

IMPACT OF AI ON AUDIT AND ASSURANCE SERVICE

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A huge difference is made by Artificial Intelligence in the world of Audit and assurance services. The research AIIMS to investigate how AI can speed up audits and help them discover hazards in a better way as well as the problems related with the implementation of AI in auditing services. Old auditing approaches aren't working the way they used to because the data is getting bigger and bigger and more complicated. New enhanced technology is needed that can make audits more reliable and better. The research includes both primary and secondary data. Primary data was collected by having students and people who know a lot about auditing and AI fill out a structured questionnaire. Secondary data was collected from websites, books and journals. Percentage analysis and graphic tools were used to look at the data to see if AI might make auditing and this assessment more efficient and faster. Most of the people who answered the survey think that AI solutions are straightforward and easy to use and are good at processing huge amounts of data which saves a lot of effort and time. The study shows that there are a number of challenges that includes high cost of implementation concerns about data security, lack of technical knowledge and people's unwillingness to change. If AI is taught the right way, it might have a big impact on the future of Audit and Assurance services.

Keywords: Artificial Intelligence, Auditing, Assurance Services, Risk Assessment, Efficiency, Data Analytics

INTRODUCTION

In the current digital era Artificial Intelligence has become a powerful tool changing many areas such as auditing and accounting. Audit and assurance services play a vital role in creating trust among stakeholders like regulators, investors and the general public. Auditing first used to depend a lot on manual procedures. AI refers to a computer system that can do things that usually need human intelligence such as learning reasoning and data analysis. Artificial Intelligence can be defined as “the capability of a machine to imitate intelligent human behavior. (Carthy, 1956) In auditing AI technology is like Data analytics machine learning and robotic process automation are being used to identify anomalies, enhance risk assessment and automate big datasets. These applications allow auditors to shift their focus on professional judgement and strategic digital making instead of doing manual work which takes a lot of time. Using AI in Audit and assurance services offers a lot of advantages that include fraud detection, compliance check, data entry, greater accuracy, continuous auditing and improved efficiency. Advanced data analytics allow auditors to assess risk, detect anomalies and reduce human errors. It also has few problems like lack of still personnel, data security concerns, ethical issues and high cost of implementation. It becomes important to recognize how AI is impacting the audit profession and how auditors perceive its usefulness and limitations. AI can help auditors but it can't replace human judgement and professional skepticism. The study aims to see the impact of AI on the efficiency and risk assessment function of Audit and assurance services as well as understand the challenges involved in its integration.

REVIEW OF LITERATURE

(Yean, 2024)

PwC used HALO which is the internal audit technology platforms that uses AI driven insights at key points during the audit. HALO lets the auditor look at all the data, find odd patterns and make pictures of places where there is a lot of risk. This gives them more information and helps to do things more easily and quickly. Many studies show that HALO made it easier and faster to work with clients who are hard to reach, cut down on the need for manual sampling and made it possible to do audit at all times. PwC also made it clear that HALO wasn't meant to replace the judgement of the experts but it was meant to make it better. This was to make sure that auditors were still in charge of figuring out what the highlighted data meant, what was important and what wasn't. PwC found out that using AI through platforms like HALO along with strong governance and constant monitoring makes the audit more efficient, builds trust with stakeholders and adds more procedures

(Daher, 2024)

Deloitte explained how to use Argus which is an AI base analytic engine that makes it a lot easier to check journal entries find mistakes and figure out how risky audits are. By using machine learning models that have been trained on past audit data Argus can find trends in financial data sets that you might not expect. By doing this auditor can focus on the most important transactions for a longer period of time.

Deloitte discovered that manual testing took a lot less time and made it easier to find possible fraud or mistakes early. The company said that Argus made the audit more efficient by giving clear data back to reasons for why high-risk locations were chosen during planning. Deloitte said that some of the problems are that there need to be consistency across borders modestly to be adjective at all time and autos need to be train to reach machine outputs correctly Kamli made it clear that auditors are still in charge of their audit opinion even though AI is used. Argus is not supposed to do people work for them it is supposed to have them think better. Deloitte has a belief that AI powered analytics can help keep audit honest and keep the trust of public as long as their properly regulated

(Gu, 2024)

Gu's discussion included co-piloted auditing approach that was based on the idea of finding and ranking risks. The study revealed that big AI models can look at both textual and transactional data at the same time. This enables them to assign risk assessment depending on a lot of different things such as how big or little the transaction is, how often it happens and how strange it is in the environment. After that the figures assist people to decide how to plan the audit. Gu says that these approaches of grading assist businesses for more money into the riskiest regions and less money into the less dangerous ones. Some of the studies concerns were that people might put a lot of reliance in computer results, that model can be explained and that people who give inaccurate risk warnings are to blame. Gu said that higher authorities should ensure that AI based risk evaluations are up to the norms for professional auditing. This makes sure that models are always learning from fresh data and that there are rules in place for what to do when people and AIs disagree. The research indicated that integrating AI enhanced risk assessment with knowledgeable human oversight and can result in audit that are more effective efficient and transparent

(F.Ruff, 2021)

Ruff and Tschan conducted a literature based risk analysis to look at the governance, cyber security and structural challenges associated with the implementation of AI in assurance services. The research revealed many flaws including the potential for altering algorithmic parameters, unauthorised access to important audit files, manipulation of data (data poisoning) and The White spread repercussions that could red across organisations if many commonly used ordered tools were hacked at the same time. They said that AI makes new threat surfaces that conventional audit systems weren't built to address even though it is fast and accurate. The research proposed stringent multi layers security measures constant model monitoring stress testing and fake attack and the creation of independent oversight groups that could check the algorithms themselves. Ruff and Tschan also said that nations should work together to make basic principles for governance saying that different national rules would not be enough for technology that works all over the world. They found that the risk of systematic weaknesses that could make audit less reliable and markets less stable might be bigger than the benefits of

AI enhanced auditing if strict control and cyber security measures are not in place

(Fedyk, 2022)

Fedyk, Jamal, and Waymire looked at how AI changes audit performances in large companies by speaking to the auditors and looking at the records Their studies showed that there were fewer mistakes in audits, faults in internal controls were detected more correctly and audits were done faster. Partners who were surveyed claim that AI solutions made it easier to prioritise audits by automatically pointing out deals that did not make sense. This made teams feel better about working on things that were more dangerous but were also warned that inspectors might get outputs wrong or miss red flags that are only relevant to a certain situation. The study concluded that auditors were still legally and socially reliable for their opinion even if AI helped with the process. Due to this the authors called for strict rules on how to record things and for updated standards to spell out what kind of AI based audit evidence is good to use. They thought about it and decided that AI can improve professional skills by making things faster and better, but it can't replace the careful thought, moral duty and professional scepticism that are needed for auditing.

OBJECTIVES OF THE STUDY

- To evaluate the possibilities and problems that currently arise from integrating AI.
- To explore how AI can improve risk assessment and audit efficiency.
- To investigate stakeholders' perspectives on the deployment of AI.

SCOPE OF THE STUDY

The study's major focus is to see how AI can be used in audit and assurance services mainly in business and professional settings. It talks about ways to make artificial intelligence like machine learning, robotic process automation and natural language processing. It looks at how they can change, how we judge risk, the level of audit and how they operate. It also considers the views of stakeholders and the issues that come up when AI is used. The study doesn't say anything about how technical AI algorithms are being made or about anything other than business and financial auditing.

Study Methods

In order to investigate the effects of artificial intelligence (AI) on auditing and assurance services, this study uses a quantitative research design. A sample of one hundred corporate professionals who are involved actively in auditing or assurance-related activities provides structured data for the study. The study aims to give a comprehensive and fair picture of the operational effects of AI as well as the opinions of important stakeholders by combining quantitative analysis with qualitative insights from open-ended responses.

Survey Design

A Google Form survey with both closed-ended and open-ended questions is the main instrument used to collect data. Predetermined answer alternatives are provided by the closed-ended questions, making it simple to quantify and perform statistical analysis on the gathered data. Respondents can provide in-depth thoughts, experiences, and recommendations for the open-ended questions, which gives the numerical results more nuance and meaning.

Sample

A hundred corporate professionals are chosen using a purposive sampling technique. To guarantee a range of viewpoints, they are selected from various industries, organizational sizes, and job duties. Participants must directly participate in or have substantial exposure to auditing or assurance procedures within their individual organizations so that they meet the admission criteria. The study's conclusions are more dependable and applicable to a vast range of industries due to this diversity.

Data Collection

Mostly through professional communication platforms and email, the survey is disseminated online. Along with promises that their answers would be kept private and would be used only for academic purposes, participants are given instructions on how to complete the survey. To guarantee prompt responses and consistency across all submissions, a set period of time is set aside for data collection.

DATA ANALYSIS

The survey responses are methodically gathered and statistically examined when the collection of data is done. The quantitative data is summarized and presented using descriptive statistics like frequency distributions, averages, and percentages. The open-ended responses are subjected to thematic analysis in order to find recurrent themes, ideas, and issues raised by the participants. Combining these techniques allows the study to offer a numerical summary as well as interpretive insights into the perception and application of AI in auditing and assurance services.

INTERPRETATION OF RESULTS

The goals and theories of the study are considered while interpreting the data analysis. To put the results in context and draw attention to any similarities, differences, or new trends, the findings are compared with previously published works and industry reports. The current state of AI in auditing, its advantages, difficulties, and the readiness of professionals and businesses to adopt this technological change may all be meaningfully discussed thanks to this comparative method.

HYPOTHESES OF THE STUDY

Set 1: Challenges of Integrating Artificial Intelligence in Auditing

- **Null Hypothesis (H₀):** Integration of Artificial Intelligence doesn't pose any challenge.
- **Alternative Hypothesis (H₁):** Integration of Artificial Intelligence pose challenges.

Set 2; General Impact on Audit Efficiency and Risk Assessment

- **Null Hypothesis (H₀):** There is no significant impact of Artificial Intelligence on the efficiency and risk assessment capabilities in audit and assurance services.
- **Alternative Hypothesis (H₁):** Artificial Intelligence has a significant positive impact on the efficiency and risk assessment capabilities in audit and assurance services

Set 3; Stakeholder Perception and Integration Challenges

- Null Hypothesis (H₀): Stakeholders do not significantly support the deployment of AI in audit services, and that AI integration does not significantly pose new challenges.
- Alternative Hypothesis (H₁): Stakeholders show significant support for the deployment of AI in audit services, and that AI integration brings significant new challenges.

DATA INTERPRETATION AND ANALYSIS

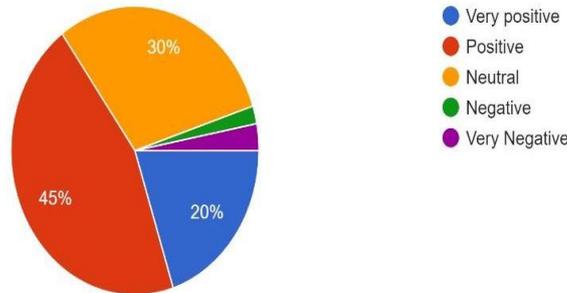


Chart 1- Impact of AI in the field of Auditing and Assurance services

The pie chart shows that 20% of the respondents had a very positive perception, meaning they think that AI will significantly and favorably affect the field. 45% of the respondent had a positive opinion of AI's impact on assurance and auditing services. 30% chose neutral, suggesting that they had no opinion about how AI would affect assurance in auditing services. 3% of the respondents had a negative perspective, meaning they thought AI may negatively impact assurance and auditing services. 2% of the respondents chose very negative.

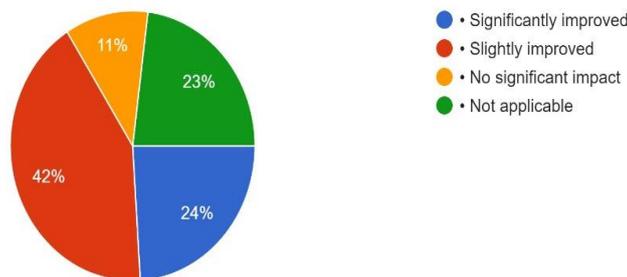


Chart 2- Impact of AI on auditing procedures in company

According to 24% of the respondents AI integration has significantly improved the effectiveness of their auditing procedure employing that a considerable proportion of participants have encountered advantages from the implementation of AI. According to 42% of the respondents integrated AI has slightly improved the effectiveness of their auditing procedures. 11% of the responded shows the option of no significant impact suggesting that even with the incorporation of AI into auditing procedures a small percentage of respondents have not seen appreciable increases in efficiency. A quarter of the participants chose not applicable as they are not actively involved in auditing operations or because their organisation has not used AI technology in auditing.

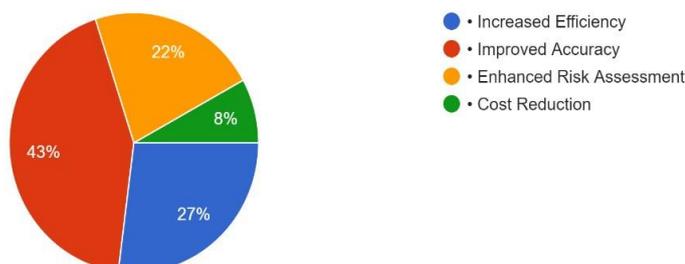


Chart 3- Advantage of integrating AI into auditing processes

According to 43% of the respondents improved accuracy is a major advantage. This shows that they believe AI technology can do audits more thoroughly, decreasing the possibility of mistakes and improving dependability of audit. 27% of the respondents think that increase efficiency is the major benefit implying that AI can help auditing procedures go more smoothly. Enhanced assessment was cited as a major benefit by 22% of the respondents suggesting that they view AI as useful for more accurately detecting and evaluating hazards. Cost reduction was mentioned by 8% as the primary benefit.

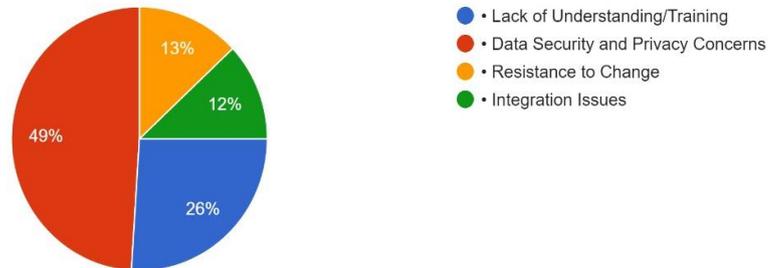


Chart 4- Challenges arising from integration of AI in auditing procedures

Lack of understanding or training was listed by 49% of the respondents as a major difficulty. Data security and privacy concerns were identified by 36% of the respondents as a challenge. Resistance to change was mentioned as a challenge by 13% of the respondents. Integration issues were mentioned by 12% of the respondents as a challenge. Effectively addressing these issues is essential.

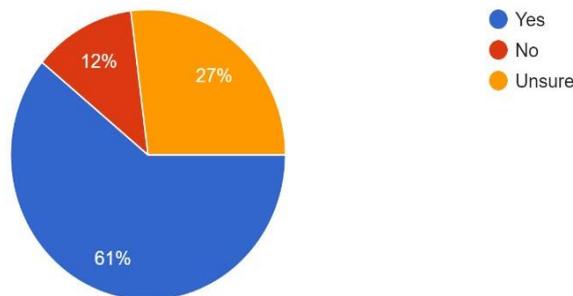


Chart 5- Opinion regarding the use of AI in audit and assurance services

61% of the people who answered selected yes meaning that they believe AI is going to be used more often in auditing and assurance services in the near future. 12% of the respondents said no meaning that a small number of them feel that AI might not affect the auditing industry. 27% of the respondents selected unsure indicating their uncertainty, suggesting that there is some uncertainty or disagreement among the respondents about the direction artificial intelligence will go in auditing.

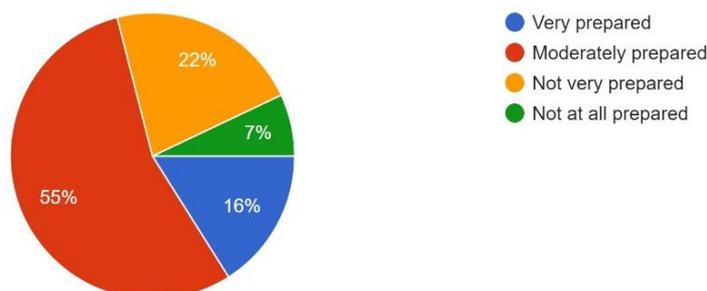


Chart 6- Preparedness of the organization to adapt future advancement in AI relevant to Audit and Assurance Services

16% of the respondents said that they felt very prepared showing that they think their companies are very prepared to handle any future development in AI affecting auditing in assurance services.

55% of the people surveyed felt moderately prepared indicating that they think their company is at least somewhat ready to adjust a new development in ai that will affect Audit and assurance services. 22% felt that the company is not very prepared for any future advancement. 7% of the respondents said that they felt the company is not at all prepared.

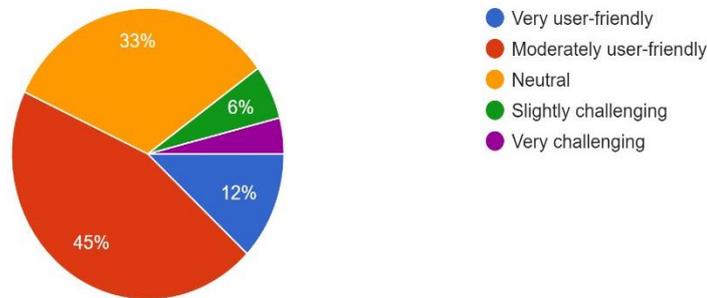


Chart 7- User friendliness of AI tools implemented in auditing processes

According to 12% of the respondents AI tools used in auditing procedures are very user friendly indicating that they believe technology to be very accessible and user friendly. According to 45% of the respondents AI tools used in auditing procedures are moderately user-friendly suggesting that they think AI technologies have a reasonable level of usability and functionality and are fairly user friendly. 33% of the respondents had a neutral opinion. 6% of the respondents thought that AI tools used in auditing procedures were slightly challenging. According to 4% of respondents using AI tools and procedures are very challenging.

Testing of Hypothesis

Hypothesis 1: Challenges of Integrating AI in Auditing

- Lack of understanding/ training- 49%
- Data security & privacy -36%
- Resistance to change- 13%
- Integration issues-12%

The alternative hypothesis is accepted and the null hypothesis is rejected, indicating that the integration of Artificial Intelligence in auditing poses significant challenges.

Hypothesis 2: Impact on Audit Efficiency and Risk Assessment

- Very positive + Positive impact- 65%
- Improved procedures- 66%
- Enhanced risk assessment-22%

The alternative hypothesis is accepted and the null hypothesis is rejected, indicating that AI has a significant positive impact on audit efficiency and risk assessment.

Hypothesis 3: Stakeholder Perception and Integration Challenges

- AI will be used more in future- 61% Yes
- Readiness to adopt- Majority moderately/ very prepared
- Challenges acknowledged strongly

The alternative hypothesis is accepted and the null hypothesis is rejected, showing strong stakeholder support for AI adoption along with significant integration challenges.

FINDINGS

1. 67% of respondents were very familiar with the idea of using AI in auditing and assurance services. This means that the people that were asked probably knew a lot about AI technologies.
2. 65% of the respondents thought that AI may change how assurance and auditing services work.

3. More than half of the people who answered (53%) said they knew about or had utilized AI tools and technologies for auditing or comparable tasks, which means that a lot of people had utilized AI for auditing in some way.
4. 53% of the respondents said they had made some kind of investment, to get auditors ready to use AI technology. People now know how significant it is to teach auditors how to use AI in their work.
5. 57% of the respondents said that AI technologies utilized in auditing were really easy to use. This suggests that many auditors found AI tools were easy to use and helpful for their work.
6. 71% of the respondents said that they were either very or somewhat ready to deal with advances in AI that will be significant for auditing and assurance services in the future. This suggests that majority of them are open to using new technologies and ways of doing things in the subject of auditing.

The findings show that most of the people are okay with the idea of using AI in auditing and assurance services. They are getting ready and learning about how technology could help them, and they believe it can get better. There might be methods to improve things, such making AI technologies easier to use and fixing any difficulties or queries that haven't been answered yet during the adoption process.

CONCLUSION

The study shows that AI is rapidly transforming Audit and assurance services by making them more accurate efficient and better at risk assessing. AI driven tools enable auditors to automate routine tasks, analyse large volumes of data in real time and identify a normal is at my go and noticed otherwise. This not only reduces the amount of manual effort but also allows auditors to focus on professional judgement strategic analysis and value-added services. The findings indicate that AI enhances order effectiveness and supports the alternative hypothesis of the study. AI integration is not without challenges. There are issues such as data quality concern, lack of skill professional high implementation cost and ethical consideration. These problems show how vital it is to have strong governance frameworks, continuous training of audit professionals and transparency in the AI system. AI should be seen as a tool that helps people rather than replacement for auditors. Combination of human expertise and smart systems can lead to a more insightful and reliable audit outcome. With the changing technology audit firms and professionals need to be proactive in adapting, investing skill development and establishing ethical guidelines to fully harness the advantages of AI. Future collaboration between AI and auditors will be vital in strengthening trust, accountability and quality in audit assurance services.

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