

## Investigating the Efficacy of Forensic Accounting and Fraud Auditing Practices in Chennai-Based Audit Firms

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### ABSTRACT

This research paper delves into the critical role of forensic accounting and fraud auditing in uncovering financial irregularities in audit firms. The study employs a qualitative approach, utilizing interviews, and literature review to explore the nuances of forensic accounting and fraud auditing in audit firms. It examines the challenges faced by auditors in detecting and preventing fraud, the effectiveness of existing regulatory frameworks, and the implications for stakeholders. Key findings reveal the multifaceted nature of fraud schemes within professional service firms, highlighting the need for enhanced forensic techniques and proactive auditing practices. The research also underscores the importance of ethical leadership, corporate governance, and industry-wide collaboration in mitigating fraud risks. The insights generated from this study contribute to the evolving field of forensic accounting and fraud auditing, offering practical recommendations for improving detection mechanisms, strengthening regulatory oversight, and fostering a culture of transparency and accountability within professional service firms.

**Keywords:** Auditing Mechanisms, Forensic Accounting, Forensic Techniques, Fraud Auditing.

### INTRODUCTION

Fraud is an activity that takes place in a social setting and has severe consequences for the economy, corporations, and individuals. It is an opportunistic infection that bursts forth when greed meets the possibility of deception (Okafor M. C., Agbiogwu Andrew. A<sup>1</sup>, 2016). Forensic accounting is not a new concept though it has grown in popularity in recent years. It has come into limelight due to rapid increase in financial frauds and white - collar crimes. Forensic accounting is the combination of accounting, auditing, and investigative skills. It provides investigative functions and litigation support services to understand the depth and width of the financial scams happening in any economy. (Dr. Binod Shah<sup>2</sup>, 2021). Although, there are some acts like Prevention of Corruption Act 1988, Prevention of Money Laundering Act, Benami Transactions (Prohibition) Act 1988, Right to Information Act, Right to Public Services Legislation and The Lokpal and Lokayuktas Act 2013 but there is need of a sound mechanism which can enforce these acts successfully. Forensic accounting, being a very new branch of the accounting profession all over the world is relatively much newer in India. It is even doubtful if there is significant awareness of this branch of accounting among practitioners, students, and academicians in audit firms. With forensic accounting, it is anticipated that cases of fraud will be reduced significantly in audit firms in general and in the public service. This research therefore seeks to explore forensic accounting techniques and practices for fraud prevention and detection in audit firms.

### REVIEW OF LITERATURE

1. Mahmut Sami\_Öztürk\_Hayrettin\_Usul, (2020) researched on the topic “Contemporary Issues in Audit Management and Forensic Accounting.” The aim of this study is to determine the accounting fraud that may occur in enterprises within the framework of forensic accounting through rule-based expert systems. For this purpose, various applications have been implemented in a large-scale production enterprise through the use of rule-based expert systems for the determination of accounting fraud. Benford’s Law, risk levels, and various other criteria were used in the creation of expert systems. According to the results obtained from the study, it has been seen that by means of rule-based expert system applications, enterprises can better detect existing frauds and prevent further irregularities in the future.

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<sup>1</sup> Okafor M. C. (Ph.D.) and Agbiogwu Andrew. A (2016), Effects of Forensic Accounting Skills on The Management of Bank Fraud in Nigeria, European Journal of Accounting, Auditing and Finance Research Vol.4, No.6, pp.70-80, June 2016.

<sup>2</sup> Dr. Binod Shah, 2021, Forensic Accounting: A New Investigative Approach in Accounting, International Journal of Science and Research (IJSR)ISSN: 2319-7064.

**2. Ridhi Gupta, Dr. Sanket Vij (2021)** examined on the topic **“Financial frauds and forensic accounting: Empirical evidences from corporate sector.”** The present study examined the significance of forensic accounting in detection and prevention of financial frauds in the Indian Corporate Sector. The study discussed the utility of diverse techniques viz. Benford’s Law, Theory of Relative Size Factor, and Data mining in detection and prevention of financial frauds. Responses from 100 accounting professionals were collected through snowball and judgment sampling. The study depicts the positive significance of forensic accounting practices in fraud detection and prevention in the Indian Corporate sector. The outcomes of the present study will guide the policymaker and decision makers in detection and prevention of financial frauds.

**3. Kaur, B., Sood, K. and Grima, S. (2022)** researched on the topic **"A systematic review on forensic accounting and its contribution towards fraud detection and prevention."** This paper aims to determine how forensic accounting contributes to fraud detection and prevention. The authors used the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) method to carry out a systematic literature review (SLR) to identify and assess the existing literature on forensic accounting. The study found that there exists a positive correlation between forensic accounting and fraud detection and prevention. Moreover, in both the empirical and non-empirical findings, the authors note that fraud is complex, and in carrying out fraud investigations, one must be aware of its complexity.

**4. Capraş & Achim (2023)** examined on the topic **“Forensic Accounting and Its Effectiveness in the Detection and Prevention of Fraud.”** This study examined the skills and attributes of a forensic accountant, the techniques used in forensic accounting, and the challenges and opportunities in the development of the forensic accounting profession. The study’s sample includes 30 articles that were critically reviewed using a combination of systematic and traditional literature review methods. The main findings of the study suggest that the abilities and skills, as well as the techniques used in forensic accounting, make this function an effective tool in detecting and preventing fraud; however, they require more attention from academic institutions and specialized bodies that train accounting experts.

**5. Olubusola Odeyemi et al. (2024)** studied on the topic **“Forensic Accounting And Fraud Detection: A review Of Techniques In The Digital Age.”** The study delves into the contemporary landscape of forensic accounting, focusing on the integration of cutting-edge technologies and digital methodologies. The Review touches upon the multifaceted aspects, encompassing both traditional and advanced forensic accounting methodologies. The study encapsulates the primary themes explored in the review, including the application of data analytics, artificial intelligence, blockchain, and machine learning forensic accounting practices. The study aims to pique the interest of readers by offering a glimpse into the evolving landscape of forensic accounting, positioning it as a critical component in the fight against financial fraud in the digital age.

## NEED FOR STUDY

The need for the study is to explore how forensic accounting, practices and forensic audit would enhance fraud prevention and detection in audit firms. This study is done to prove awareness is effectiveness of use of techniques of fraud prevention and detection. Even though the Financial Statements audits were performed by the external auditors they are unable to identify the frauds in the Financial Statements. Further, the external auditors do not have a responsibility to detect frauds in the Financial Statements. Considering this the need for Forensic Accountants arises. As the Forensic Accounting is an emerging area and there is an increased need for forensic accountants and forensic accounting, this study attempts to identify whether this has been sufficiently addressed by forensic accounting.

## OBJECTIVES OF THE STUDY

1. To understand the mechanism of fraud prevention and detection, and their level of effectiveness.
2. To explore the level of awareness of forensic accounting techniques among practitioners in audit firms.
3. To examine the benefits to use forensic accounting techniques in fraud prevention and detection in audit firms.
4. To identify the major factors that interrupts the application of forensic accounting techniques in fraud prevention and detection in audit firms.

## RESEARCH GAPS

The current study attempts to analyze the different techniques and its effective usage. Even though studies have been done in different areas under the umbrella term “Forensic Accounting,” no techniques were specifically considered and studied under this umbrella term. In conclusion, the main short coming of previous studies that laid foundation to this research is:

- a) Lack of analyzing different techniques of fraud detection and their effective usage.
- b) Lack of testing hypothesis to analyze primary data which consists of the awareness and its impact in an organization.

## CONCEPTUAL FRAMEWORK

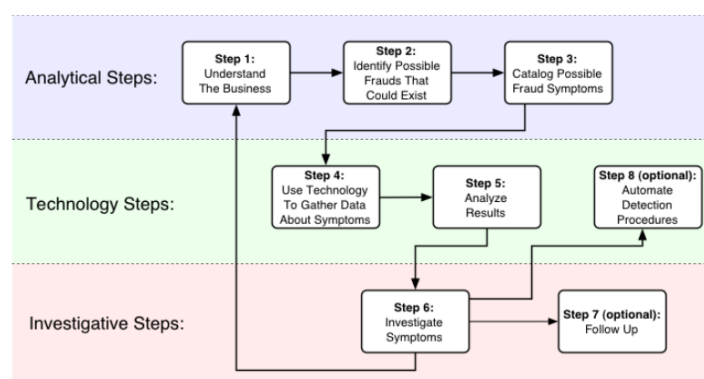
### FORENSIC ACCOUNTING

The word forensic comes from the Latin word *forēnsis*, meaning "of or before the forum." The integration of accounting, auditing and investigative skills yields the specialty known as Forensic Accounting. It is the study and interpretation of accounting evidence. It is the application of accounting methods to the tracking and collection of forensic evidence, usually for investigation and prosecution of criminal acts such as embezzlement or fraud (ICAI<sup>3</sup>, 2017). Forensic accounting includes the use of accounting, auditing, and investigative skills to assist in legal matters. It consists of two major components: litigation services that recognize the role of an accountant as an expert consultant and investigative services that use a forensic accountant's skills and may require possible court room testimony (Bhasin<sup>4</sup>,2007).

### FRAUD AUDITING

In a fraud audit one searches for the point where the numbers and/or financial statements do not mesh. It is a meticulous review of financial documents conducted when fraud is suspected. Some entities do them as a precaution to prevent fraud from happening and to catch it before the loss magnifies. A Fraud Audit however is not an Investigation. Fraud auditing is used to identify fraudulent transactions, not to figure out how they were created. Forensic Auditors can be engaged in public practice or employed by insurance companies, banks, police forces, government agencies and other organizations. (ICAI, 2017)

### FORENSIC AUDIT TECHNIQUES



Some of the Techniques that a Forensic Auditor may use are listed below:

- General Audit Techniques
- Statistical & Mathematical Techniques
- Digital/ Electronic Techniques
- CAATT
- Data Mining

### RESEARCH METHODOLOGY

Exploratory qualitative research was conducted by reviewing the literature on the subject, followed by online survey method to gather information from investors. A structured questionnaire was circulated among the investors. The primary data was collected by purposive sampling method using self-structured questionnaire among 120 auditors in Chennai city. The collected primary data have been statistically processed, classified, and tabulated by using appropriate methods. Tables, figures, and statistical results have been derived with the help of computer software package called SPSS [Statistical Package for Social Sciences]. The tools in the study are Percentage analysis, T-test, Factor Analysis, Multiple Regression and Two sample Z Test.

<sup>3</sup> Study on forensic accounting and fraud auditing (2017), ICAI, Sahitya Bhawan Publications, September/2016/P2012 Reprint.

<sup>4</sup> Bhasin, M. (2007), Forensic Accounting: A New Paradigm for Niche Consulting. The CharteredAccount, ICAI, New Delhi.

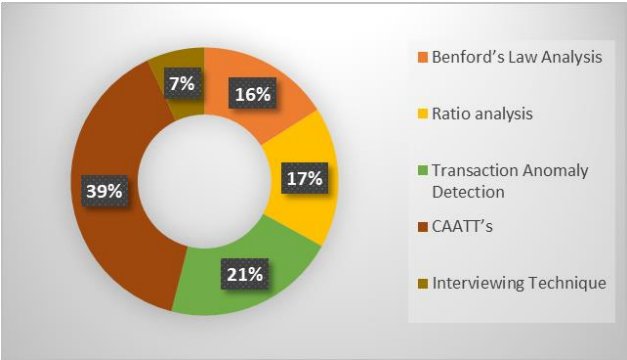
DATA ANALYSIS

**Table 1** explains the demographic composition of the auditors with around 30% of the respondents belong to the age group of 41-50 years and the least proportion of 18% are from 51-60 years where male constitute to 58% and female constitute 42%. Just as what audit firms are meant to be most of the respondents are CA (60%), CMA (51%), CS (29%) and MBA constitute for about 20%. The experience levels are diverse with significant proportion (39%) having 4-6 years of experience.

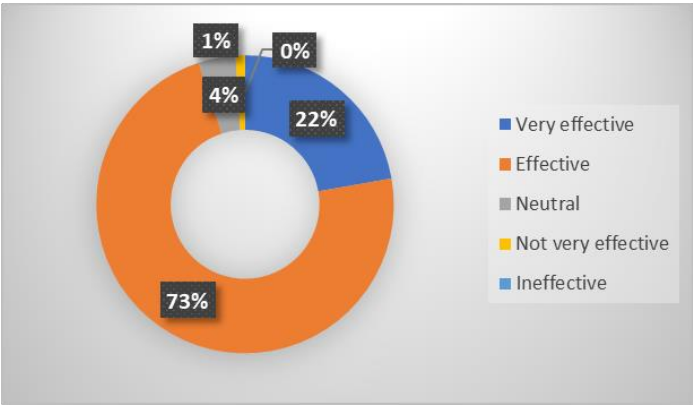
**Table 1 Demographic details**

Demographic Variable	Category	No of Individuals	Percentage
Age	18-30 years	35	29%
	31-40 years	28	23%
	41-50 years	36	30%
	51-60 years	21	18%
Gender	Female	70	58%
	Male	50	42%
Professional Qualification	CA	45	60%
	CMA	38	51%
	CS	22	29%
	MBA	15	20%
Experience	1-3	35	29%
	4-6	47	39%
	7-10	22	18%
	10 and above	16	13%

OPINION ON CHOOSING THE FORENSIC ACCOUNTING TECHNIQUE



From the chart it is found that 39% of the respondents feel Computer-assisted audit techniques (CAATTs) to be the most helpful, 7% feel interviewing technique to be helpful, 16% of the respondents feel that Benford's Law analysis as helpful forensic accounting technique, 17% of the respondents feel ratio analysis to be helpful and the remaining 21% feel transaction anomaly to be helpful.

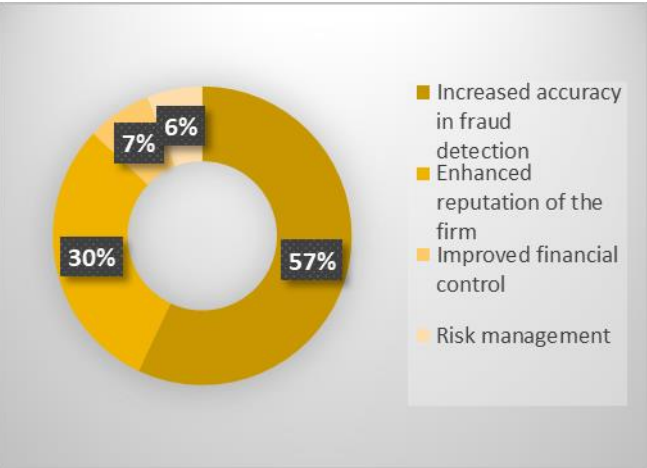


**SUCCESSFUL FRAUD PREVENTION MECHANISM**

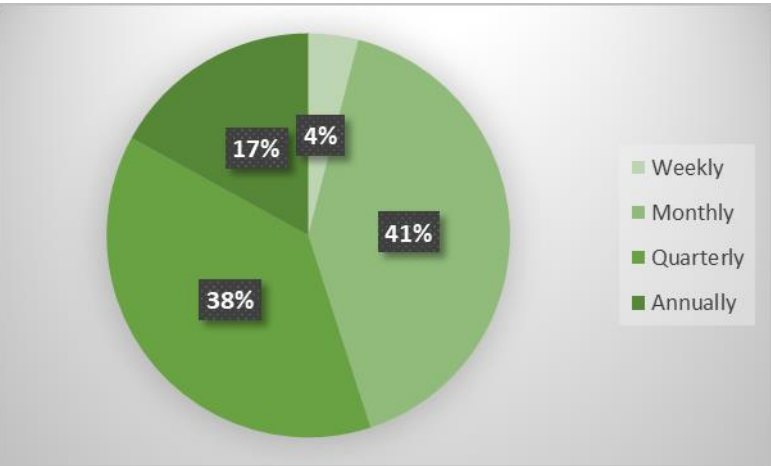
From the chart it is found that 51% feel whistleblower policies to be successful, 8% feel that employee training programs is successful, 27% of the respondents feel that internal audit is one of the successful fraud prevention mechanisms, and the remaining 14% of the employees feel fraud detection software to be successful.

**EFFECTIVENESS OF THE FRAUD PREVENTION DETECTION SYSTEMS**

From the chart it is found that 73% of the respondents feel that it is effective, 1% feel that it is not very effective, 22% of the respondents feel that the current fraud prevention detection system is very effective and the remaining 4% feel neutral on the effectiveness. None have responded that the mechanisms and techniques used as ineffective.



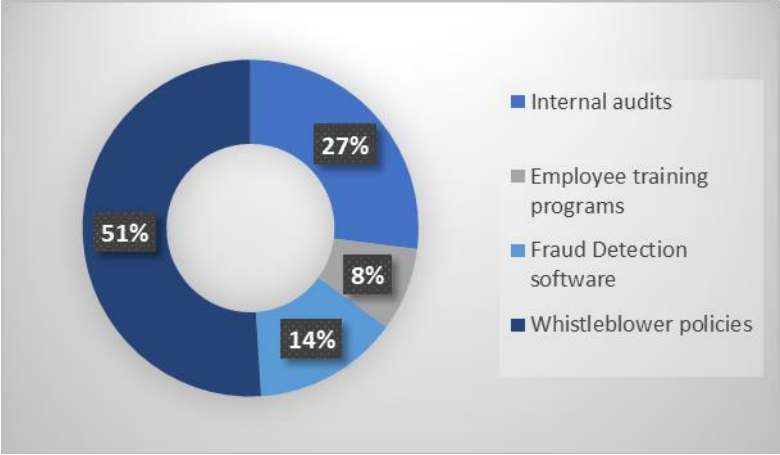
**PERCEPTION ON THE BENEFITS OF USING THE TECHNIQUES**



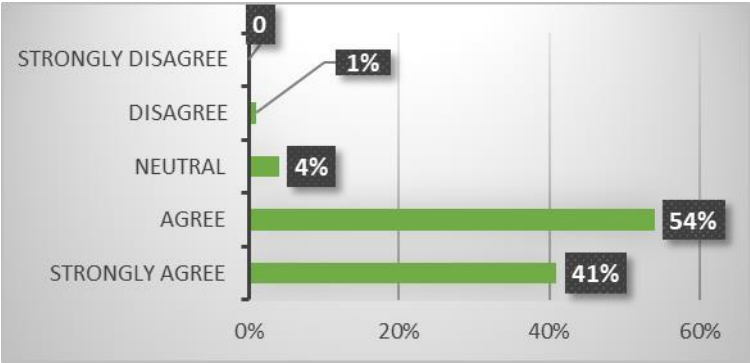
From the chart it is found that 57% of the respondents perceive that the benefit of using forensic accounting techniques as increase accuracy in fraud detection, 6% perceive it to be risk management, 30% perceive it to be enhance reputation of the firm, and the remaining 7% of them perceive as improve financial control.

**REVIEW OF FREQUENCY IN FRAUD PREVENTION AND DETECTION MECHANISMS**

From the chart it is found that 41% of the respondents say that fraud prevention and detection mechanisms are reviewed monthly, 4% say that it is reviewed weekly, 38% of them say that it is reviewed quarterly and the remaining 17% of the respondents say that it is reviewed annually.



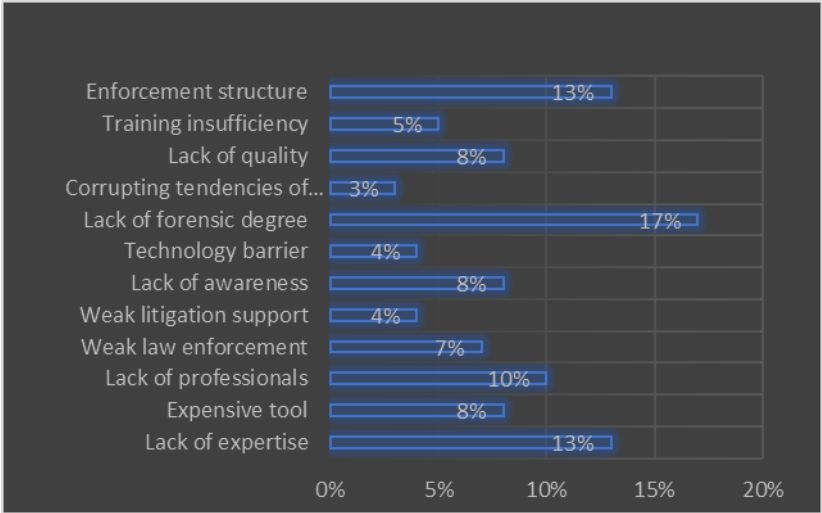
THOUGHTS ABOUT THE NEED FOR FORENSIC ACCOUNTING



From the chart it is found that 41% of the respondents strongly agree that forensic accounting techniques are necessary for fraud prevention, 54% agree to it, 4% are neutral to it, 1% disagree and no one disagrees to it.

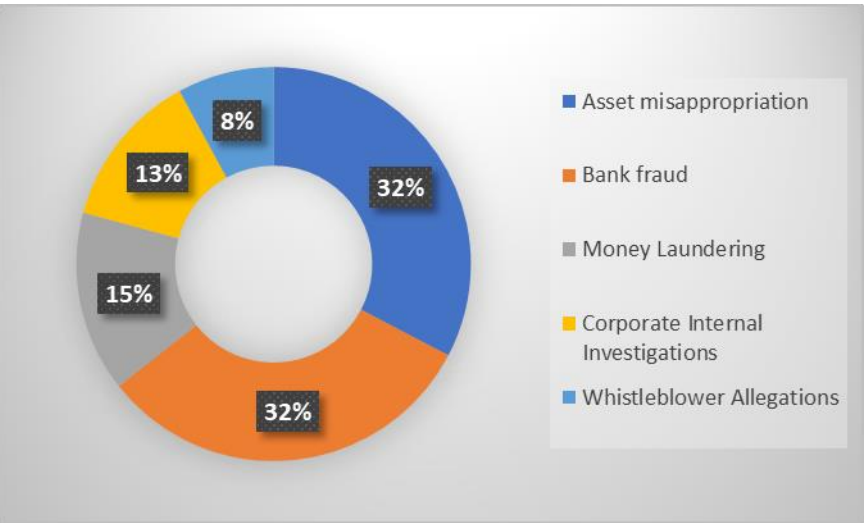
BARRIERS OF USING THE TECHNIQUES

From the chart it is found that 17% of respondents feel that lack of forensic education as a main barrier, 3% of them feel that Corrupting tendencies of experts as a challenge,13% of them feel that lack of awareness and weak litigation as a barrier and 10% of them feel that there is a lack of professionals in using these techniques.



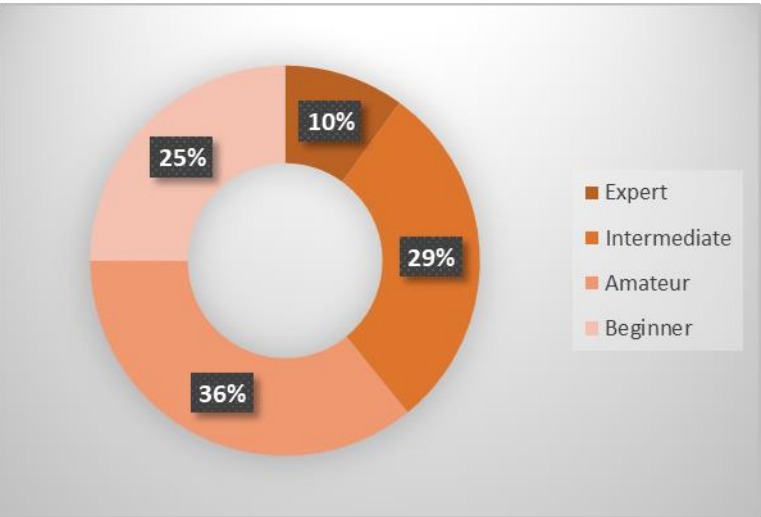
KNOWLEDGE IN FORENSIC ACCOUNTING TECHNIQUE

From the chart it is found that 36% of the respondents are graded as amateur in terms of knowledge in forensic accounting, 10% are experts, 25% are beginners, and the remaining 29% are in intermediate level.



ROLE PLAYED BY FORENSIC ACCOUNTING IN FINANCIAL CRIME CASES

From the chart it is found that forensic accounting is helpful in preventing financial crimes and fraud such as asset misappropriation (32%), bank fraud (32%), money laundering (15%), Corporate internal investigations (13%) and whistleblower allegations (8%).



RELATIONSHIP BETWEEN PERCEIVED EFFECTIVENESS AND ACTUAL USAGE OF FRAUD DETECTION MECHANISMS

**Null Hypothesis(H<sub>0</sub>)-** There is no significant difference between the perceived effectiveness of fraud prevention and detection mechanisms, and their actual usage in the audit firms.

**Alternative Hypothesis(H<sub>1</sub>) -** There is a significant difference between the perceived effectiveness of fraud prevention and detection mechanisms, and their actual usage in the audit firms.



**Table 2 T-Test**

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	of the Difference				
				Lower	Upper			
Actual Usage - Effectiveness	-.04196	.44351626	.09455798	-.23860794	.15468024	.444	21	.662

**Table 2** shows the Paired Sample T- Test which was conducted to find the relationship between the effectiveness and the actual usage of fraud detection mechanisms. Its two tailed significant value in its last column 0.662 which is higher than stipulated significant value of 0.05. So, it can be concluded that there is no significant difference between the perceived effectiveness of fraud prevention and detection mechanisms, and their actual usage in the audit firms.

### COMPARISON ON THE LEVEL OF AWARENESS BETWEEN FORENSIC ACCOUNTANT AND GENERAL ACCOUNTANT

**Null Hypothesis (H<sub>0</sub>)** - There is no significant variation in the level of awareness of forensic accounting techniques among general accountant and Forensic Accountant.

**Alternative Hypothesis (H<sub>1</sub>)** - There is a significant variation in the level of awareness of forensic accounting techniques among general accountant and Forensic Accountant.

Table 3 Z-Test: Two Sample for Means		
	Forensic Accountant	General Accountant
Mean	3.988764	1.890728
Known Variance	0.738509	1.047821
Observations	10	28
Hypothesized Mean Difference ( $\mu_1 - \mu_2$ )	0	
Z	10.1222	
P(Z<=z) one-tail	0	
z Critical one-tail	1.644854	
P(Z<=z) two-tail	0	
z Critical two-tail	0.959964	

**Table 3** shows the Two sample Z test for comparing of the awareness of forensic accounting techniques among general accountant and Forensic Accountant. The arithmetic means (3.99 and 1.89) and the P values (1.64 and 0.99) have a huge difference between them indicating that H<sub>1</sub> should be accepted. Thus, there is significant variations in the level of awareness between general accountants and Forensic accountants.

### SUMMARY OF THE FINDINGS

1. The highly used forensic accounting techniques are CATTs and transaction anomaly techniques where software is being employed for fraud detecting. Similarly, widely used successful mechanism of fraud prevention is Whistleblower policies and internal audits. This shows the updating nature of forensic accounting and fraud prevention which has passed from traditional methods of fraud detection.
2. The survey shows that the forensic accounting is highly used by all the auditors and they feel them as an effective tool is preventing and detecting fraud. This shows that the auditors are aware on the usage of tools and techniques but only the specialized forensic accountants have more awareness than the general accountants which is evident from two sample Z- test.
3. The auditors feel that the use of these tools helps in preventing fraud and increases the reputation of the firm along with the goodwill of the company as no fraud found of the company creates trust among the stakeholders. This evidently throws light on the matter that this trust could be bought only when the forensic tools are used and reviewed regularly.
4. The auditors today feel that the forensic tools and fraud prevention mechanisms are much needed in the industry but the



level of knowledge among them pertains between amateurs and Intermediates. Though the T-test shows that effectiveness and their usage does not show any deviation there is lack of expertise to use it even more effectively.

5. The main barriers in using these tools and techniques are the lack of forensic degree, expertise, professionals, and the enforcement structure.

6. Forensic tools are effective in prevention of financial crimes such as asset misappropriation and bank fraud which are the highly committed frauds.

### **SUGGESTED IMPLICATIONS**

1. The employees today are using digital techniques such as CAATT's but the world today is ruled by automation. There are new AI tools for fraud detection such as LIME (Local Interpretable Model-Agnostic Explanations). Thus, forensic accountant must start upgrading themselves with the new development mechanism and tools.

2. According to the research many barriers were listed of which forensic education/degree and lack of expertise tops the list. This is a major barrier as auditors without prior knowledge needs more training and practice. This in turn increases the cost and resources. Thus, the professional auditors must qualify in Post Qualification Certificate Course on Forensic Accounting and Fraud Detection developed by The Institute of Chartered Accountants of India in which professional members can learn the nuances of this emerging and relevant field.

3. Though the auditors are updated on the developments and upgrades themselves constantly, the knowledge gained would be constrained only to some extent and for a particular cause/ particular fraud detection. According to the research, one among the main barrier mentioned is lack of enforcement. Thus, auditors and the accountants must have forensic accounting included in their academics which increases the expertise.

### **SCOPE FOR FURTHER RESEARCH**

Forensic accounting is a new branch of accounting as far as academic work is concerned and their adoptions particularly in developing economies like India. Moreover, the present study is also not without some limitations. Hence, the following suggestions are made to take the present work further. First, further studies could adopt a cross-country or cross-cultural approach to improve the generalizability of the research findings and possibly compare the results across different countries. Second, samples for further studies could be enlarged to include the views of lawyers who are stakeholders in the practice of forensic accounting. This could provide further insight into the practice of forensic accounting in India. Lastly, the statistical tools used in this research could be upgraded or some other models could be used to explore further. This could be done using cross-cultural data.

### **CONCLUSION**

Financial fraud refers to the use of deceit, misrepresentation, or other dishonest means to obtain financial gain. This can take many forms, such as embezzlement, insider trading, money laundering, and Ponzi schemes. To address the problem of financial frauds in India, it is important for individuals and businesses to be aware of the risks and to take steps to protect themselves. This can include implementing strong internal controls and maintaining good financial records, as well as being cautious about giving out personal or financial information to unknown parties. It is also important for law enforcement agencies to work to identify and prosecute financial fraudsters, and for the government to implement effective policies and regulations to help prevent and combat financial fraud.

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