering from fraud

1. Money laundering is far less likely to affect financial statements than the broad spectrum of fraud is because of the conduit phenomenon. Hence, it is highly unlikely that financial statement auditing procedures will identify or even stumble upon possible indications of money laundering.
2. Fraudulent activities usually result in the loss or disappearance of assets or revenue from the business whereas money laundering may create significant fee income because the business may charge a fee for the transactions that permit the illicit proceeds to be distanced from their source.

Nevertheless, many conditions and control deficiencies may contribute to fraud vulnerability that is, the risk of criminal activities going undetected. Prominent among these are highlighted below:

1. Lack of a strong control environment
2. Lack of a strong regulatory compliance function, in the absence of which a business is subject to high compliance risk and reputational risk
3. Lack of well-defined and well-communicated enterprise-wide ethical guidelines and standards and related training programs

4. Lack of a robust internal audit compliance program
5. The previous report of examiners or auditors, memorandums of understanding and past administrative and enforcement actions citing compliance problem, control deficiencies, of concerns over managements competence and/or integrity
6. Significant revenues stemming from assets or liabilities associated with high-risk jurisdictions notably bank secrecy havens
7. Abnormally high electronic funds transfer activity from and to high-risk jurisdictions with insufficient controls
8. Lack of background checks on new employees
9. Unreasonably infrequent or non-existent review of security software and system.

Money laundering occurs when funds from illegal activity are moved through the financial system in such a way as to make it appear that they came from legitimate sources. Money laundering usually involves three-stage: placement, layering, and integration. In the placement stage, cash or cash equivalents are placed into the financial system. In the layering stage, the money is transferred or moved to other accounts through a series of financial transactions designed to obscure the origin of the money. Finally, in the integration stage, the funds are reintroduced into the economy so that they appear to have come from legitimate sources. Money laundering can have several economic and social consequences, including increased crime and corruption, and the undermining of the legitimate private sector. Jeopardized by the efforts of criminals and their associates either to disguise the origin of criminal proceeds or to channel lawful or unlawful money for terrorist purposes. The misuse of the financial system to channel criminal or even clean money for terrorist purposes poses a clear risk to the integrity, proper functioning, reputation, and stability of the financial system. The financial costs of organized crime, terrorism, and money laundering are only the tip of the iceberg as concerns the total impacts. Money laundering negatively impacts economic development and terrorism affects the economies of many countries in the world.

Money laundering is the disguising of funds derived from illicit activity so that they may be used without detection of the illegal activity that produced them. Money laundering involves three stages: placement, layering, and integration. Effective anti-money laundering and combating the financing of terrorism regimes are essential to protect the integrity of markets and the global financial framework as they help mitigate the factors that facilitate financial abuse. The goal of a large number of criminal acts is to generate a profit for the individual or group that carries out the act. Money laundering is the processing of these criminal proceeds to disguise their illegal origin. This process is of critical importance, as it enables the criminal to enjoy these profits without jeopardizing their source.

Illegal arms sales, smuggling, and the activities of organized crime, including example drug trafficking and prostitution ring, can generate huge amounts of proceeds. Embezzlement, insider trading, bribery, and computer fraud schemes can also produce large profits and create the incentive to legitimize the ill-gotten gains through money laundering. When a criminal activity generates substantial profits, the individual or group involved must find a way to control the funds without attracting attention to the underlying activity or the persons involved. Criminals do this by disguising the sources, changing the form, or moving the funds to a place where they are less to attract attention Financial Action Task Force (FATF).

According to the United Nations 2000 convention against Transactional Organized Crime, also known as the Palermo Convention, money laundering is fined as follows:

1. The convention or transfer of property, knowing it is derived from a criminal offense, to conceal or disguise its illicit origin or of assisting any person who is involved in the commission of the crime to evade the legal consequences of his action.
2. The concealment or disguising of the true nature, source, location, disposition, movement, rights concerning, or ownership of property knowing that it is derived from a criminal offense.
3. The acquisition, possession, or use of property, knowing at the time of its receipt that it was derived from a criminal offense or participation in a crime.

One of the early accomplishments of the Financial Action TASK Force (FATF) was to dispel the notion that money laundering is only about cash transactions. Through its several money laundering typologies exercises, the Financial Action TASK Force (FATF) has shown that money laundering can be achieved through virtually every medium, financial institution of money laundering is knowledge. In all three of the highlights mentioned above, it can be deduced that the money is derived from a criminal offense. Generally, a broad explanation of knowledge is used for the definition of money laundering.

The intent and knowledge required to prove the offense of money laundering include the concept that such a mental state may be inferred from objective factual circumstances. In several jurisdictions, the term willful blindness is a legal principle that operates in money laundering cases. Courts define willful blindness as the deliberate avoidance of knowledge of the facts or purposeful indifference. Courts have held that willful blindness is the equivalent of actual knowledge of the illegal source of funds or the intentions of a customer in a money laundering transaction.

Whereas funds destined for money laundering are, by definition, derived from criminal activities, such as drug trafficking and fraud, terrorist financing may include funds from legitimate sources used to finance acts of terrorism.

Concealment of funds used for terrorism is primarily designed to hide the purpose for which these funds are used, rather than their source. Terrorism funds may be sued for operating expenses, including such things as paying for food, and rent, as well as for the actual terrorist acts. Terrorists, similar to criminal enterprises, covet secrecy of transactions and access to funds, both terrorists and money launderers use the same method to move their money in ways to avoid detection, such as structuring payment to avoid reporting underground banking.

Stages in the Money Laundering Cycle

The stages in money laundering are also known as the money laundering cycle and it is broken down into three distinct stages. Money laundering often involves a complex series of transactions that are usually difficult to separate. However, the three stages of money laundering are highlighted below:

Step One: Placement

This is the first stage in the washing cycle. Money laundering is a “cash-intensive” business, generating vast amounts of cash from illegal activities (for example, street dealing of drugs where payment takes the form of cash in small denominations). The monies are placed into the financial system or retail economy or are smuggled out of the country. The launderer aims to remove the cash from the location of acquisition to avoid detection from the authorities and to the transaction it into other asset, forms; for example, traveler's cheques, postal orders, etc. placement is the physical disposal of cash or other assets derived from criminal activity. During this initial phase, the money launderer introduces the illegal proceeds into the financial system. Often, this is accomplished by placing the funds into circulation through financial institutions, casinos, shops, and other businesses, both domestic and international.

This phase can involve transactions such as:

1. Breaking up large amounts of cash into smaller sums and depositing them directly into a bank account.
2. Transporting cash across borders to deposit in foreign financial institutions, or to buy high valued goods such as artwork, antiques, and precious metals and stones that can then be resold for payment by check or bank transfer.

Step Two: Laundering

In the course of layering, there is the first attempt at concealment or disguise of the source of the ownership of the funds by creating complex layers of financial transactions designed to disguise the audit trail and provide anonymity. The purpose of layering is to disassociate the illegal monies from the source of the crime by purposely creating a complex web of financial transactions aimed at concealing any audit trail as well as the source and ownership of funds. In other words, layering involves the separation of illicit proceeds from their sources by layers of financial transactions intended to conceal the origin of the proceeds. This second stage involves converting the proceeds of the crime into another form and creating complex layers of financial transactions to disguise the audit trail, source, and ownership of funds. This phase can involve transactions such as:

1. Sending wire transfer of funds from one account to another, sometimes to or from other institutions or jurisdictions.
2. Converting deposited cash into monetary instruments (e.g. traveler's checks)
3. Reselling high-values goods and prepaid access/stored value products.
4. Investing in real estate and legitimate businesses.
5. Placing money in investments such as stocks, bonds, or life insurance

6. Using shell companies or other structures whose primary intended business purpose is to obscure the ownership of assets.

Step Three: Integration

This is the final stage in the process in which the money is integrated into the legitimate economic and financial system and assimilated with all other assets in the system. Integration of the "leaned "money into the economy is accomplished by the launderer making it appear to have been legally earned. By this stage, it is exceedingly difficult to distinguish between legal and illegal wealth. Integration involves supplying apparent legitimacy to illicit wealth through the re-entry of the funds into the economy in what appears to be normal business or personal transactions. This stage entails using laundered proceeds in seemingly normal transactions to create the perception of legitimacy. The launderer, for instance, might choose to invest the funds in real, estate, financial ventures, or luxury assets. By the integration stage, it is exceedingly difficult to distinguish privatization initiatives are often economically beneficial, they can also serve as a vehicle to launder funds. In the past, criminals have been able to purchase marinas, resorts, casinos, and other businesses to hide their illicit proceeds and to further their criminal activities.

1. Reputation Risk for the Country: A reputation as a money laundering or terrorist financial haven could cause negative effects for development and economic growth in a country. It diminishes legitimate global opportunities because foreign financial institutions may decide to limit their transactions with institutions located in money laundering havens. After all, the necessary extra cru tiny will make them more expensive. Legitimate businesses located in money laundering havens may suffer from reduced access to world markets (or may have to pay more to have access) due to extra scrutiny of ownership and control systems. Once a country's financial reputation is damaged, reviving it is very difficult and requires significant resources to rectify a problem that could have been prevented with proper anti-money laundering controls. Other effects include specific counter-measures that can be taken by international organizations and other countries and reduced eligibility for governmental assistance.
2. Social Costs: Significant social costs and risks are associated with money laundering. Money laundering is integral to maintaining the profitability of crime. It also enables

drug traffickers, smugglers, and other criminals to expand their operations. This drives up the cost of government expenses and budgets due to the need for increased law enforcement and other expenders (for example, increased health care costs for treating drug addicts) to combat the serious consequences that result.

VARYING IMPACT OF MONEY LAUNDERING ON COMPANIES

Both fraud and money laundering may result in criminal activity, but perhaps equally significant to companies and financial institutions is the reputational risk associated with those activities. The media interest in Enron, WorldCom, and other massive frauds in recent years is indicative of the public appetite for stories involving crime and big business. Whenever such a story breaks, it is often difficult for the company under siege to manage the public relations impact. Not only can share prices fall dramatically but also an investment by a company in building its brands may be at risk.

METHODS OF MONEY LAUNDERING

Money laundering is an evolving activity and must be continuously monitored in all its various forms for measures against it to be timely and effective. Illicit money can move through numerous different commercial channels, including checking, savings, and brokerage accounts; offshore entities and trusts; wire transfers; securities dealers; banks; money services businesses, and car dealers. As many governments around the world have implemented anti-money laundering obligations for the banking sector, there has been a shift in laundering activity financial sector and to non-financial businesses and professions.

The Financial Action Taskforce (FATF) uses its annual typologies exercise to monitor changes and better understand the underlying mechanisms of money laundering and terrorist financing. The objective is to report on some of the key methods and trends in these areas and to also make certain that the Financial Action Task Force (FATF) recommendations

7.8 Fraud and Examination Checklist

For the evaluation of the organization’s current fraud position, this fraud prevention checklist is intended as an aid to determining the antifraud posture of the organization and its ability to withstand fraudulent attacks. It is suggested that this checklist be used as an aid by both the internal audit and the audit committee

1. Is ongoing anti-fraud training provided to all employees of the organization?
2. Do employees understand what constitutes fraud?
3. Have the costs of fraud to the company and everyone in it—including lost profits, adverse publicity, job loss, and decreased morale and productivity—been made clear to employees?
4. Do employees know where to seek advice when faced with uncertain ethical decisions, and do they believe that they can speak freely?
5. Has a policy of zero tolerance for fraud been communicated to employees through words and actions?

Fraud Prevention Checklist 2.

The following questions/observations are to guide our fraud prevention measures:

1. Is an effective fraud reporting mechanism in place?
2. Have employees been taught how to communicate concerns about known or potential wrongdoing?
3. Is there an anonymous reporting channel available to employees, such as a third-party hotline?
4. Do employees trust that they can report suspicious activity anonymously and/or confidentially and without fear of reprisal?
5. Has it been made clear to employees that reports of suspicious activity will be promptly and thoroughly evaluated?
6. To increase employees' perception of detection, are the following proactive measures taken and publicized to employees?

7. Is possible fraudulent conduct aggressively sought out rather than dealt with passively?

8. Does the organization send the message that it actively seeks out fraudulent conduct through fraud assessment questioning by auditors?

9. Are surprise fraud audits performed in addition to regularly scheduled fraud audits?

10. Is continuous auditing software used to detect fraud and, if so, has the use of such software been made known throughout the organization?

11. Is the management climate/tone at the top one of honesty and integrity? Are employees surveyed to determine the extent to which they believe management acts with honesty and integrity?

12. Are performance goals realistic?

13. Have fraud prevention goals been incorporated into the performance measures against which managers are evaluated and which are used to determine performance-related compensation?

14. Has the organization established, implemented, and tested a process for oversight of fraud risks by the board of directors or others charged with governance (e.g., the audit committee)?

15. Are fraud risk assessments performed to proactively identify and mitigate the company's vulnerabilities to internal and external fraud?

16. Are strong anti-fraud controls in place and operating effectively, including the following?
    ▪ Proper separation of duties, Use of authorizations, Physical safeguards, Job rotations

17. Does the internal audit department, if one exists, have adequate resources and authority to operate effectively and without undue influence from senior management?

18. Does the hiring policy include Past employment verification, Criminal and civil background checks, and credit checks (where permitted by law)?

19. Are employee support programs in place to assist employees struggling with addictions, mental/emotional health, family, or financial problems?
20. Is an open-door policy in place that allows employees to speak freely about pressures, providing management the opportunity to alleviate such pressures before they become acute?
21. Are anonymous surveys conducted to assess employee morale?

Independent Corrupt Practices Commission and Economic and Financial Crimes Commission

The Independent Corrupt Practices Commission (ICPC), is a Nigerian anti-corruption agency that was inaugurated on 29 September 2000 by President Olusegun Obasanjo. The mandate is to receive and investigate reports of corruption and inappropriate cases prosecute the offender(s), examine, review and enforce the correction of corruption-prone systems and procedures of public bodies, eliminate corruption in public life, and educate and enlighten the public on and against corruption and related offenses to enlist and foster public support for the fight against corruption.

In 2003, the Economic and Financial Crimes Commission (EFCC) was established as a law enforcement agency to investigate financial crimes such as advance fee fraud (419 fraud) and money laundering, while the ICPC targets corruption in the public sector, especially bribery, gratification, graft, and abuse or misuse of office, the EFCC investigates people in all sectors who appear to be living above their means, and is empowered to investigate and prosecute money laundering and other financial crimes. The EFCC tracks illicit wealth accruing from abuse of office, especially attempts to integrate such wealth into the financial system. There have been tensions between the two commissions. The ICPC chairman, Justice Emmanuel Ayoola, has complained about duplication of the functions of ICPC by the EFCC, particularly overlap between the ICPC Anti-Corruption and Transparency Monitoring Units and the EFCC Anti-Corruption and Transparency Committees.

In June 2009 the Senate Committee on Drugs, Narcotics, and Anti-Corruption moved to amend the Acts setting up the ICPC and the EFCC to guarantee independence from the executive. Two of the proposals were to give the EFCC Chair a legally stipulated tenure of four years and to require Senate approval for the removal of members of either commission. A merger of the two agencies was also considered. At public hearings on the amendments, Senate President David Mark expressed concern that the EFCC and the ICPC would have too much power without another body supervising their work. However, the EFCC Chairman, Farida Waziri said it was important for anti-corruption agencies to remain independent of politicians, whom they often investigated. She expressed concern that the proposed amendment would rather limit than enhance the effectiveness of the agencies.[10]

In the first three years of its existence, the ICPC received a total of 942 petitions. In August 2003 about 400 of the petitions were under investigation, and about 60 were at various stages of prosecution.] After the first four years, however, the ICPC had failed to make any major convictions. Justice Akanbi blamed the lack of progress in part on severe underfunding, in part on the fact that the commission was not authorized to investigate corrupt activity before the date the ICPC was founded.

The ICPC has prosecuted several prominent Nigerians. Some examples are Ghali Umar Na'Abba, speaker of the House of Representatives (2002), Fabian Osuji, head of the Nigerian Federal Ministry of Education (2006).

In June 2004, Justice Mustapha Akanbi said that although several petitions had been written against state governors, the ICPC was not empowered to investigate governors involved in corrupt practices. However, in August 2008 Emmanuel Ayoola said the commission would soon issue a list of former state governors found to have violated the provisions of the ICPC Act 2000. He noted that some of them were already being prosecuted for money laundering, and said the ICPC was scrutinizing the file to see whether there are cases they could pursue.[23]

In August 2009, the ICPC started investigations into an alleged N90 billion fraud leveled against managers of Pension Fund for retirees in the health sector. In September 2009, the ICPC summoned officials of the Ministry of Education linked with the alleged mismanagement of N1 billion meant for the Education Reform Programme.

What is the role of ICPC?

To receive and investigate complaints from members of the public on allegations of corrupt practices and in appropriate cases, prosecute the offenders. To examine the practices, systems, and procedures of public bodies and where such systems aid corruption, to direct and supervise their review.

What is the full meaning of ICPC and its functions? 3 years ago read comments by George Ibenegbu. The ICPC is one of the government`s tools to protect the people of Nigeria against corruption. What is the full meaning of ICPC? It has been 17 years since it was launched. Still, there are corruption cases that occur in Nigeria? Does it mean that they do not perform their work well? Continue reading to find out! Full Meaning of ICPC in Nigeria The full meaning of ICPC is Independent Corrupt Practices Commission.

Moreover, the commission has a task to overview suspicious financial cases of the Federal and Local governments and their officials. The ICPC is also created to enlighten citizens of Nigeria about corruption cases and corruption policies of Nigeria. it was established to enlighten, rally, and enlist citizens of Nigeria in the anti-corruption process; Educate and alert citizens about the consequences of corruption.

Therefore, support the preventative measures in corruption cases. The ICPC should advise the leaders of the government bodies about corruption measures in the country. Moreover, the commission should also help these leaders to assure the effectiveness of anti-corruption and anti-bribery procedures. - The ICPC has a task to assist offices, agencies, and companies in taking preventive measures against cases of corruption, bribery, and public offenses. - The ICPC should also test and practice new procedures and systems that can help to illuminate corruption in Nigeria. - The ICPC must investigate any complaints about corruption and bribery cases in Nigeria.

However, there have been some tensions between these two commissions. Therefore, they tried to investigate each other, but without visible results. In June 2009, the ICPC started to work with international anti-corruption and anti-laundry organizations. Like: - African Union Convention against Corruption; - Transparency International; - United Nations Committee on Anti-Corruption.

In 2003, the ICPC conducted about 400 investigations. The commission did not achieve much success over its first four years of its existence. The Chairman of the ICPC, Justice Mustapha Akanbi blamed the severe underfunding of the organization as the main reason for the lack of progress. Alleged fraud: Lagos House of Assembly speaker, Obasa lands in EFCC trouble (see court papers) Also, the ICPC lack experience and authority to conduct corruption investigations. Most of the petitions were accusations against governors. The ICPC did not have the power to investigate acting governors. Still,

One more thing, in August 2008, Chairman Emmanuel Ayoola found a loophole in the law about the prosecution process. According to this, the ICPC has the authority to investigate ex-governors. Therefore, several governors were accused of corruption and money laundering shortly after they gave up their posts. In August 2009, the commission managed to investigate the N90 million fraud of the Pension Fund. In September 2009, the members of the ICPC investigated the mismanagement of N1billion allegedly intended for the Education Reform Programme. ICPC Conclusion According to the public report of 2015, the ICPC investigated more than 260 criminal cases and more than 140 civil cases. Nevertheless, there were a lot of controversies following the ICPC in 2011-2012. It created a line of acting chairmen up to 2012. Top anti-corruption agencies in Nigeria. For today, the ICPC continues its investigation into corruption cases. The Federal Government still accuses the organization of the lack of progress. The ICPC continues to respond to these accusations with a lack of funding and legal power to prosecute the acting authorities.

The Economic and Financial Crimes Commission (EFCC) is a Nigerian law enforcement agency that investigates financial crimes such as advance fee fraud (419 fraud) and money laundering. The EFCC was established in 2003, partially in response to pressure from the Financial Action Task Force on Money Laundering (FATF), which named Nigeria as one of 23 countries non-cooperative in the international community's efforts to fight money laundering. The agency has its head office in Abuja.

Under the previous EFCC chairman Nuhu Ribadu, the agency has addressed financial corruption by prosecuting and convicting several high-profile corrupt individuals, ranging from Nigeria's former chief law enforcement officer to several bank chief executives.

In September 2006, the EFCC had 31 of Nigeria's 36 state governors under investigation for corruption. In December 2007, the Nigerian Federal Government, after extensive investigations by EFCC and other organizations, cleared the Vaswani brothers of any wrongdoing and invited them back into the country. Leading Nigerian daily "This Day" and other major newspapers reported the facts of their clearance quoting text from FG issued directives.

On June 6, 2008, Chief (Mrs.) Farida Mzamber Waziri was sworn in as the new chairperson of the EFCC. Then on the 6th of August 2008, the former chairman Nuhu Ribadu was demoted from Assistant Inspector General (AIG) to Deputy Commissioner of Police (DCP).

On September 14, 2010, the head of the Forensic Unit of the EFCC, Abdullahi Muazu, was assassinated in Kaduna. He had been actively involved in the trials of several heads of banks. Waziri was dismissed by President Goodluck Jonathan on 23 November 2011 and replaced by Ibrahim Lamorde as Acting Chairman, who has since been confirmed on the 15 February 2012 by the Nigerian Senate.

Ibrahim Lamorde was sacked by President Muhammadu Buhari on November 9, 2015, and replaced with Ibrahim Magu. The Nigerian Senate refused to confirm Magu as chairman of the agency twice due to security reports by law enforcement agencies in the country.

On July 6, 2020, Magu was arrested by operatives of the Department of State Services and the Nigeria Police Force and driven to the Presidential Villa where he was made to answer questions on alleged corruption against him. He was detained overnight and on July 7 was suspended from his position as chairman of the agency pending the completion of the investigation.

On July 10, 2020, President Muhammadu Buhari approved the immediate suspension of Ibrahim Magu as acting chairman of the Economic and Financial Crimes Commission (EFCC) in a statement issued by the Office of the Attorney-General of the Federation, Abubakar Malami. President Muhammadu Buhari also approved that the EFCC Director of Operations, Mohammed Umar Abba, should take charge and oversee the activities of the Commission pending the conclusion of the ongoing investigation and further directives

Corruption is a hydra-headed monster and a cankerworm that undermines the fabric of all societies. It does not differentiate between developed and developing countries. It constitutes a serious threat to good governance, rule of law, peace and security, as well as development programs aimed at tackling poverty and economic backwardness. These considerations informed my decision to attend this event as well as the Anti-Corruption Summit organized by Prime Minister Rt. Hon. David Cameron that will be held tomorrow. I expect that today's event would feed into the discussions that will be held tomorrow at Lancaster House.

In 2003, when the world came together to sign the United Nations Convention Against Corruption (UNCAC) that entered into force in 2005, it was to tackle the growing threat that corruption had become to many nations. Little did we know that eleven years since then, the problem would continue unabated, but even become more intractable and cancerous.

CASE STUDY

In forensic accounting, accountants and lawyers may be close partners; and in fact, attorneys are often the reason accountants enter the field of forensic accounting, to begin with. All three accountants featured in these case studies found their way into the field through an attorney who needed help with a particular case. The rest, as they say, is history.

Case Study One – Using Forensic Accounting to Investigate Embezzlement

Culpepper CPA has been engaged to investigate several cases where a high-level executive or an employee was "cooking the books."

One of the challenges inherent to cases of suspected theft, fraud, or embezzlement is unearthing clues. A person stealing money tries to cover his or her tracks, and the more sophisticated fraud, the harder it is to uncover.

For example, a construction company once engaged us to investigate a CFO suspected of wrongdoing. The owners suspected that the CFO had embezzled a significant amount of money. The financials just weren't adding up. The owners noticed some questionable transactions, but they lacked the objectivity and training necessary to connect all the dots.

We were able to dig through all the financial records, document the many unauthorized transactions, and deliver definitive proof. Over the last three or four years, the CFO had manipulated payroll to give himself unapproved bonuses. He had also put personal expenses on company credit cards and paid personal bills with company checks.

All told, the CFO had embezzled over $700,000!

We interviewed the CFO, who became an ex-employee soon after. We also worked with our client's attorney and insurance company to file a claim and recover the maximum amount possible. When the company later decided to press charges against the CFO, we provided testimony as an expert witness.

Case Study Two – Using Forensic Accounting to Prove Fraud

Another one of Culpepper CPA's clients was a school system. Several high-level administrators suspected that a principal was misusing school funds.

"The principal used school funds to pay $25,000 to $30,000 of his Master's degree tuition. He helped his wife, who was a teacher at the school; keep a retired teacher, who was their close friend, on the payroll. He also created additional pay or salaries for people working at before- and after-school programs, even when those individuals didn't work all the days for which they were paid.

Some of them even logged Paid Time Off (PTO) on the same days for which they received after-school pay!

We were able to investigate these incidents, document the various unauthorized expenditures and fraudulent payroll, and give the local board of education the information and context they needed to terminate the principal and file a counter-suit against the ex-principal".

Final Thoughts

Unfortunately, we live in a world where forensic accounting is needed to resolve financial disputes.

Though some people certainly make honest mistakes, others know exactly what they are doing. Being in the right may not be enough to keep you out of the courtroom, so it pays to have the right financial records and documentation, along with expert testimony from a forensic accountant.

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