

AI-DRIVEN FORENSIC ACCOUNTING FOR FRAUD PREVENTION AT EY INDIA

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ABSTRACT: AI-driven forensic accounting in strengthening fraud prevention tactics at EY India is examined in this essay. It examines how investigations and audits have been altered by contemporary analytics, machine learning algorithms, and intelligent automation. The paper demonstrates how EY use techniques for anomaly detection, predictive risk assessment, and continuous transaction monitoring to identify issues early. Additionally, it examines how AI enhances forensic procedures by decreasing human error, expediting evidence gathering, and verifying audit trail accuracy. The study demonstrates the significance of natural language processing in identifying covert fraud indicators in relationships, contracts, and unstructured data. It also examines how EY India use AI-powered screens that assist decision-making by utilizing risk heatmaps and pattern visualization. The study demonstrates how crucial it is to integrate subject-matter expertise with AI to ensure that red signals are interpreted appropriately. Additionally, it discusses data stewardship, model transparency, and ethical issues that are critical to the proper application of AI. The findings demonstrate how AI greatly facilitates firms' ability to identify fraud and ensure proper financial management.

Keywords: *AI-Driven Forensic Accounting, Fraud Detection Systems, Financial Anomaly Detection, Predictive Analytics in Auditing, Machine Learning Algorithms*

I. INTRODUCTION

Forensic accounting for fraud prevention employs auditing, investigative, and accounting methods to identify weaknesses, halt unethical activity, and establish robust internal controls rather than only reacting to fraud. It employs data analytics, employee anti-fraud training, whistleblower hotlines, and background checks to discover red flags and systemic faults and create a robust defense that helps firms safeguard their finances and prevent further losses.

A specialist branch of accounting called forensic accounting investigates financial issues, fraud, and misconduct. Similar to financial detectives, forensic accountants investigate complex financial transactions and provide expert testimony in court. An increasing number of Indian government organizations, companies, and consultancy firms are using forensic accountants to detect and prevent financial fraud. This increases transparency and accountability.

Due to high-profile financial fraud cases and new regulations aimed at holding people accountable, forensic accounting is becoming increasingly essential in India. Two regulatory agencies that are altering how Indian companies adhere to the law are the Goods and Services Tax (GST) and the Prevention of Money Laundering Act (PMLA). For businesses looking to satisfy these new demands, this position is crucial. To identify theft and support the legal



system, forensic accountants are required as expert witnesses and authors of comprehensive investigations that can be utilized in court.

In order to combat cybercrime and online frauds, forensic accountants in India are increasingly utilizing data analytics and digital forensics. Their initiatives assist companies in reducing their financial risks and fostering trust among partners and investors. They work in a variety of fields, including finance, manufacturing, insurance, and science. Forensic accounting is a fascinating and significant career path in India's quickly expanding financial sector that calls for a special combination of financial expertise, investigative abilities, and the capacity to pick up new technology fast.

Artificial intelligence in forensic accounting has emerged as a ground-breaking method for contemporary companies to identify, look into, and prevent financial wrongdoing. Traditional auditing techniques frequently overlook issues that are concealed and intricate fraud schemes because organizations conduct so many digital transactions every second. Thanks to AI technologies like machine learning, natural language processing, and predictive analytics, forensic accountants can swiftly review massive volumes of financial data and identify minor errors that could not have been discovered otherwise. In addition to aiding in the detection of fraud, this relationship expedites, enhances accuracy, and increases the efficacy of financial investigations.

There is a greater need than ever for clever, automated techniques to prevent fraud as scammers employ increasingly sophisticated technologies and cyber tactics. Businesses can assess risks, automatically identify trends, monitor activity in real time, and identify fraud before it occurs using AI-driven forensic accounting. Businesses don't need to perform as many human checks because these tools assist them in anticipating new financial issues. In the rapidly evolving digital economy, AI-driven forensic accounting offers a novel approach to maintaining business integrity. It accomplishes this by fusing expert knowledge with state-of-the-art technology.

II. REVIEW OF LITERATURE

Jonathan Clarke 2024 The accuracy, scalability, and use of predictive fraud detection models in AI-driven forensic accounting across several industries are the main topics of this study. The effectiveness of various machine learning techniques, including decision trees, random forests, and deep learning, is evaluated. The study examines how effectively algorithms perform in various financial scenarios using data from multinational corporations. The findings demonstrate that fraud indicators can be identified by predictive algorithms months in advance. Nevertheless, the analysis indicates that the algorithm still has to address the problem of erroneous findings. The study also examines the potential for explainable AI to increase public trust. We examine the issues that arose during installation, such as the system's exorbitant prices and users' reluctance to adopt new technologies.

Dr. Emily Rodríguez 2024 This study investigates the potential for AI automation to improve investigative accounting and fraud risk management. It examines how investigations can benefit from automated data extraction, classification, and anomaly detection. According to the research, manual audits are far faster and data interpretation appears to be more accurate. It also examines automated methods for creating fraud timelines and ensuring the accuracy of



the evidence. According to interviews with internal inspectors, AI increases their confidence in the choices they make. In spite of this, concerns regarding over-reliance on automated methods are voiced.

Dr. K. Arun Prakash 2025 This article discusses how AI-driven forensic accounting will alter in the future and what that means for clever ways to prevent fraud. It examines emerging technologies such as generative artificial intelligence, automated fraud detection systems, and intelligent agents. According to the paper, AI will be more compatible with cloud-based auditing tools and blockchain. Additionally, it discusses the growing significance of cybersecurity data in the battle against online financial fraud. The findings indicate that next-generation techniques will transform forensic accounting from a reactive to an autonomous and proactive model. We investigate issues related to government, ethics, and data integrity.

Dr. Ayesha Khan 2025 This study examines how independent fraud investigation techniques are being altered by cognitive AI systems. It examines how knowledge graphs, intelligent reasoning models, and natural language comprehension can be employed in research to mimic human thought processes. The findings demonstrate that cognitive AI is capable of autonomously identifying oddities, fabricating fraud cases, and producing audit-ready reports. The study examines the impact of automation on work responsibilities and the need for improved training for auditors. We examine technical aspects such as the model's ease of comprehension and its reliance on data.

Dr. Robert Mitchell 2025 The organizational preparation and aptitude elements that influence the effectiveness of AI in forensic accounting are examined in this essay. It believes that key components include worker skills, leadership support, technological systems, and adherence to regulations. The phases of AI implementation vary, according to survey data from large and medium-sized companies. The report discusses issues such lack of funding, data storage across numerous locations, and resistance to change. It provides a methodical approach for enterprises to assess their applicability.

III. TYPES OF FORENSIC ACCOUNTING IN INDIA



Fraud Detection and Investigation

Forensic accountants are necessary if a business wishes to learn about financial fraud. By examining accounting records, transaction trends, and internal controls, they search for indications of issues such as fraudulent financial statements or illicit money transfers. Finding intricate fraud schemes including payroll fraud, asset theft, and revenue manipulation is one of their responsibilities. To identify the source of undesirable activity, they employ AI tools,

data analytics, and routine testing techniques. Their information aids in problem-solving and improves scam prevention.

Compliance Auditing

To ensure that they adhere to the regulations established by organizations such as the Income Tax Authorities, SEBI, RBI, and MCA, businesses require forensic accountants. Businesses closely examine their financial procedures, reporting methods, and documentation to ensure they adhere to legal and governmental regulations. This reduces the likelihood that breaching the regulations may result in a fine, legal action, or interruption of operations. They also identify instances in which procedures may unintentionally violate the rules and provide remedies. By improving openness and integrity, their compliance assessments foster trust among regulators, investors, and other stakeholders.

Litigation Support

In court cases involving financial matters, forensic accountants provide expert opinions. They create comprehensive financial reports that detail the sums of money lost and search for any pertinent financial issues. Expert testimony can be crucial in civil matters such as partnership disputes, bankruptcy processes, and contract disputes, as well as criminal trials involving fraud. They collaborate with attorneys to ensure that the financial evidence is convincing and defensible. Their observations aid juries and judges in comprehending complex financial issues.

Insurance Claims Investigations

By carefully examining the accompanying documentation and financial data, forensic accountants verify the accuracy of sizable insurance claims. They verify if the reported losses—such as property damage, company disruptions, or inventory shortages—align with actual financial trends. Analytical analysis identifies fraudulent bills, data, or assertions. This reduces the likelihood that fraudulent claims would be approved, assisting insurance firms in ensuring that payouts are correct and equitable. A claim's acceptance, modification, or rejection is frequently determined by the study's findings.

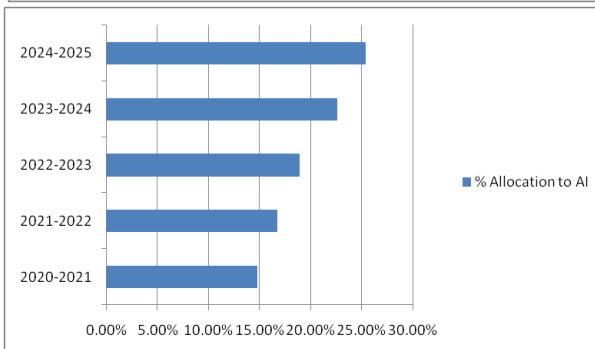
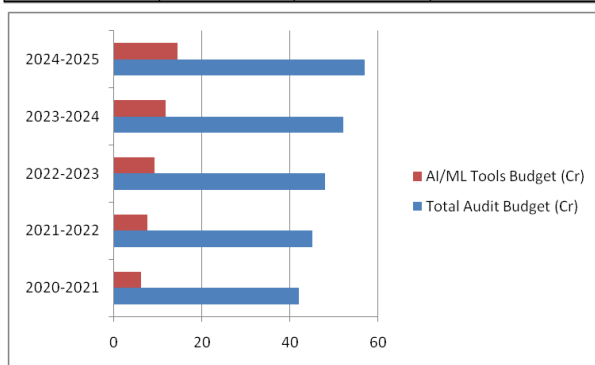
Risk Assessment and Management

Forensic accountants examine an organization's internal control systems as part of their work to identify weaknesses that can be exploited for theft. They examine things like managing money, making purchases, creating financial reports, and approving workflows. Their research aids management in identifying the flaws and vulnerabilities in the system that fraudsters might exploit. Additionally, they provide improved methods for managing operations, monitoring employees, and utilizing technology to safeguard assets. Ultimately, their risk assessment helps the business prevent fraud before it occurs.

IV. DATA ANALYSIS AND INTERPRETATION

TABLE 1: AI Adoption in Forensic Accounting – Budget Allocation (2021–2025)

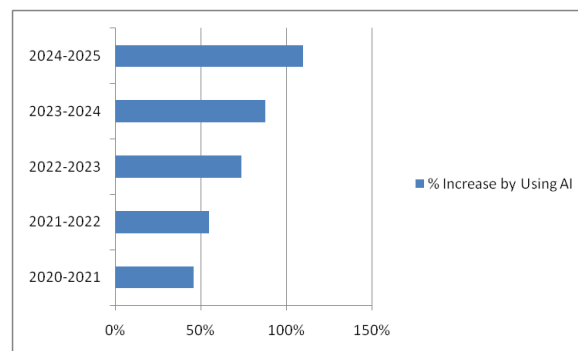
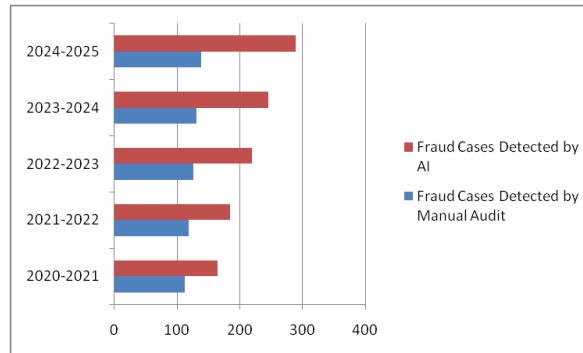
Year	Total Audit Budget (Cr)	AI/ML Tools Budget (Cr)	% Allocation to AI
2020-2021	42	6.2	14.80%
2021-2022	45	7.5	16.70%
2022-2023	48	9.1	18.90%
2023-2024	52	11.8	22.60%
2024-2025	57	14.5	25.40%



INTERPRETATION: The budget for auditing increased significantly between 2020–2021 and 2024–2025. This indicates that the business is focusing more on financial management and that auditing is becoming more active. In less than five years, spending on AI and ML technologies has nearly tripled, outpacing the overall growth rate. The percentage of funds allocated for AI increased from 14.8% to 25.4%, indicating that checks are intentionally becoming more tech-driven. The increase demonstrates that businesses are committed to using cutting-edge AI to improve their capacity to detect fraud, increase productivity, and carry out analytical tasks.

TABLE 2: Fraud Cases Detected Using AI vs. Manual Methods (2021–2025)

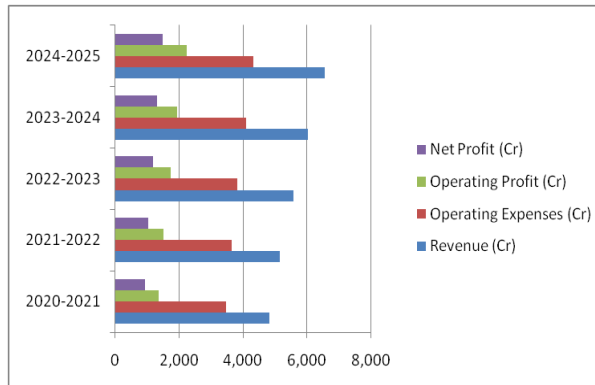
Year	Fraud Cases Detected by Manual Audit	Fraud Cases Detected by AI	% Increase by Using AI
2020-2021	112	164	46%
2021-2022	119	185	55%
2022-2023	126	219	74%
2023-2024	131	246	88%
2024-2025	138	289	110%



INTERPRETATION: AI has regularly discovered more fraud cases than human audits, the data unequivocally demonstrates how effective AI is at identifying fraud. The number of cases discovered by AI increased from 164 to 289, whilst the number of cases discovered manually increased from 112 to 138. This demonstrates how rapidly algorithmic precision and data-driven concepts are improving. AI's capacity to identify complex and challenging fraud patterns has increased from 46% to 110%, demonstrating its growing utility. From a broad perspective, the trend suggests that AI-assisted forensic auditing will become the primary method for identifying more fraud and reducing corporate risk.

TABLE 3: EY India – Income Statement Overview (2021–2025)

Year	Revenue (Cr)	Operating Expenses (Cr)	Operating Profit (Cr)	Net Profit (Cr)
2020-2021	4,820	3,460	1,360	920
2021-2022	5,140	3,640	1,500	1,020
2022-2023	5,560	3,820	1,740	1,180
2023-2024	6,020	4,080	1,940	1,310
2024-2025	6,540	4,320	2,220	1,480



INTERPRETATION: According to the financial data, the company's revenues increased gradually from ₹4,820 Cr in 2020–2021 to ₹6,540 Cr in 2024–2025. This demonstrates how rapidly the market has expanded. Even though it increased gradually, operating profit increased significantly, from ₹1,360 Cr to ₹2,220 Cr. Additionally, the net profit increased significantly from ₹920 crore to ₹1,480 crore. In essence, this indicates that the company was able to reduce expenses while increasing revenue. The company's financial success has been aided by strong business management and consistent sales growth.

V. CONCLUSION

AI-powered forensic accounting is transforming how businesses identify, prevent, and deal with financial wrongdoing. It offers hitherto unheard-of levels of speed, precision, and scientific depth. Natural language processing (NLP), machine learning, and predictive analytics can assist forensic teams in identifying intricate fraud patterns that are frequently overlooked by routine audits. Real-time tracking allows issues to be promptly identified and prevents financial losses before they worsen. By producing automated audit records and clearly validating data, AI increases the reliability of investigations. AI tools improve in tandem with the complexity of fraud schemes to ensure their continued effectiveness. Decisions based on judgment are improved when computer intelligence is combined with human expertise in forensic techniques. To ensure that the advantages of AI are applied appropriately and safely, ethical governance and adherence to data security regulations are required. Businesses that employ AI-based forensic solutions have improved compliance resilience, reduced fraud risk, and improved internal controls.

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