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Artificial Intelligence In Audit Process – Its Use And Challenges In Indian Perspective And Advanced Countries

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Abstract:
Artificial intelligence (AI) is transforming the auditing landscape by improving accuracy and efficiency while lowering auditor risk when auditing an entity's financial statements. The study aims to comprehend how AI is used to carry out the auditing procedure. To find important areas where AI tools like robotic process automation (RPA), machine learning (ML), and natural language processing (NLP) data analytics can be used to streamline audit procedures and enable continuous auditing, a thorough review of the current literature on the subject has been conducted. When comparing the audit process in the Indian business environment to that of industrialised nations, the report identifies important issues such as a lack of technology, technical skills, data security and privacy, regulatory and legislative systems, and cultural and legal aspects. When using IA in auditing, it also identifies the ethical considerations and infrastructure needs.
In order to help auditors, organisations, and regulators use AI to increase the effectiveness and transparency of the audit process, this paper offers specific recommendations for better integration of AI in the auditing process, specifically in the Indian context.
Key Words: *Audit Process, Artificial Intelligence, Challenges of AI*

INTRODUCTION:

As the present era is the information and technology era, AI is gaining momentum and shows enormous potential to change every operation involved with the business, including accounting and auditing. Auditing is one such field that has been dramatically affected. Historically, auditing has been a painstaking and labour-intensive procedure, and it is increasingly incorporating AI technologies to improve accuracy, efficacy, and efficiency.

The objective of this research study is to understand the various direct and indirect advantages of the application of AI in auditing and to identify challenges in application of AI in the audit process from the Indian context and compare the challenges in advanced countries to suggest some of the measures that can implemented to enhance the application of AI in audit from Indian context.

In order to create confidence in the minds of stakeholders in general and shareholders in particular, the auditor prepares the financial statements by reviewing the financial records and issuing an opinion report stating that the financial statements are free from material errors and comply with the applicable accounting standards. In this process, the auditor must obtain much information, verify the financial

records, vouchers, and transactions, and apply the sampling methods to conclude the financial transactions they confirm to be accurate and fair.

According to Panetta (2019), Gartner defines artificial intelligence (AI) as the use of sophisticated analytical and logic-based methods, such as machine learning (ML), to comprehend events, support and automate choices, and take action.The application of AI to auditing has the potential to revolutionise the field. Auditors can use AI algorithms to advance their careers and meet the expectations of the modern business world. Artificial intelligence (AI) can streamline auditing procedures, enhance risk assessment methods, and help identify irregularities or fraudulent activity that could go unnoticed. AI can also handle enormous volumes of data, giving auditors a more comprehensive picture of the businesses they examine and broader views. AI assists the auditor with risk assessment, one of the most important aspects of auditing. Large datasets can be analysed, trends and threats can be found, and workflow can be managed with AI-powered solutions. Large-scale data processing made possible by AI improves accuracy and lowers the auditor's audit risk when reviewing the data. By using AI techniques to comprehend the patterns and anomalies, auditors can better allocate resources and focus on high-risk regions.

The AI enables auditors to verify financial statements and other relevant and related documents thoroughly and precisely. AI can analyse data in real-time and apply complex algorithms to find differences and defects that can indicate a financial error or fraud. By mechanising the tasks, auditors can concentrate more on strategic areas, as well as value-added activities, to improve business procedures and controls. There is a need for a shift in auditor skills when the auditor moves from legacy or traditional systems to AI systems. Since AI takes on repetitive tasks, the auditor needs to upgrade to the new skills to apply these new technologies. In the fast-changing techno world, auditors need to understand, comprehend and use AI-generated insights, use professional skepticism and pass through the ethical and legal frameworks around AI. As per Price Water Coopers (2021), by automating data extraction, conducting predictive analysis, and giving real-time irregularities, artificial intelligence (AI) can increase audit quality, efficiency, and effectiveness.

Deloitte India (2020) mentioned in its report that more SME audit firms need more resources and know-how to implement AI tools on a large scale, which is why many auditors still follow traditional audit processes. The CA Institute of India (ICAI), a significant regulatory authority, has recognised AI's revolutionary potential in auditing. However, there are still gaps in developing clear guidelines for applying AI, ethical considerations, and liability issues (ICAI, 2022).

Regarding the Indian situation, there is a gap in research on using AI in the audit process. This paper sheds some light on areas where things need to be improved so that the auditing profession can apply AI in audits. The use of AI in audit is not just mechanising repetitive tasks; it changes the role and function of auditors in terms of know-how for performing the function of audit. The technology function should be appropriately aligned with the audit function to achieve the audit objective. To improve the services and provide better customer value, Indian auditors need to consider using AI in their audit process. For this, there needs to be a well-crafted legal and regulatory framework to suit the Indian situation so that the application of AI in audits can comply with ethical and legal requirements.

Finally, this paper provides specific suggestions based on the experiences of advanced countries for the proper integration of AI tools in auditing in the Indian context.

AI and audit process - review of literature

Commercial entities have undoubtedly acknowledged that AI has significantly revolutionised several operations, including auditing. AI uses natural language processing, robotic process automation, and machine learning to improve audit performance and ensure continuity. The literature study clearly outlines AI's function, benefits, and pitfalls in auditing and future improvements to improve the audit process.

According to Rossi (2019), AI is a technical discipline that aims to create systems capable of executing various tasks while incorporating human intelligence to achieve its goals. According to Oliveria (2019), AI presents a unique challenge in characterising and replicating, as several suggestions have been made over time to replace human cognitive power with a computer. He also stated that AI is the ability of

humans to build languages and manipulate symbols using specific systems made up of beliefs and know-how, which is unique to humankind. As per Mijwel (2015), artificial intelligence (AI) is the development of machines that can behave like humans without relying on biological things.

Duarte (2010) defines auditing as a service that provides an objective opinion on an entity's financial statements based on public interest standards and contributes to financial information credibility. As the global economy grows and companies become more complex, there is a greater need to provide accurate data to users of financial information. The introduction of AI is expected to continue these changes.

According to Sherif and Mohsin (2021), accountants and auditors view AI as a tool to help auditors manage complicated and volatile data. Therefore, AI allows accountants and auditors to provide and analyse economic and financial data (Giles. 2019).

Szczepański (2019) pointed out that AI can drive economic and productivity growth by creating new products and services, leading to increased consumption and revenue streams.

According to Gillham et al. (2018), AI will generate 14% of global GDP growth by 2030. Based on Szczepański's (2019) work, they found that introducing AI into the economy might both create and destroy jobs.

According to Byrnes et al. (2018), auditing is facing a catastrophic scenario due to IT advancements and adopting new management styles. According to Dalal (2015), auditors will rely more on software as the world population grows and economic transactions become more complex. Manual audit procedures will become less common and ineffective in many organisations.

As Nunes, Leite, and Pedrosa (2020) point out, given the growing difficulty in gathering data or drawing conclusions regarding the financial and non-financial performance of the audited entity, it will be necessary to introduce tools with cognitive abilities to lower the risk of material misstatement and ensure the accuracy and reliability of the audited financial statements.

According to Kokina and Davenport (2017), using AI in the audit industry will become more commonplace because it is the sole method by which auditors can evaluate big data sets and, as a result, it guarantees the correctness and dependability of financial information.

It is stated that there is a universal assumption that as technology and organisations advance, it will become more challenging to perform manual auditing activities. As a result, tools with cognitive capabilities would inevitably be used to support auditors.

Thus, the following points outline how these tools can be used in the different audit stages, point out the possible consequences of doing so, and, finally, compare the conventional audit technique with the method supported by thinking tool support.

Even though AI has not been applied extensively in auditing yet, several authors have addressed certain possible disadvantages. Agnew (2016) asserts that the application of AI in auditing will not lead to the profession's demise or replacement but rather to substantial changes in present practices that will allow auditors to allocate their time better to low-value tasks and concentrate more on areas where there is a greater risk of material distortion. Byrnes et al. (2018) state that automating audit tasks and not being able to analyze an organization's statistics fully can have adverse effects.

According to Ghanoum and Alaba (2020), technological advancements may shift the auditing profession from reactive to more proactive. According to Brennan et al. (2017 The field will take a real-time, ongoing approach, which is different from the current practice of the most significant incidence of work occurring after an organisation's accounting closes.

Furthermore, according to research by the American Institute of Certified Public Accountants (AICPA), employing AI could lessen workers' likelihood of fatigue when processing repeated data for a company. Admits that artificial intelligence (AI) techniques can analyse vast volumes of data and identify links, patterns, and distortions that auditors might not always be able to perceive. Auditors must use their professional knowledge and competence to ascertain whether the findings are correct and significantly pertinent to the audit situation (AICPA, 2020).

Agnew (2016) asserts that authorities must set up systems that enable auditors to precisely collect and analyse data, offering an acceptable level of assurance regarding the financial status based on financial statements.

AI and Audit process:

AI technologies enhance audit accuracy and thoroughness by enabling auditors to evaluate complete datasets rather than just samples (Kokina & Davenport, 2017). The transition from sampling to comprehensive data analysis improves audit quality by allowing auditors to identify abnormalities and mitigate risks.

Sl. NO.	Phases in Audit	Assisted approach to AI systems
1	Planning phase	Analysis of extensive data on the company's structure, accounting, and financial systems.
2	Assessing risk	The risk level and required work hours are estimated following the preceding phase.
3	Identification of risk factors	Finding risk variables by analysing and detecting patterns
4	Control risk assessment	Monitoring of controls continuously.
5	Substantive procures	Extensive examinations on the company's financial situation (balance sheet) must be conducted for the whole population. It is possible to assess several economic years—constant pattern recognition.
6	Evidence Assessment	In order to establish an opinion and compile an audit report, this phase is integrated into the preceding phase.
7.	Audit report	Instead of being divided into categories (clean, modified, or unmodified), the audit report can be continuous.
8	Post audit	In the post-audit review phase, AI helps improve audit quality by learning from previous audits and refining audit techniques.

As per Azubuike, J. I. (2024), predictive analytics enables auditors to evaluate the possibility of financial misstatements or regulatory violations, enabling proactive risk management. The ability of artificial intelligence (AI) systems to forecast patterns from past data improves the auditor's ability to spot potential issues before they become significant ones.

Uses of AI in the Audit Process

The incorporation of AI into the audit process provides many key benefits that have been widely recognised in the literature, such as improved efficiency (Vasarhelyi et al., 2015), enhanced audit quality (Moffitt et al., 2018), and continuous auditing (Warren et al., 2015), and improved fraud detection (Luo et al., 2018)—discussed in more detail in later paragraphs.

3. Methodology of Research

The methodology adopted for this paper is qualitative and descriptive to explore AI's benefits in auditing, identify challenges, and propose solutions. The study involves primary data in interviews with the ten audit parts of big audit firms in Hyderabad and secondary data collection, focusing on understanding the perspectives of audit professionals, regulatory bodies, and AI technology providers in India.

Primary Data: Structured interviews were conducted with ten audit professionals from small, medium, and large audit firms in Hyderabad to gather insights into AI's benefits in audit processes, the extent of its usage, and the challenges they face. These interviews provided qualitative data on the practical implementation of AI in Indian audits.

Secondary Data: The study looked at pertinent sources, such as scholarly works, reports from professional accounting associations like the Institute of Chartered Accountants of India (ICAI), and

auditing regulations about artificial intelligence. This secondary data gave theoretical insight into how AI affects auditing work and its challenges.The primary data from the interviews were analysed using thematic analysis, where common themes related to AI's benefits and challenges in auditing were identified. The secondary data were analysed through a systematic review, synthesising the findings from various studies on AI in auditing and its challenges in the Indian context

FINDINGS AND DISCUSSIONS

Application of AI in the Auditing Process:

AI at the audit's planning stage:

Risk assessment: Large-scale databases, such as previous years' financial statements and external data, can be analysed by AI to find danger areas that need more scrutiny. According to Gamage et al. (2021), patterns, dangers, and anomalies pointing to fraud or misrepresentation can all be identified using machine learning algorithms. Thereby, auditors can concentrate on high-risk areas at the early stage.

Collection of Data: Issa et al. (2016) has indicated that AI streamlines the process of extracting pertinent financial data from a variety of sources, including emails and contracts, as well as other structured and unstructured data

Allocation of Resource: According to Gepp et al. (2018), AI can evaluate the complexity of ongoing engagements and past audit data to assist in allocating resources more effectively.

AI in the execution phase of the audit:

Data Analytics: Massive amounts of organised and unstructured data can be processed by AI-powered data analytics systems to find patterns and trends that might indicate fraud or financial misstatements (Appelbaum et al., 2017). By using AI, auditors may confirm facts throughout the full dataset instead of merely using sampling techniques.Monitoring and continuous audit: Kuenkaikaew and Vasarhelyi, 2019) have noticed that AI will enable the auditor to conduct continuous testing through real-time data monitoring. As and when irregularities are identified, the AI system will detect them and provide immediate information to the auditor about those financial anomalies.

Routine task automation: As per Dai and Vasarhelyi (2017, there are many routine tasks which an auditor performs, such as data entry, account reconciliation, invoice matching, etc.; these activities can be mechanised using AI tools such as robotic process automation.

AI in the reporting phase of the audit:

Anomaly detection: Issa et al. 2016, have found that AI tools help find abnormalities that can provide a source of fraud or a severe problem in preparing financial statements. AI helps to find patterns in large datasets and spot the transactions that deviate from typical patterns.

Automated Report Generation: Brown-Liburd et al. (2015) found that AI provides important ideas and summarises audit findings. NLP systems can help auditors write portions of audit reports. Hence, AI can lessen the manual labour needed to generate reports so auditors can concentrate on strategies.

Decision Support: According to Baldwin et al. (2020), AI solutions help auditors prepare their final opinions on financial accounts by offering data-driven insights and recommendations. Therefore, AI improves the auditor's decision-making while developing their conclusion by analysing patterns and abnormalities found during the fieldwork.

Post-Audit Review:

Post-Audit Analytics: As per Bonsón & Bednárová (2019), AI can analyse the audit process and identify areas where errors might be reduced or efficiency raised. AI helps auditors improve their audit strategy by studying previous audit data. Feedback and Learning: In order to improve audit procedures and better accurately predict future audit risks, machine learning algorithms can be used to learn from past audit engagements. This guarantees that the audit procedure will become more effective over time.

Benefits of using AI in Auditing:

Sl. No.	Benefit	Description of benefit	Cited by
1	Better communication	AI will advance the communication techniques with those charged with governance.	(Albawwat and Frijat, 2021)
2	Minimises the amount of time spent on repetitive and laborious tasks	AI facilitates the analysis and information extraction of semi-structured and unstructured data.	(Deloitte, 2018; EY, 2019; Kokina and Davenport, 2017; Ucoglu, 2020)
3	Cuts down on time spent on repetitive and time-consuming tasks	Automation of repetitive, time-consuming, process-intensive, and regular tasks	(Tiron-Tudor and Deliu, 2021; Zhang, 2019; Kokina and Davenport, 2017)
4	Better improved interface for human interaction	Improved user experience and a fresh, enhanced human interaction interface	(Tiron-Tudor and Deliu, 2021)
5	Eliminate or reduce human errors.	Remove or reduce the errors caused by human beings.	(Christ et al., 2021; Tiron-Tudor and Deliu, 2021; Commerford et al., 2022; Zemankova, 2019; EY, 2019; Ucoglu, 2020)
6	Increases predictive analytics	Improves predictive analytics	(Zhang, 2019)
7	Easy to detect material misstatements	Improves the method for identifying significant misstatements	(Albawwat and Frijat, 2021)
8	Enhanced client services and on-time completion of audit work	Enhanced client service	(Munoko Brown-Liburd, and Vasarhelyi, 2020; EY, 2019; Bhalerao, Kumar, Kumar, and Pujari, 2022)
9	A better knowledge of clients' operations	Produces deeper insight into business procedures and a better grasp of the client's operations and the dangers involved.	(Albawwat and Frijat, 2021; Munoko et al., 2020)
10	Better and higher audit quality	Higher audit quality	(Law and Shen, 2021; Commerford et al., 2022; EY, 2019)
11	Improved documentation for audits	Improved audit documentation	(Christ et al., 2021; Tiron-Tudor and Deliu, 2021)
12	Increased audit effectiveness and efficiency	Increased audit effectiveness and efficiency	(Christ et al., 2021; Zemankova, 2019; Zhang, 2019; Munoko et al., 2020; Hasan, 2022; Puthukulam, Ravikumar, Sharma, and Meesaala, 2021; Ucoglu, 2020)

13	Possible for continuous audit	Introducing audit 4.0, continuous audit, and new service categories	(Tiron-Tudor and Deliu, 2021; Zhang, 2019)
14	Updating the existing models	Because fraud tendencies are constantly changing, models are updated more easily.	(Ucoglu, 2020)
15	Provides digital assistance	Offers digital assistance	(Tiron-Tudor and Deliu, 2021)
16	Better accuracy and precision	Offers precision and accuracy.	(Tiron-Tudor and Deliu, 2021; Munoko et al., 2020; Deloitte, 2018)
17	Extra time to devote to intricate and valuable services	It gives auditors more time to concentrate on more difficult and worthwhile jobs.	(Zemankova, 2019; EY, 2019)
18	Better judgments and decision-making	Rational and accurate decision-maker, better judgments with the assistance of cognitive computing	(Tiron-Tudor & Deliu, 2021; Zhang, 2019; Deloitte, 2018; EY, 2019; Bhaleraoet al., 2022)
19	Reduces audit risk	Reduction of audit risk	(Tiron-Tudor and Deliu, 2021; Zemankova, 2019)
20	100% testing of data possible	Testing all operations in a financial period	(PWC, 2017; Tiron-Tudor and Deliu, 2021; Zhang, 2019; Aksoy and Gurol, 2021; Puthukulam et al., 2021)
21	Use of 24/7	Without breaks, unselfish, exhausted, and available Seven days a week and twenty-four hours a day	(Christ et al., 2021; Tiron-Tudor and Deliu, 2021)

Comparing the challenges of using AI in Auditing from an Indian perspective Visa Vis with Advanced Countries.

There are challenges in using AI in India compared to advanced countries (Reddy, B. 2024), as indicated below:

Sl. NO.	Challenges from the Indian viewpoint of using AI in Auditing	Challenges from Advanced countries' viewpoint of using AI in Auditing
	There are significant potential benefits to using AI in auditing in the Indian context, such as increased accuracy, efficiency, and effectiveness and the promotion of continuous auditing. Even though there are advantages, there are still challenges that Indian auditors may face when using or implementing AI tools in their profession.	AI tools have become popular in advanced countries, particularly in the USA, UK, Germany, etc. It reduces time and cost, enhances efficiency and provides better audit quality. These advanced countries have invested considerable amounts in developing these AI tools for audit purposes, but there are still specific challenges in those countries.
1	Availability of Technology: An essential drawback of AI is the extensive use of large and powerful computers that can handle AI tools such as robotic process automation, natural language processes and machine learning, It requires a vast amount of storage to make real-time processing. These technologies are not simply available. (Li and Goel. 2024)	Advanced countries extensively use technology in business compared to India. Hence, this is not challenging for advanced countries (Ozkaya and Demirhan, 2024); Deloitte. (2018) and EY. (2019).

2	Needs high investment: To implement AI in auditing, India needs to invest more in state-of-the-art technology. It is difficult for medium and small-sized audit firms. (Rikhardsson et al., 2022)	Only the bug 4Cs, such as KPMG, EY, Deloitte, and PwC, can spend more on AI technologies than medium audit firms. The ongoing maintenance cost is also high due to the continuous upskilling of their employees and technology updates. (Rashmi. 2023)
3	The size of audit firms: Many firms in India are smaller than in advanced countries. The business entities are also more SMEs. Sikka, P. (2020). ET CFO.Com (2024). This is a setback to adopting AI for professional activities.	Small audit firms are found in fewer advanced countries than in India. (Rashmi. 2023)
4	The small size of business entities: Indian business entities are more MSMEs with limited datasets using AI tools on a limited data set is also tricky. As per Deloitte India (2020), SMEs should modernise their financial operations before implementing AI. Due to its small size, AI can be more expensive Due to this, Indian auditors are still using manual audits rather than moving to AI-based auditing. Rikhardsson et al (2022)	Business entities are also significant compared to India, where the entity maintains the data on a computer, and a large volume of data is available then so that they can wisely use AI for their audit since many businesses have compromised their business operations. (Rajnish, G. 2024)
5	Skill gap and lack of expertise: There are many skill gaps in this area as there needs to be trained personnel to develop the algorithm to mimic human cognitive processes, and at the same time, there are very limited trained auditors in this area as far as India is concerned. In this regard, KPMG (2021) pointed out that in India, the audit personnel are trained in conventional auditing techniques but with little emphasis on the technical aspects of using AI in auditing. In their study, this has also been highlighted by Gupta and Singh (2021).	Availability of expertise and low skill gap is a feature where advanced countries can use AI in auditing. However, Brynjolfsson and McAfee (2017) stated that auditors find it difficult to understand and verify AI-generated results due to the cloudy nature of AI systems. As the AI tools for auditing are still growing, Gunning et al. (2019) indicated that present AI algorithms are complex to interpret and have low openness; hence, accountability is difficult.
6	Lack of collaboration and cooperation between auditors and AI specialists: Another challenge is the lack of proper integration between Data scientists and auditors, which makes applying AI in the Indian scenario difficult. Hence, there is a need for regular and continuous collaboration and cooperation between auditors and AI tool developers to use AI in auditing in India successfully. (Hasan 2022)	In developed countries, there is a high level of collaboration and cooperation between auditors and AI specialists. Because of this, big audit firms worldwide can use AI in performing their audit function. (Daniel, F. (2023).
7	Lack of regulatory and legislative framework: Another critical challenge for India is the need for more regulatory and legislative frameworks for AI to be used in auditing. No distinct public body is in charge of regulating the application of AI in auditing, and clear guidelines are required as to when the auditor can use AI for auditing. There is a need to amend the existing	Vital regulatory and legislative framework: Regulators recognise AI's importance to audit quality, but more explicit rules are needed. Even in developed countries, audit firms face difficulty due to legislative uncertainty. The US Public Company Accounting Oversight Board must provide clear recommendations for applying AI in

	company law and the relevant auditing standards in the Indian auditing environment. The ICAI has recognised that AI has an opportunity to transform auditing in India completely. The accountability for audit outcomes generated by AI is a significant concern. The potential for "black boxes" in machine learning-based AI systems makes it difficult for auditors to understand the logic behind the decisions made. Deloitte India in 2020 indicated who should be made responsible if AI-driven systems provide biased or inaccurate results.	audits. As a result, several auditing firms can include AI in their auditing process. The Artificial Intelligence Act is a piece of legislation that governs the usage of AI in EU nations. Still, ambiguities exist in advanced countries and legislative and regulatory frameworks. However, big audit firms are using AI in their audit process. (EY. 2024)
8	Lack of Data Security and Privacy: There is a considerable risk if the data is lost. The existing laws are not foolproof in protecting data from piracy and data theft since AI uses voluminous financial and non-financial data. Who should be held responsible if data is lost? The Government of India has introduced the Personal Data Protection Act (2023) (PDPA) to regulate the processing of personal data, but it has not been put into effect. As a result, while utilizing AI tools, businesses are uncertain about how to adhere to data privacy rules.	Strong data security and privacy regulations are in place in the US, UK, and other industrialized nations, in contrast to India. Data protection and privacy can be addressed by the General Data Protection Regulation (GDPR) in the EU and the California Consumer Privacy Act (CCPA) in the US. Accenture (2021) in their study stated that to avoid data security and privacy violations, the law provides heavy fines, and AI technologies used in auditing must adhere to stringent data privacy laws.
9	Cultural resistance: Another drawback of using AI in India is the cultural hurdles. As many auditors are accustomed and trained to use the manual process in auditing, they are not much inclined to move out of the system in which they are instrumental. They have followed this traditional system for decades; hence, moving to the technology brings resistance from them EY (2019).	Since many audit companies utilise computers in their audit process and have already started using artificial intelligence (AI) in their audit process, there are fewer cultural difficulties than in India. (M. Badway, 2023)
10	Fear of job loss: According to several studies on AI in auditing, using AI tools could result in the loss of regular tasks including data entry, validation, and reconciliation (EY, 2019). But Kokina and Davenport (2017) indicated that AI use is more likely to enhance the employees' skills.	Job loss due to the use of technology is imminent. However, there are also opportunities provided by training in technology. (Isaca, N. (2024)
11	Lack of data and low-quality data: The data availability in India could be better, and in most cases, the data may not be available, particularly for SMEs. AI can perform its activities well if the data is vast, accurate, and high-quality. PWC (2021) stated that many Indian companies lack standardisation and well-organised financial data. AI can only be used if the data is cohesive, accurate and consistent.	One of the advantages of modern corporate nations is the availability of high-quality data; as a result, they can employ AI in their auditing process more than in the Indian context. (M. Badawy, 2023)

12	Ethical and accountability challenges: Responsibility, justice, and openness are significant ethical issues. Black-box algorithms, according to Binns et al. (2018), make it challenging for inexperienced auditors to comprehend how AI systems arrive at conclusions that are occasionally incomprehensible to humans. There are some concerns about prejudice in AI algorithms because AI can generate biased output whereby the auditor may come to wrong conclusions and provide wrong opinions to the business entity (Tan and Low (2019).	There are low ethical and accountability challenges in advanced countries since the auditors are well-trained in using AI tools in auditing (Badawy, M. (2023). However, they cannot be ruled out in advanced countries because it depends on how the AI algorithm is developed. A biased AI system has the chance to produce unfair audit conclusions in the auditing process, where the audit firms operate in several countries where diverse cultures, laws, and norms exist. This requires continuous monitoring and testing of AI tools to provide fair and transparent audit conclusions. (Jindal, M. 2024)

SUGGESTIONS AND CONCLUSIONS

As India is progressing very fast in adopting state-of-the-art technology in every walk of life, considering the AI used in advanced countries can provide significant opportunities to India also. The following recommendations can be considered for successful implementation because of the difficulties with utilising AI in auditing in India, which are discussed in the preceding paragraphs.

The government of India needs to establish a technological fund to support small audit firms in implementing AI in their audit process. They need to upgrade their IT systems to enable them to use AI tools. Instead of standalone support, cloud-based AI solutions can be provided. It will help small and medium audit firms to scale up their operations at reduced cost.

Collaboration with technology supporters. A strong partnership must be established between the audit firms and tech supporters to adopt the new technology quickly. These days, cloud providers like Google Cloud, Amazon Web Services, and Microsoft Azure offer AI-driven audit solutions. These platforms allow AI to be tailored for application in the Indian environment. As Deloitte India has already implemented cloud-based AI, other audit firms can use Deloitte's support to reduce their technology and maintenance costs.

Upskilling and training auditors: Given that the current auditors are more accustomed to manual procedures, this is one of India's largest problems, and their academic program is mostly manual audit oriented. Hence, there is a need to provide special training to the existing auditors and modify the curriculum content of those pursuing the Chartered Accounting program. In this regard, the ICAI should initiate actions to train their existing members to become acquainted with AI tools a series of times. In this regard, there needs to be a good partnership with ICAI and technology companies to provide effective training on time in real-time and offline to improve their skill sets. In addition to regular training, their professional auditors must undertake continuous professional development activities to improve their skills based on technological trends. In this context, we need to note how KPMG India has implemented their internal training program to upskill their audit force to build expertise in AI, robotic process automation and data analysis; other audit firms can initiate to provide in-house training or take the help of training providers in this area.

Legal and regulatory framework for AI in Auditing: There is a need for the proactive involvement of ICAI to provide specific instructions on how AI might be integrated into the Indian auditing process and procedures with the adherence to existing accounting standards and ethical principles provided by ICAI. This AI framework should cover the use of AI for audit task automation, fraud detection and audit opinion generation.

Ethical and accountability: There is a worry about AI's black-box aspects, which brings about issues in India. The regulatory authority, ICAI, must make necessary guidelines on how much auditors can rely on AI to make audit decisions and validate AI results. The ICAI can look into the guidelines issued by the

Financial Reporting Council, UK, in 2020 about the framework for integrating AI responsibly and considering modifications to suit Indian conditions. Also, we can look into the guidelines issued by the EU for adopting AI in auditing.

Support for creativity and innovation: AI in the Indian audit profession needs so much creativity and innovation in many small-sized audits and business firms. The Ministry of Company Affairs and Securities Exchange Board of India can consider the establishment of an AI sandbox for the convenience of customised AI tools in the current context.

Government Initiatives and Support: As the country moves towards adopting the latest technologies, the government of India should provide tax incentives and support through subsidies and grants to audit firms interested in establishing AI tools in their audit profession.

Ensure data quality and availability: To work with AI, there is a need for access to extensive data, which is a drawback since there is a variation in Indian financial data quality and accessibility. To ensure this, there must be a digital transformation of financial records and standardisation of financial data. How have the National e-Governance Plan (NeGP) and GSTN helped digitalise India's tax records? Similarly, the business's financial records must be digitalised to use AI tools effectively.

Progressive strategy: As India is growing at a faster rate in the use of technology, there is a need for an incremental, step-by-step approach, starting with automating routine tasks and progressing to risk detection and fraud analysis. In this regard, Indian audit firms can use PwC to successfully integrate AI to automate routine audit tasks and fraud detection, thereby prominently improving audit efficiency and accuracy.

CONCLUSION

In both developed and emerging countries, including India, artificial intelligence (AI) in auditing signifies a paradigm shift. By facilitating real-time data analysis, fraud detection, and predictive analytics, artificial intelligence (AI) technologies are transforming auditing practices in developed nations while improving accuracy and efficiency. However, the disadvantages outweigh these benefits, including high implementation costs, data privacy issues, and the need for specialised expertise.

Even though AI is still in its infancy in India, it has the potential to enhance significantly financial reporting, compliance, and fraud prevention. Some of India's unique challenges are limited awareness, infrastructure difficulties, and regulatory ambiguity. Nonetheless, the use of AI is projected to increase as corporations and regulatory authorities understand its benefits.

To fully utilise the benefits of AI in auditing, a collaborative approach encompassing policymakers, technology providers, and auditors is required. Investments in training, infrastructure, and strong regulatory frameworks will be key to overcoming obstacles and ensuring that AI is used correctly in global auditing procedures.

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