

# Awareness towards Forensic Accounting and What Non-Accounting Experts Need to Know

 Dewan Azmal Hossain

## Abstract:

Multidisciplinary areas of accounting are increasing day by day. One such multidisciplinary area is forensic accounting. Due to the increase of corporate frauds like in the cases of Enron and WorldCom, organizations are putting a special effort into the investigation of frauds. To investigate fraud, corporations need to be prepared. One way of this preparation is understanding the ideas of forensic accounting and the scopes and areas of forensic accounting. Not only for corporations but also for non-accounting experts knowledge of forensic accounting is important. This theoretical review deals with these issues and explains the technical terms of forensic accounting that non-accounting experts need to know to understand the basics of forensic accounting. This theoretical review also argues that auditing and forensic accounting are not the same. To be a forensic accountant understanding the term "Due Diligence" is a prerequisite. On the other hand, auditing is merely matching the financial statement with applicable standards. After making a comparison between auditing and forensic accounting, it is discussed that non-accounting experts need to make themselves familiar with financial accounting, financial ratios and also with the specialized analytical tools to understand the nature of the work of forensic accountants, their networking techniques, relation establishing techniques and inferential analysis techniques. This study also provides an extract of awareness towards forensic accounting that Bangladeshi accounting and auditing firms, multinational and local companies have.



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## Introduction

Primarily, "Forensic accounting" is related to the investigation. This investigation is done based on inferences. Accounting experts use the knowledge of forensic accounting to perform an "Autopsy" of an organization. But what about the people who are interested in this emerging area of accounting but are not accounting expert. To them, forensic accounting is related to fraud investigation only. Even some tend to mix forensic accounting with auditing. Interpretation of forensic accounting varies due to the experience, area of specialization, the background of interpreters. But why non-accounting experts need to know about forensic accounting? According to Huber and DiGabriele (2014), "Forensic accounting is a confluence of many different disciplines such as law, auditing, accounting, finance, economics, psychology, sociology and criminology" (p.105). They also marked this discipline as a multidisciplinary field of knowledge. Thus it is important for a non-expert to understand the basics of forensic accounting. Zabihollah and James (1997) also found that education on forensic accounting makes people especially practitioners more confident in the culmination of fraud. That's why this theoretical review focuses on understanding forensic accounting, societal perception of fraud and forensic accounting, understanding the basics of financial accounting, general types of entities that are in existence in the society, how to do financial analysis, what roles accounting professionals perform in forensic accounting, how businesses become the victim of fraudulent activities in the absence of forensic accounting, how a business becomes the villain in the absence of forensic accounting, what types of investigation measures are taken by the forensic accountants to identify fraud, how to deal with financially sophisticated witnesses, how to prove cases through documentary evidence, common analytical tools widely used by investigators, how to do inferential analysis. All this will help a non-accounting expert to understand the basics of forensic accounting and will eliminate the common stereotype that non-accounting personnel has about forensic accounting. According to Hopwood et al. (2008), applying both analytical and Investigative skills like finance, auditing, accounting, quantitative comparison, knowledge on laws to resolve financial disputes and analyze and evaluate evidential matters to identify the meaning and convey the meaning is forensic accounting. Here they are emphasizing utilizing specialized skills to resolve financial disputes. Another thing is important when dealing with financial disputes. That is following the standards required by the courts of law. Apart from financial disputes, there are some other issues that forensic accountants resolve. Like, Crumbley et al. (2013) found some more common and important areas such as prevention of fraud, business valuation, merger disputes, acquisition disputes, bankruptcy prediction, and prevention, etc. that forensic accountants perform from time to time. These are the commonly defined scopes of forensic accounting and the activities of forensic accountants. After understanding these commonly defined areas a non-accounting expert needs to dig into a more detailed aspect of forensic accounting that is financial forensic. Kranacher et al. (2011) put insight into this matter. According to them, financial theories and principles that are applied on facts or hypotheses (postulates or assumptions) to set off legal disputes are financial forensic and it includes services like litigation advisory services and investigative services. In short, it can be said that financial forensic is the intersection of technical skills, investigative skills and financial theories and principles that leads to critical thinking and communication and interpretation of results of an inquiry. Crumbley et al. (2005) probably give the best possible definition of forensic accounting as they match the function of accounting with forensic investigation. To them using financial data to resolve current and future legal disputes is forensic accounting. Apart from the definitional analysis, non-accounting experts also need to understand the application of forensic accounting. Pedneault

et al. (2012) provide the best insight into the application of forensic accounting. To them the total the application can be divided into fundamental knowledge and specialized forensic knowledge. Forensic accountants will apply their fundamental knowledge on reporting, testimony, the discovery of facts, gathering of information and also preserving that valuable information, planning of the total investigation and prepare themselves accordingly to dispute resolution. After applying their fundamental knowledge forensic accountants move towards the application of their specialized knowledge. This includes detecting financial statement misrepresentation, resolving family disputes, like divorce, that is in compliance with family laws, computer forensic analysis where they apply their specialized knowledge in gathering electronic evidence and restoring them, identifying the cause of economic damage and calculation of economic damages, helping in bankruptcy disputes, helping the organization in restructuring, business valuation and the most important implication of their knowledge is on the detection of fraud, prevention of fraud and their valuable responses in this regard. These areas of forensic accounting are supported by many previous studies (Dhar & Sarkar, 2010; Bhasin, 2007). All these activities of forensic accountants strengthen the claim of Huber and DiGabriele (2014) that forensic accounting is a multidisciplinary field of study where experts need to engage themselves in various areas of accounting and investigation simultaneously. After understanding the definitional point of view and area of work of forensic accountants, it is important for the non-accounting expert to understand the concept of both fraud and forensic accounting from the social context as it will help them to understand society's perception of forensic accounting and will also help them to enrich their knowledge of society's perception of fraud. That's why the next section deals with the social perception of fraud and forensic accounting.

### **Societal perception of "Fraud and forensic accounting"**

As per Pedneault et al. (2012) fraud is an "Opportunistic Infection". That means no one is above fraud and it is only a matter of getting the opportunity that separates those who do fraud from those that do not. Now, this is a too oversimplified point of view of fraud. What's the most important actor in detecting fraud? That is greed, it is the perception of society that when greed meets the opportunity fraudulent activities arise. There are many types of fraud like internal fraud (when people internal to an organization like the staffs or management engage in fraudulent activities), external fraud (fraud done by outside parties that hurts the organization), mixed fraud (fraud done by the collusion of internal members with the external opportunist parties) (Karwai2002; Appah 2016), but as this theoretical review is dealing with a particular occupation, occupational fraud will be under the shed of light in this theoretical analysis. As per the Association of Certified Fraud Examiners (ACFE), ".....the use of one's occupation for personal enrichment through the deliberate misuse or misapplication of the employing organization's resources or assets" is occupational fraud. For non-accounting experts to understand fraud understanding the term "Fraudster" and intent of a "Fraudster" is important as it is "The Fraudster" who performs fraud. The prime activity of a fraudster is to harm the victim through deception or concealment. As per Black's law dictionary "A knowing misrepresentation of the truth or concealment of a material fact to induce another to act to his or her detriment. It could be a tort (civil matter) or it could be criminal" is considered as fraud. As per Pedneault et al. (2012) fraud can be done in five basic accounting cycles in any organization. Those include the period of sales and collection of amount, purchase of payments, in the payroll account, inventory and warehousing, and when doing monthly reconciliation. The sales cycle is the most vulnerable cycle as this cycle mainly deals with cash and fraud can be done through theft of cash or other customer's payment. In

the purchase cycle, fraud can be done through the setting of shell companies that do not exist in real life and fraudsters can receive goods through misappropriate invoices. Fraud occurs in the payroll cycle when there is no segregation of duties. Fraud can also occur in management level or through "Collusion" which means everyone is involved in the fraud. As this theoretical review's main focus is on a particular profession that's why more focus is given on occupational fraud. According to ACFE occupational fraud can be classified into three categories, these are asset misappropriation, corruption, and fraudulent statements. Here the prime focus that a non-accounting expert should exert is on the perception of the society that "fraud is a victimless crime" and organizations do not need to pay too much heed in this small matter as those costs are relatively too small compared to the return of a big organization. Obviously, this statement is true only for large trading companies. Due to this perception fraud occurs frequently and to check this menace forensic accounting arrives in the practice. It also the perception of the society that forensic accountants check every possible aspect of fraud and prevent it from happening. But this perception is not wholly true. Analyzing the work of Pedneault et al. (2012) it is found that almost everyone in a society is prone to do fraud, from the large corporate individuals to simple university graduates everyone is vulnerable to the opportunities of doing fraud. And for this reason, it is almost impossible for forensic accountants to perform every detailed investigation and for this reason, they cannot stop every fraud from happening, and that's why forensic accountants tend to follow the inferential approach where they made their decision based on the samples of evidence. It is also the perception of the society that two types of offenders are interrupting the process of the society and country and those are crisis responders and opportunity takers. Overall this is the perceptions of fraud and forensic accounting from a social point of view. Now to perform basic forensic accounting, the non-accounting expert needs to understand the basics of financial accounting. The next section digs more into that area.

### **Basics of financial accounting for non-accounting experts**

To understand how financial fraud occurs it is important to have knowledge of accounting principles. Without knowing the principles any expert will face a hard time finding the sources of fraud. Based on the principles of financial accounting nature of doing fraud varies with the size of an organization and also with the basis of the transaction. According to Pedneault et al. (2012), "The financial crimes perpetrated on smaller companies, as evidenced by the ACFE survey, included fraudulent disbursements, where funds are disbursed through false invoices or forging company checks; skimming, where cash or other payments are stolen before they ever get recorded; and cash larceny, where cash or other payments are stolen after they are recorded" (p. 32). To understand the basics of financial accounting non-experts need to know both the cash and accrual basis. Under the cash basis, it is hard to do fraud as it is more visible and organizations only record a transaction under this method when they receive or pay cash in exchange. On the other hand, in accrual basis fraud occurs more frequently than cash basis as under this method a transaction is recorded when revenues are earned and expenses are incurred, not when cash is actually received or paid. Apart from the nature of the transaction, non-accounting experts also need to understand the basics of auditing and the relationship of auditing, forensic accounting, and fraud. Generally, auditor's area of work may seem similar to that of forensic accountants but there are many substantial differences between auditing and forensic accounting. Auditing mainly gives opinions that are reasonable and it mostly includes the examination of financial statements, while the area of forensic accounting is much bigger as discussed above in section (1). But with the increase of fraudulent activities like Enron and WorldCom cases auditing now, to some extent, is

including the extract of investigation. This statement is supported through the work of DiGabriele (2009). According to him, "The arrival of the Sarbanes-Oxley Act of 2002 (Sarbox), the subsequent formation of the Public Company Accounting Oversight Board (PCAOB), and the implementation of the Statement on Auditing Standards No. 99 (SAS 99) has presented the current auditing environment with a new paradigm that makes finding fraud a priority" (p. 109). But this added pressure is forcing the auditors to expand their area of knowledge. But there is a claim that with the present extent of knowledge auditors may not cope with requirements need to do financial risk and fraud assessment (Arens and Elder, 2006; Coenen, 2006). Non-accounting experts have a tendency to mix the role of auditors with that of forensic accountants but from the above discussion, it is quite clear that their function is different. After understanding the nature of the transaction, the role of auditors is important for non-accounting experts to know the necessary controls that have to be present in different accounting cycles. In this respect, Pedneault et al. (2012) opined that segregation of duties, the physical safeguard of assets, audit trails, checking of adequate documentation with "Due Diligence", independent checks on systems, etc. are some common controls that need to be assessed in different accounting cycles. After the understanding of the basics of financial accounting non-accounting experts need to understand the basics of financial analysis.

### Basics of financial analysis for non-accounting experts

Whenever non-accounting experts deal with financial analysis, they need to remember that only calculating the value does not mean anything if they cannot interpret it. The financial analysis will begin with financial ratios. These include Current Ratio, Quick Ratio, Net Working Capital Ratio, Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin, Earning Per Share (EPS), Accounts Receivable Turnover Ratio, Inventory Turnover Ratio, Debt to Equity Ratio, Interest Coverage Ratio, Price/ Earnings Ratio, Market to Book Ratio, Dividend Yield. The following tables deal with these ratios in a more detailed way.

**Table 1:** Liquidity Analysis Ratios

Name of ratios	How to calculate	Remarks
Current ratio	$\text{Current Assets} / \text{Current Liability}$	Non-accounting experts need to understand this ratio as it measures the financial stability of an organization regardless of its size. When current asset is more than current liability, then it is assumed that the organization's financial health is satisfactory.
Quick Ratio	$\text{Quick Assets} / \text{Current Liabilities}$	This ratio measures business's liquidity. Quick assets are found after deducting non-cash items like, inventories.
Net Working Capital Ratio	$\text{Net Working Capital} = \text{Current Assets} - \text{Current Liabilities}$ $\text{Net Working Capital} / \text{Total Assets}$	This ratio measures whether an organization has sufficient fund to stay in the operation in the short-run.

**Table 2:** Business Analysis Ratios

Name of ratios	How to calculate	Remarks
Accounts Receivable Turnover Ratio	$\text{Sales} / \text{Average Account Receivable}$ $\text{Average Accounts Receivable} = (\text{Beginning Accounts Receivable} + \text{Ending Accounts Receivable}) / 2$	This ratio measures how quickly an entity's clients are paying their bills. If time period between sales and cash collection is less then receivable turnover tends to be higher.



Inventory Turnover Ratio	$\text{Cost of Goods Sold} / \text{Average Inventories}$ $\text{Average Inventories} = (\text{Beginning Inventories} + \text{Ending Inventories}) / 2$	This ratio measures how often inventories are sold during the year. High ratio means less sales in that year.
Accounts Payable Turnover Ratio	$\text{Cost of Goods Sold} / \text{Average Accounts Payable}$ $\text{Average Accounts Payable} = (\text{Beginning Accounts Payable} + \text{Ending Accounts Payable}) / 2$	This ratio measures how quickly an entity is paying to its trade debtors. High ratio means less time between purchase and payment which always might not be good for organizations. Organizations have a tendency to defer the payment to avail the discount opportunity.

**Table 3: Profitability Analysis Ratios**

Name of ratios	How to calculate	Remarks
Return on Assets (ROA)	$\text{Net Income} / \text{Average Total Assets}$ $\text{Average Total Assets} = (\text{Beginning Total Assets} + \text{Ending Total Assets}) / 2$	This ratio measures management efficiency. That means how much assets are used to generate a profit.
Return on Equity (ROE)	$\text{Net Income} / \text{Average Stockholders' Equity}$ $\text{Average Stockholders' Equity} = (\text{Beginning Stockholders' Equity} + \text{Ending Stockholders' Equity}) / 2$	This ratio measures the efficiency of investment in terms of return.
Net Profit Margin	$\text{Net Income} / \text{Sales}$	This ratio measures the portion of income that an organization can extract from sales.
Earnings per Share (EPS)	$\text{Net Income} / \text{Weighted Average Number of Common Shares Outstanding}$	Non-accounting experts can use this ratio to measure the fraction of income that is available to an organization's common stockholders.

**Table 4: Capital Ratios**

Name of ratios	How to calculate	Remarks
Debt-to-Equity Ratio	$\text{Total Liabilities} / \text{Total Stockholder's Equity}$	This ratio measures the risk of an organization to become default in paying its debt. High ratio means company is overleveraged and trying to reduce its debt.
Interest Coverage Ratio	$\text{Income Before Interest and Income Tax Expense} / \text{Interest Expense}$	This measures the ability of an organization to pay interest on its debt. Non-accounting experts can use this measure to assess the ability of an organization to pay interest on the borrowed funds.

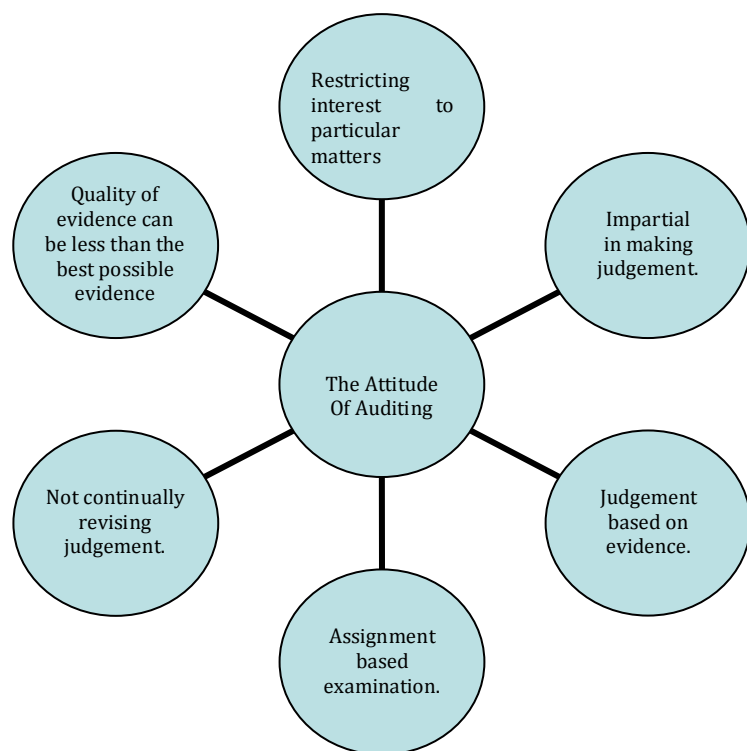
**Table 5: Capital Analysis Ratios**

Name of ratios	How to calculate	Remarks
Price/Earnings (PE) Ratio	$\text{Market Price of Common Stock} / \text{per Share} / \text{Earnings per share}$	This ratio is important for non-accounting experts at the time of owning a company's stock.
Market to Book Ratio	$\text{Market Price of Common Stock} / \text{per Share} / \text{Book Value of Equity Per Common Share}$ $\text{Book Value of Equity Per Common Share} = \text{Book Value of Equity per common stock} / \text{Number of Common Shares}$	Non-accounting experts need to understand this ratio to make judgement about whether a company is undervalued or overvalued.
Dividend Yield	$\text{Annual Dividends per Common Share} / \text{Market price of Common Stock Per Share}$	Based on this ratio non-accounting experts can find organizations that pay higher return per common stock

Apart from analyzing the financial ratios, non-accounting experts need to perform “Due Diligence” which means meeting the minimum requirement of analysis and also performing more analysis if possible. They need to understand the context of the underlying business because that will help them to gain some expectations about the possible results. While performing financial analysis non-accounting experts also need to understand the nature and power of competitors and also need to understand the market risk in the underlying industrial settings. Another two emerging areas that non-accounting experts need to consider are the composition of the board and corporate governance practices of the targeted organization. Though ratio analysis is important to understand the basics of financial analysis there are many limitations of ratio analysis also. Like, management can practice earnings management techniques to manipulate financial ratios (Healy & Wahlen, 1999; McNichols, 2000). That’s why the data mining technique comes into existence. According to Pedneault et al. (2012) “Data mining is simply obtaining access to an organization’s electronic files containing the details of individual customers, vendors, employees, and transactions, to enable the financial analyst to perform various electronic procedures over the information maintained within those files” (p. 62). At the outset of an inquiry, data mining should be made to identify the appropriate data analysis that will fit in with the particular context of the investigation (Golden et al., 2006). So, along with the understanding of financial ratios non-accounting experts also need to understand data mining concepts to understand the work of forensic accountants. Above mentioned techniques are quite common and easy to understand. But apart from financial ratios non-accounting experts also need to understand the specialized analytical tools that are common in forensic accounting.

### **Understanding the “Audit Process” and Internal Control**

Generally, there are three-levels of reporting on financial statements issued. Those include audits, reviews, and compilations. The cost and level of assurance of each level varies significantly. Here compilations provide a lower level of assurance at a lower cost with no opinion. Reviews, to some extent, perform analytical inquiry and provide mid-level service with no opinion. The audit is the highest form of assurance among this three-level of reporting on financial statements issued. It provides detailed explanation of why elements of financial statements are not in line with the applicable standard and also identify whether internal control is strong enough to tackle the challenges an organization faces from time to time. Now as for the opinion, auditors never say financial statements are accurate rather they provide a reasonable assurance that financial statement is free of material error. One limitation of auditing is that it depends solely on financial statement and “Due Diligence” is absent in auditing wherein forensic accounting, forensic accountants have to deal with many documents along with financial statements to reach to a conclusion about an investigation. Another limitation of auditing is that it does not increase the total knowledge of the audit profession, it only gives opinion regarding the purity of financial statement. The attitude of auditing is given below:



**Figure 1:** Attitude of auditing

Apart from auditing non accounting experts also need to understand the power of internal control. According to Pedneault et al. (2012),

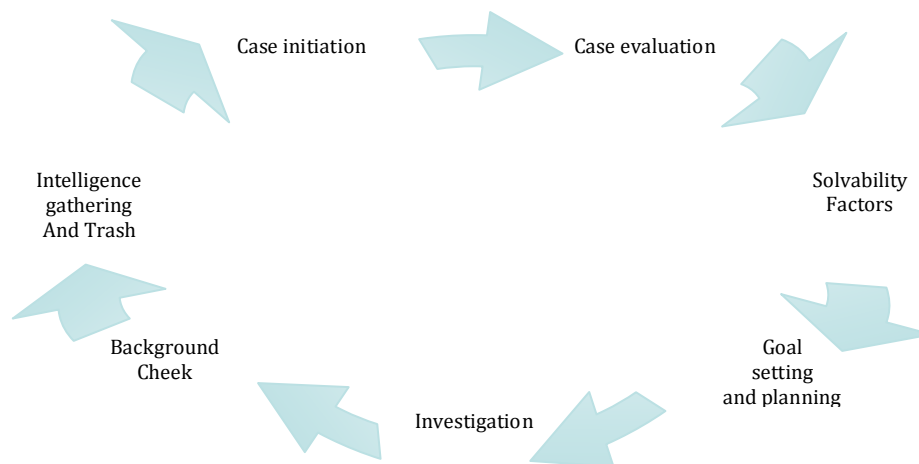
*“Internal controls become a concern to both the auditor and financial investigator when these controls are either absent or vulnerable to manipulation by fraudsters. Controls ensure that transactions are carried out only with appropriate authorization and approval, and are timely and accurately recorded according to transaction type, amount, and time of execution. Good internal controls include restricting access and segregating responsibilities to safeguard assets. Access to data processing centers and to the computers themselves should be strictly controlled. Assets are further controlled through comparing physical inventory counts with the financial records” (P.74).*

Basically the scope of internal control is huge. To understand how forensic accounting works non-accounting experts need to understand what internal control is. From organizational policies to segregation of duties, internal control includes everything that helps organizations to strive for successes. But for internal control to be effective some questions like, what are the expectations of internal auditor, how to comply with particular study, and the consequences of a particular internal decision making, etc. need to be answered. If internal control is weak in an organization, it is better to improve it or suffer the consequences of non-compliance.

### Understanding the “Investigative Process” of forensic accounting

Generally, every cases start from planning, execution and reflection. A simplified figure of investigative process is given below:





**Figure 2:** Investigative process

### Understanding the analysis tools for investigations

To understanding the work of forensic accountants, non-accounting experts need to understand the analytical tools used for investigation. Following analytical tools are developed by analyzing many prior studies (Pedneault et al., 2012; Peterson, 1994; Scott, 2010; Baker and Faulkner, 1993; Erickson, 1981; Sparrow, 1986; Hanneman & Riddle, 2006). Based on these prior studies it is found that common analysis tools are Associational Analysis and Temporal Analysis. Under associational analysis, important diagrams are matrices and link diagrams, social network diagrams. Under temporal analysis TECs, transaction and process flow diagrams, PERT and VIA charts are popular. The matrix and line diagrams are useful to interpret the visualizing relationship. When subjects that are subject to the investigation have three-dimensional relationship, matrix and line diagrams play a good interpretative role as they both represent two-dimensional representations. Line diagrams can be applied without the association of matrices diagrams but that becomes too difficult to interpret so it is advisable to make the association between line and matrix diagrams. Matrix diagrams are comprised of rows and columns. The following figures are illustrations of matrix diagrams.

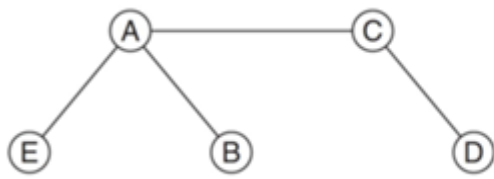
	A	B	C	D
A	x	x		
B	x	x		
C				
D				

**Figure 3:** Four by four matrix showing Relationship.

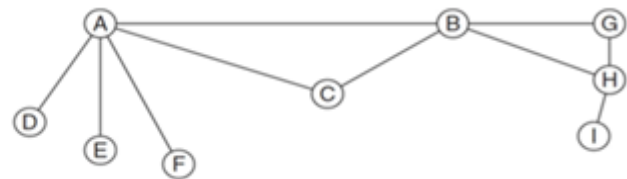
	A	B	C	D	E	F	G
A	x	x	x				
B			x		x	x	
C			x				

**Figure 4:** Rectangular Matrix showing relationship

The concept of four by four matrix alternatively known as square matrix and the rectangular matrix is identical only variation is their ability to relate unmatched items. Line diagram, on the other hand, is used to complete the investigation through social interaction. The illustration of line diagrams is given below in the following diagrams.

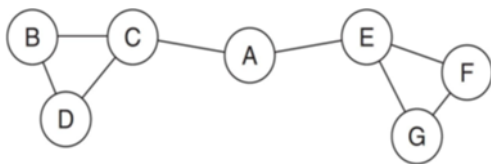


**Figure 5:** Five-Person Link Diagram



**Figure 6:** Large Network

Basics of line analysis includes collection of data, construction of matrix, diagramming the network and finally analyzing the relationship. Sometimes investigation is done through a center network. An illustration of this is given in the following diagram:



**Figure 7:** Line diagram with a center network

When analyzing all this diagram, it is important to understand the concept of density, connectivity, closeness, degree, and betweenness. Density means the speed at which information is spreading. The more the speed of information, the more chance there is for organizations to diffuse hurdles. Density is measured by the ratio of the number of connections and the number of possible connections. Connectivity assesses the overall strength of the network. The path of connection enables every actor in an investigation to approach each other. Connectivity and density are closely related to each other and both are important to target an organization that is a suspect of doing fraud. Like connectivity, closeness is also important in an organizational setting. If the distance is too large between the members of an organization there is a great possibility of occurring fraud in that organizational setting. Apart from knowing about density, connectivity, and closeness, it is also recommended to understand the organizational tie between members in that organization which is measured by the degree of connection that means with how many people a particular member is tied with. The degree is measured by star network. One illustration of degree is given below:

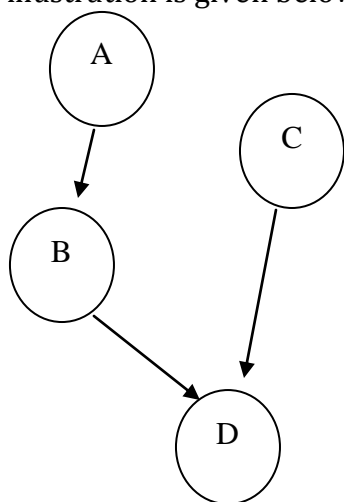


**Figure 8:** Star network

Among all the actors' everyone does not hold the highest power. This measure of expected power of an actor within a network is called betweenness. Putting everything all together a non-accounting expert can use these diagrams to measure the network of an organization and can make a presumption about possible sources of fraud and also can infer the possible findings of an investigation. Other than associational analysis another prevalent analysis is the temporal analysis which models the association of time and some other entity. Popular charts in the temporal analysis are time event chart, PERT and VIA. Time-Event Charts (TECs) analysis is based on historical data analysis and involves finding the standard time of doing fraud or malpractices. While TECs are based on the historical investigation, PERT is future-oriented and involves the planning of most efficient ways of performing an investigation and VIA is the final stage and involves discontinuing an investigation.

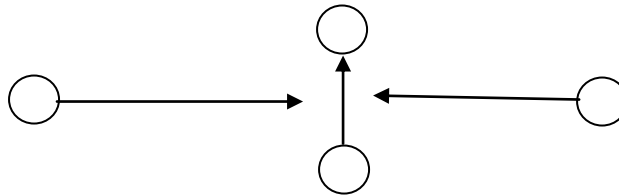
### Understanding Inferential Analysis in Forensic Accounting

Previously it is mentioned that most of the works of forensic accountants are based on postulates also known as a hypothesis. And the job of forensic accountants is to prove that the hypothesis is either right or wrong. The specific term that is used in forensic accounting is "Probandum" and "Penultimate" (Marphy, 2011; Wigmore, 1988; Anderson & Twining, 1991; James & Norby, 2003). According to Pedneault et al. (2012), "In legal terms, a probandum is simply the proposition we want to prove. Therefore, the ultimate probandum is the final proposition we are trying to prove. In most cases, the ultimate probandum will be that the defendant committed the criminal act. The penultimate probanda (plural of probandum) then become all the intermediate propositions that we must prove on our way to proving the ultimate probandum" (p. 201). The inferential analysis begins by setting up the inferential network. This network is generally presented in graphical form. From the graphical presentations, non-accounting experts need to understand the causal relationship. An illustration is given below:



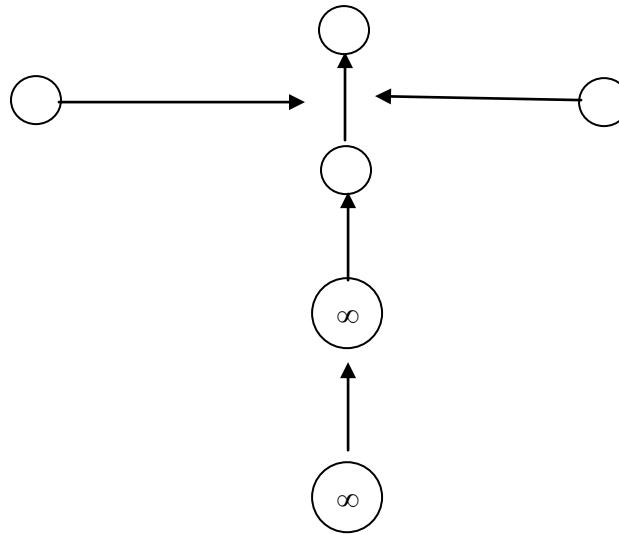
**Figure 9:** Causal relationship

Here the probability of happening D depends on the occurrence of events A, B and C. Non accounting experts also need to know what hypothetical charts mean. Postulates or assumptions are generally created by forensic accountants at the outset of an investigation. Based on the evidence gathered they try to prove their hypothesis. The following figure illustrates this issue:

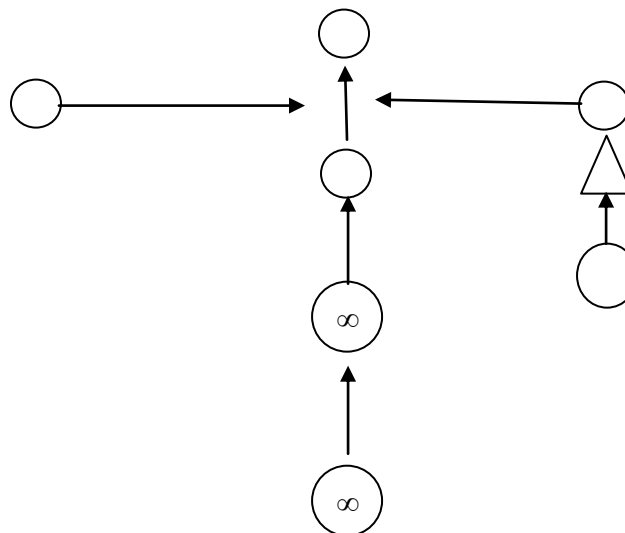


**Figure 10:** Relationship of ultimate and penultimate probanda

The other two graphical presentations that non-accounting experts need to know are how forensic accountants include supporting documents usually presented by “∞” symbol and create alternative theories presented by “Triangle sign”. The following diagrams deal with this.



**Figure 11:** Inclusion of supporting evidence



**Figure 12:** Inclusion of alternative theory

## Awareness towards Forensic Accounting

After the discussion of the importance of forensic accounting it will be interesting to see how aware firms are in this issue. For this investigation a sample size of 54 responders are selected from Bangladesh (a country where the concept of forensic accounting is still new) that are divided into three broad groups namely, top ranked accounting and auditing firms, multinational companies and local companies as these are the organizations that face and deal with organizational frauds frequently. To gather primary data a questionnaire is designed that comprises of eight questions. Those are given below:

1. Are you aware of Forensic Accounting?
2. Have you previously use the concept of forensic accounting in fraud and corruption detection?
3. Do you consider forensic accounting as a fraud detection tool?
4. Do you use any control method other than forensic accounting for fraud detection?
5. According to you does forensic accounting affect external auditing?
6. Do you believe that forensic accounting is the only method to detect transaction that are doubtful?
7. Do you consider using forensic accounting as a tool to measure the risk of fraud?
8. Are you obligated to use forensic accounting in the company?

The issues and respondents' opinions are analyzed in the following tables:

**Table 6** Respondents' opinions

Question no.	Accounting and Auditing Firms		Multinational Companies		Local Companies	
	Yes (Percentage)	No (Percentage)	Yes (Percentage)	No (Percentage)	Yes (Percentage)	No (Percentage)
<b>Q1</b>	96.28	3.72	78.42	21.58	29.56	70.44
<b>Q2</b>	73.89	26.11	64.51	35.49	17.84	82.16
<b>Q3</b>	88.56	11.44	56.28	43.72	9.06	90.94
<b>Q4</b>	64.89	35.11	64.16	35.84	19.81	80.19
<b>Q5</b>	71.43	28.57	66.92	33.08	11.05	88.95
<b>Q6</b>	56.98	43.02	67.29	32.71	7.92	92.08
<b>Q7</b>	75.19	24.81	71.06	28.94	9.11	90.89
<b>Q8</b>	48.82	51.18	34.1	65.9	2.81	97.19

It is evident from table 6 that accounting and audit firms are more aware in using forensic accounting for the detection of fraud and corruption, to detect transaction that are doubtful, to measure the risk of fraud followed by multinational companies and local companies are less aware of using forensic accounting in terms of the detection of fraud and corruption, to detect transaction that are doubtful, to measure the risk of fraud. It is also evident that in Bangladesh firms are not obliged to use forensic accounting in the organization to measure fraud After this questionnaire survey, a chi-square test is used to evaluate the relationship between awareness of forensic accounting and the type of companies. The following table deals with this relationship:



**Table 7** The relationship between awareness of forensic accounting and the type of companies

Question no.	Chi Square	df	Asymp. Sig.
<b>Q1</b>	9.208	2	0.010
<b>Q2</b>	2.398	2	0.311
<b>Q3</b>	6.690	2	0.031
<b>Q4</b>	0.028	2	0.976
<b>Q5</b>	2.936	2	0.030
<b>Q6</b>	0.479	2	0.789
<b>Q7</b>	2.383	2	0.302
<b>Q8</b>	0.979	2	0.214

It can be seen that there is a significant relationship between Q1 and type of companies this may indicate that the level of awareness in forensic accounting differs for each type of company. Q3 is positively associated with the type of company. This shows that different company have different policies regarding fraud detection. There is a positive and significant relationship between Q5 and the type of company this shows that individuals from different companies share different views on the effect of forensic accounting on external auditing.

### Ending Remarks

Forensic accounting is a technical subject in accounting that is different from mere auditing. Throughout history non-accountants are mixing auditing with forensic accounting. But from this theoretical review it can be opined that forensic accounting is quite different from mere auditing as audit's prime focus is on providing reasonable opinion but the scope of forensic accounting is more than just matching financial statements with "GODs" alternatively known as "Standards". It is also discussed that many prominent researchers have identified forensic accounting as a multidisciplinary field of knowledge. That's why non-accounting experts need to understand the concepts of forensic accounting. This theoretical review focuses on the basic areas of forensic accounting and tries to review the work of many prior researchers. It is argued that society is not aware of the so-called "White Collar Crime" and thinks that fraud in an organizational context is ignored as they do not constitute a substantial difference in returns and earnings of the organization. But big fraud cases like, Enron and WorldCom, shocked the world and forensic accounting becomes one of the prominent and challenging professions. That's why it is important for general non-experts to understand the basics of forensic accounting. They need to understand the financial statements, financial ratios, infographic communication language, and inferential analysis. This theoretical review is chiefly shaped by analyzing the work of Stephen Pedneault, Frank Rudewicz, Michael Sheetz and Howard Silverstone (2012). The contributions of this theoretical review include defining technical terms and combining the thoughts of many bright minds in this context to one place in an interconnected way so that non-accounting experts can understand the basics of forensic accounting. This study also provides an extract of awareness of firms that are situated in Bangladesh, where the concept of forensic accounting is still new, towards forensic accounting and finds that in Bangladesh still local companies are not aware about forensic accounting like accounting and auditing firms and big multinational companies.

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