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Enhancing Financial Accuracy and Reliability: A Study on AI-Driven Accounting Automation

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Abstract

The integration of Artificial Intelligence (AI) into accounting practices has emerged as a transformative force in enhancing financial accuracy, operational efficiency, and decision-making processes. This study investigates the impact of AI-driven accounting automation on the accuracy and reliability of financial reporting within contemporary business environments. For the study, primary data were collected from accountants, accounts managers, finance analysts, and academic researchers. To assess whether perceptions significantly differed from a neutral stance, a one-sample t-test was applied, using a test value of 4, which represented the midpoint of the 7-point Likert scale. The research examines how accounting applications utilizing AI-driven automation tools streamline routine tasks, including data entry, transaction categorization, reconciliation, and compliance monitoring. The results provide strong evidence that accounting professionals and academicians perceive AI tools as significantly accurate and reliable in the context of accounting. The widespread agreement across various aspects of AI performance indicates a high level of trust and acceptance of these technologies. Such perceptions are essential for the continued integration of AI in professional practice, as positive user attitudes often drive adoption and effective utilization.

Keywords: Accounting Automation; Artificial Intelligence; Financial Accuracy; Business Forecasting; Strategic Decision-Making; Digital Era.

1 Introduction

In the rapidly evolving landscape of business and finance, accuracy and efficiency in accounting practices are of paramount importance. The study examines the perceptions of accounting professionals and academicians towards trust, reliability, and accuracy in the context of embracing AI-driven automation in accounting. As artificial intelligence (AI) continues to reshape industries worldwide, accounting stands out as one of the fields experiencing a profound transformation (Das, 2025). Cloud-based accounting applications like QuickBooks, Zoho Books, and TallyPrime have become popular in the Indian accounting sector due to their user-friendly interfaces and capability to streamline multi-branch operations. According to (Holmes & Douglass, 2022), "AI technology is used for forensic investigations and anomaly detection, and expect that AI will begin to play a role in reducing manual tasks in audit and tax engagements". From data entry and auditing to fraud detection and financial forecasting, AI-driven automation is increasingly becoming central to accounting practices.

This shift promises a range of benefits, including improved efficiency, cost reductions, and enhanced decision-making accuracy. Automated systems can process large volumes of data rapidly, minimize human error, and streamline complex accounting tasks that once required extensive manual input. However, with these advances come significant ethical and accuracy-related considerations, especially as organisations rely more heavily on automated processes for tasks critical to financial integrity. According to (Almaqtari, 2024), AI automates tasks, diminishes human error, and extracts valuable insights, leading to higher quality and better services.

AI's role in accounting extends beyond automation; it influences decision-making and risk assessment, reshaping how professionals approach traditional accounting principles. Automation frees time for analyzing complex financial data, interpreting AI insights, and advising stakeholders. Accountants now collaborate with AI, refining algorithms and ensuring ethical use, transforming into decision-makers who enhance business strategy through technology-driven insights. These automations free up managers to focus on value-added services while providing a competitive advantage (Värzaru, 2022; Adeyelu et al, 2024). The accounting industry, in transition, must embrace advanced technologies to meet market demands (Mohammad, 2020). Yet, concerns have arisen about the extent to which AI-driven systems can be trusted to uphold ethical standards and maintain accurate records. Algorithms, for example, may inherit biases from the data they are trained on or make decisions in ways that lack transparency to end-users. Additionally, questions surrounding data privacy, accountability, and professional oversight bring into focus the risks associated with over-reliance on AI. These concerns are especially pressing in a field where accuracy, transparency, and ethical integrity are paramount, as errors or biases in financial records can lead to substantial economic consequences and damage stakeholder trust. According to (Schweitzer, 2024), A proactive, ethical approach is vital to maintaining trust and integrity while leveraging AI's benefits. The profession must balance innovation with responsibility to ensure ethical financial practices.

AI has the potential to alleviate tedious obligations rather than replace occupations, freeing up accountants to focus on higher-value services like business analytics, forensic accounting, financial advice, and ESG reporting. The process of combining AI and ethics in accounting is only getting started. Technology's impact on ethical judgment in accounting has significant implications for the profession and society. In spite of technical advancements, accounting professionals must uphold ethical standards. Gunz & Thorne, (2020) argue that technology can weaken ethical decision-making by reducing social interaction and accountability (Gunz & Thorne, 2020). Adoption of AI comes with challenges, including technical complications, regulatory compliance, cybersecurity risks, workforce or employee adaptation, and ethical concerns. A proactive approach that strikes a balance between risk management and innovation is necessary to overcome these obstacles (Adeyeri, 2024; Aiswarya & Sangeetha, 2023)

The primary motive of this research is to explore how accounting professionals and academicians perceive the growing integration of AI-driven automation in accounting, particularly concerning trust, reliability, and accuracy. As AI technologies become increasingly embedded in financial processes, understanding user perceptions is essential to ensure successful adoption and implementation. This study aims to uncover the level of confidence stakeholders have in AI tools and identify any concerns that may hinder their broader acceptance. By doing so, the research seeks to bridge the gap between technological advancement and user readiness, ultimately supporting more effective and trustworthy accounting practices in the digital era.

2 Foundation

This review examines the role of AI in transforming accounting practices by facilitating secure, transparent, and consensus-driven record-keeping to boost accuracy and trustworthiness.

2.1 Theoretical Framework

The present study is grounded in the Technology Acceptance Model (TAM) developed by (Davis, 1989). TAM is extensively used to explain how druggies accept and adopt new technologies based on their perceptions regarding utility and ease of use (Davis, 1989). According to the model, individuals are more likely to adopt technological systems when they trust that such technologies improve their performance and can be applied effectively with minimal complexity (Muchran & Ahmar, 2019; Ma et al., 2017; Wallace & Sheetz, 2014).

In the context of accounting automation, AI-driven systems are increasingly being used to improve financial accuracy, productivity, operational efficiency, and decision-making quality (Okafor et al., 2023). Thus, accounting professionals are more likely to adopt and trust AI technologies when they perceive these systems as reliable, accurate, and beneficial to accounting functions.

The present study applies TAM to examine whether positive perceptions regarding AI accuracy, reliability, productivity improvement, and operational cost reduction influence the acceptance of AI-driven accounting automation. The model provides an applicable theoretical foundation for understanding how professionals evaluate and respond to arising AI technologies in accounting practices.

2.2 Definition of Artificial Intelligence

Artificial Intelligence (AI) refers to the replication of human intelligence in technologies that are programmed to think, learn, and solve problems. These systems can execute tasks that typically require human cognition, such as understanding natural language, identifying patterns, decisions making, and adapting based on experience (Zhai, 2021; Makridakis, 2017; Liu, 2020; Vaishya et al., 2020; Hassani et al., 2020; Haleem et al., 2019; Mannuru et al., 2023; Dwivedi et al., 2021). AI achieves this through numerous techniques, including machine learning (ML), deep learning, and natural language processing (Khalid et al., 2024). According to (Adeyelu et al., 2024), AI has the potential to renovate accounting practices through automation, boosted decision-making, and better efficiency. In an article, (Antwi et al., 2024) concluded that the automation of data entry and reconciliation, facilitated by AI, denotes a transformative shift in accounting practices, as AI-driven systems, especially those embracing machine learning, exhibit the capacity to manage extensive financial datasets swiftly and precisely. In today's hastily growing and intensely competitive market, the strategic deployment of AI is not merely advantageous but fundamentally indispensable for sustained competitiveness, providing businesses with advanced analytical capabilities and data-driven understandings that significantly augment the precision and efficacy of strategic and operational decision-making processes (Schmitt, 2023).

2.3 Impact of AI on Financial Reporting

AI technologies significantly influence the accuracy and reliability of financial data and reporting in organizations by automating routine tasks and diminishing human error (Alonge et al., 2024). Similarly, according to (Bin-Nashwan et al., 2024), AI algorithms demonstrate superior capability in processing massive quantities of financial data with outstanding speed, which facilitates the identification of anomalies, discrepancies, and potential risks that might be ignored by human auditors due to cognitive limitations or time constraints. In this context, (Adeyelu et al., 2024; Leocádio et al., 2024) highlighted that AI-driven algorithms not only improve decision-making through insightful analytics and cost reduction but also bolster strategic financial supervision by providing real-time monitoring and proactive risk analysis. Likewise, (Artene et al., 2024) argued that the integration of AI-based decision-making with the digital revolution into financial reporting systems demands meticulous attention to technological, organizational, and ethical considerations. (Mwachikoka, 2024) alluded to the significant potential of AI technologies to enhance financial reporting accuracy across segments like auditing, manufacturing, and tourism. They further indicate that challenges such as skill gaps, data quality issues, legacy system integration, and regulatory concerns hamper successful implementation. It emphasized the need for human oversight, employee training, and strong data governance to fully leverage AI's benefits. In an article, Cao (2022) described that recent developments in next-generation AI have accelerated its application across various financial domains. The integration of Artificial Intelligence into accounting practices represents a significant paradigm shift, with the potential to revolutionize traditional methods and enhance overall accuracy and efficiency (Peng et al., 2023; Mihai & Duțescu, 2024). In this context, (Adeyelu et al., 2024) remarked on AI systems' capabilities in processing vast quantities of financial data with speed and precision. While (Sari & Indrabudiman, 2024) emphasized that the increasing complexity and volume of financial transactions necessitate the adoption of AI-driven solutions to maintain accuracy and compliance. Furthermore, AI technologies play a crucial role in detecting anomalies and fraudulent activities within financial systems, thereby bolstering security and mitigating potential risks (Adhikari et al., 2024; Chu & Yong, 2021).

2.4 Challenges and Limitations of AI

Despite its potential, integrating AI into financial reporting systems presents challenges and boundaries that organizations must address. A major concern is the risk of bias in AI algorithms, which can reinforce errors if the data used for training contains preexisting prejudices (Bajpai, 2024). Transparency and explainability are vital; the "black box" nature of some AI models can make it difficult to understand how decisions are made, hindering trust and accountability (Wang, 2024). Organizations face complications such as guaranteeing data quality and security, managing algorithm bias, and addressing ethical considerations to maintain the reliability and integrity of financial data (Ostmann & Dorobantu, 2021). In a research article, Bartáková et al., (2025) observed that limited financial and digital literacy, weak bank cooperation, trust issues, and regulatory gaps leave consumers vulnerable. The research offers practical recommendations for policymakers and practitioners to expand financial inclusion, emphasizing the need for sustainable strategies that address these critical challenges and enhance customer protection. According to Bi et al., (2024), AI models like ChatGPT and others offer valuable insights for financial prediction by analyzing diverse data sources. However, challenges such as overfitting and integration issues limit effectiveness. The article emphasizes using AI automation as a supportive tool, not a standalone solution, to enhance risk forecasting without increasing investment vulnerability. (Yi et al., 2023) underlines three key challenges faced during AI integration in finance, including data security, interpretability, and data dependency. They further argue that privacy concerns persist despite technological developments. Complex AI models lack transparency, making decisions hard to interpret. The author alludes that AI's dependence on large datasets means issues like bias and imbalance can significantly influence model performance and reliability. Similarly, (Acharya & Bhojak, 2024) argued that challenges, including cybersecurity risks, regulatory uncertainty, ethical concerns, and integration complexities, continue to affect adoption.

2.5 Human Oversight and AI

Human oversight is crucial in ensuring the accuracy and reliability of AI-generated financial reports (Mwachikoka, 2024). It is essential due to its capacity to interpret and contextualize complex financial scenarios, especially those requiring subtle insights beyond what AI algorithms can analyze (Schmitt, 2023). In an article, (Petković, 2023) argued that the strategic integration of human expertise is not only crucial for keeping meticulous control over AI-driven procedures and establishing resilient feedback loops but also for cultivating a more profound and nuanced understanding of the complex mechanisms that underpin machine learning models and their resultant predictive outputs. To ensure fairness and prevent discriminatory results, (Ridzuan et al., 2024) suggested the biases in prior data must be addressed. (Antwi et al., 2024) highlighted the potential shift of professional's modus operandi, AI empowers accounting professionals to focus on more strategic and analytical endeavours, leading to improved decision-making and resource allocation. (Fedyk et al., 2022) had drawn attention to the use of AI in the audit sector, AI-driven tools augment the auditor's capabilities to efficiently manage and meticulously analyze expansive datasets, thereby expediting the identification of potential discrepancies and inherent risks, while concurrently elevating the overall accuracy and reliability of audit outcomes.

Existing studies consistently report that AI improves accounting efficiency and fraud detection; however, researchers differ regarding the reliability and ethical transparency of AI-generated financial reports. While Adeyelu et al. (2024) emphasized operational efficiency, Wang (2024) highlighted concerns regarding algorithmic transparency and accountability. Similarly, Mwachikoka (2024) identified improved reporting accuracy but noted that human oversight remains essential to ensure ethical compliance and contextual judgment.

2.6 Research Gap

Existing studies on Artificial Intelligence in accounting primarily focus on technical capabilities such as automation, fraud detection, and operational efficiency. However, limited research has examined how accounting professionals and academicians perceive the accuracy, reliability, and trustworthiness of AI-driven accounting systems, particularly in developing economies like India. Furthermore, previous studies have paid less attention to the relationship between AI adoption and organizational outcomes such as productivity enhancement, revenue growth, and operational cost reduction. Therefore, the present study attempts to bridge this gap by empirically examining user perceptions regarding the accuracy, reliability, and strategic value of AI-driven accounting automation.

3 Objectives of the research

Considering the above review of literature and research gap, the following objectives of the research have been formulated.

- i. To examine the perceptions of accountants, accounting professionals, and academicians regarding the accuracy and reliability of AI-driven accounting tools.
- ii. To evaluate whether AI tools in accounting are perceived to significantly enhance financial accuracy and decision-making.

4 Research Methodology

This research employed a quantitative research approach to examine perceptions of accuracy and reliability in AI-driven accounting automation. Primary data were collected through a structured questionnaire distributed to 140 respondents, comprising accountants, accounting professionals, and academicians from various organizations and academic institutions, using a purposive sampling technique. The participants were selected based on their familiarity with or experience in using AI tools in accounting practices.

The questionnaire included multiple statements measured on a 7-point Likert scale, ranging from "strongly disagree" to "strongly agree," focusing on the perceived accuracy, reliability, and effectiveness of AI applications in accounting processes. The collected responses were coded and entered into SPSS for statistical analysis.

The data analysis was conducted using appropriate statistical tools to interpret the mean scores and t-values, with significance levels set at conventional thresholds (e.g., $p < 0.05$). This methodology enables a robust evaluation of the general sentiment toward AI in accounting and provides empirical evidence on its perceived effectiveness. The approach ensures reliability and objectivity in measuring professional and academic perspectives on AI-driven automation in financial functions.

5 Automation and AI's Role in Accounting

Automation and artificial intelligence (AI) are transforming accounting and auditing by improving efficiency, accuracy, and decision-making skills. By automating tedious procedures, enhancing data analysis, detecting fraud, and ensuring regulatory compliance, these AI technologies are completely changing conventional financial practices.

5.1 Automating Routine Accounting Activities

Routine and repetitive procedures like data input, invoice processing, payroll management, and financial reconciliation are made easier by AI-driven automation tools. Software bots can carry out rule-based operations with minimal assistance from humans, applying robotic process automation (RPA), which diminishes errors and boosts operational effectiveness.

5.2 Enhanced Financial Reporting and Analysis

Large volumes of financial data can be accurately and swiftly analyzed by AI-driven automation systems, which can be used to generate insights for decision-making. Businesses may make data-driven decisions and improve their financial strategies by using AI-powered algorithms to find patterns and irregularities in financial records.

5.3 Risk management and fraud detection

By investigating transaction patterns and detecting doubtful activity, artificial intelligence improves fraud detection. Advanced analytics and predictive modeling help organisations to recognize irregularities, reducing the risk of financial fraud. By keeping an eye on adherence to legal and financial requirements, AI-driven risk assessment solutions help enhance internal controls.

5.4 AI-Powered Auditing

By automating risk assessment, document inspection, and data sampling, AI enhances the auditing process. Compared to conventional methods, machine learning algorithms scrutinize audit trails and spot discrepancies more quickly. Natural language processing (NLP) assists auditors in extracting insights from unstructured data, such as contracts and financial statements.

5.5 Decision Support and Predictive Analytics

Predictive analytics from AI helps companies anticipate sales, costs, and market changes. By analyzing historical financial performance and forecasting future results, AI-powered decision support systems help accountants and financial managers make strategic decisions.

5.6 Accuracy and Compliance with Regulations

AI continuously monitors complex transactions and generates compliance reports to assist firms in adhering to intricate financial requirements. Automated compliance technologies reduce the possibility of legal repercussions by ensuring compliance with audit requirements, accounting standards, and tax regulations.

By improving accuracy, efficiency, and decision-making, the embracing of AI-driven automation in accounting and auditing is transforming the landscape. Despite the many benefits of these technologies, issues including data security, moral dilemmas, and labor adaptation need to be resolved. As AI continues to progress, its role in financial management will increase, empowering accountants and auditors to concentrate on higher-value responsibilities and strategic financial planning.

6 Survey Analysis

To measure the accuracy and reliability of AI tools in accounting, a survey was conducted among accounting professionals using a 7-point Likert scale in which 1 denotes strongly disagree, 4 denotes neutral, and 7 denotes strongly agree. The aim was to understand their perceptions of how accurately and efficiently AI supports their functions. The survey included seven key statements to capture this sentiment. These statements are:

- i. AI accounting tools provide accurate results. (AR1)
- ii. AI tools are more reliable than manual accounting processes. (AR2)
- iii. AI-based accounting systems can handle complex financial transactions effectively. (AR3)
- iv. I trust AI-generated financial reports as much as human-prepared ones. (AR4)
- v. Do you agree that AI adoption boosts revenue growth? (AR5)
- vi. Do you agree that AI adoption boosts productivity? (AR6)
- vii. Do you agree that AI adoption reduces operational costs? (AR7)

Respondents assessed whether AI-driven accounting tools deliver accurate results and whether these tools are more reliable compared to traditional, manual accounting methods. The capacity of AI to manage complex financial transactions was also examined, providing insight into its technical capability and adaptability in real-world accounting environments. Professionals were asked to mark their trust in AI-generated financial reports in comparison to those prepared by humans,

revealing the perceived reliability of AI outputs. Additionally, the survey explored the broader influences of AI embracing, including its impact on revenue growth, productivity, and operational cost reduction. These dimensions offer a comprehensive opinion of the value professionals associate with AI in accounting. The findings from these responses help identify not only the trust level in AI's functional capabilities but also its perceived strategic benefits for organizational efficiency and financial performance, shaping the future incorporation of AI tools in the accounting sector.

6.1 Descriptive Analysis

The descriptive statistics reveal a generally positive perception of AI's accuracy and reliability in accounting, with all mean scores above 5 on a 7-point Likert scale. Descriptive statistics in table 1 show the highest-rated statements, AR6 (mean = 6.02) and AR7 (mean = 6.12), indicate strong agreement, supported by high negative skewness and peaked distributions (positive kurtosis). This suggests that responses are clustered toward "agree" and "strongly agree." All items exhibit negative skewness, reflecting a consistent tendency toward agreement across the sample. Standard deviations range from 1.32 to 1.58, indicating moderate variability. AR4 (mean = 5.41) shows the lowest agreement and greatest variability, suggesting mixed perceptions. Overall, the results indicate that respondents view AI as accurate and reliable in accounting tasks, though certain areas, like AR4 and AR5, may benefit from further investigation to understand the sources of hesitation or variability in responses. The data underscores strong confidence in AI's role in accounting accuracy and reliability.

	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
AR1	140	5.79	1.338	-.673	.205	-.183	.407
AR2	140	5.66	1.438	-.688	.205	-.049	.407
AR3	140	5.99	1.368	-1.104	.205	.588	.407
AR4	140	5.41	1.578	-.643	.205	-.177	.407
AR5	140	5.49	1.406	-.191	.205	-1.215	.407
AR6	140	6.02	1.412	-1.409	.205	1.860	.407
AR7	140	6.12	1.322	-1.288	.205	.981	.407

Table 1: Descriptives Statistics

6.2 Reliability of Scale

Cronbach's Alpha reliability tool is applied to check the reliability of the measurement scale. Table 2 shows the Cronbach's Alpha value of the 7 variables is 0.772 which is more than the threshold value of 0.7 that confirms that the questionnaire used in the research is reliable.

Reliability Statistics	
Cronbach's Alpha	N of Items
.772	7

Table 2: Reliability Statistics

6.3 Hypothesis

To understand the perception of respondents regarding the accuracy and reliability of AI tools in accounting, a specific hypothesis has been formulated. Measuring user trust in AI technologies, especially as these tools become increasingly integrated into financial operations. The hypothesis framed for this purpose is as follows:

H01: There is no significant difference between the perceived and expected levels (Neutral) of accuracy and reliability of AI tools in accounting.

(The mean perception score is equal to the neutral value.)

- i. **H0:** $\mu = \mu_0$ (where μ_0 = neutral value, e.g., 4)
- ii. **H1:** $\mu \neq \mu_0$

A one-sample t-test is applied to test the above hypothesis. This statistical method helps determine whether the sample mean significantly differs from a known or hypothesized population mean (Hassan et al., 2025; Emetaram & Uchime, 2021; Boyer-Davis, 2019). By applying the one-sample t-test, the study aims to assess if respondents' perceptions align with the expected standards of AI performance in accounting tasks. This analysis will provide valuable insights into user confidence in AI tools and their potential future role in the accounting profession.

6.4 One-Sample Statistics

The one-sample statistics table 3 presents responses from 140 participants on seven statements (AR1–AR7) assessing the accuracy and reliability of AI tools in accounting. All mean scores are above 5 on a likely 7-point Likert scale, indicating a generally positive perception. The highest mean is AR7(6.12), showing strong agreement, while AR4 has the lowest (5.41), though still above neutral (4). Standard deviations range from 1.322 to 1.578, suggesting moderate variability in responses, with AR4 showing the highest spread, indicating more diverse opinions. The standard errors of the mean (ranging from 0.112 to 0.133) are relatively low, reflecting a high level of precision in the sample estimates. These results are part of a one-sample t-test against a neutral test value (e.g., 4); the observed means are likely significantly higher, suggesting strong agreement that AI tools are accurate and reliable in accounting. Overall, the data suggests a statistically reliable and favorable perception of AI's performance in accounting functions. However, the slightly lower score and higher variability in the fourth statement (AR4) may point to specific concerns or differences in interpretation that merit further exploration. The sample size increases trust in the generalizability of the findings.

	N	Mean	Std. Deviation	Std. Error Mean
AR1	140	5.79	1.338	.113
AR2	140	5.66	1.438	.122
AR3	140	5.99	1.368	.116
AR4	140	5.41	1.578	.133
AR5	140	5.49	1.406	.119
AR6	140	6.02	1.412	.119
AR7	140	6.12	1.322	.112

Table 3: One-Sample Statistics

6.4 Result of One-Sample t-test

This one-sample t-test (table 4) assesses whether the mean scores for statements from AR1 to AR7 differ significantly from a neutral reference point of 4. All statements yield statistically significant results ($p < .001$), with t-values ranging from 10.607 to 18.987. The positive mean differences (from 1.414 to 2.121) indicate that all statement means are significantly higher than the neutral value (4), confirming that accountants view AI tools as both accurate and reliable in accounting functions.

Seventh statement (AR7) shows the strongest agreement (mean difference = 2.121, $t = 18.987$), followed closely by AR6 and AR3. These items likely represent the most confidently endorsed aspects of AI's capabilities. On the other hand, AR4 has the lowest t-value and mean difference, indicating slightly more variability or weaker agreement, though still significantly positive. All 95% confidence intervals exclude zero and lie well above 1.0, reinforcing the strength and precision of the results. Overall, the analysis confirms a consistently favorable perception of AI tools, with high statistical reliability. These findings support the adoption and trust in AI technologies within the accounting field.

Table 1. One-Sample t-Test Results (Test Value = 4)

Item	t	df	Sig. (2-tailed)	Mean Difference	95% CI of the Difference	
					Lower	Upper
AR1	15.850	139	< 0.000	1.793	1.57	2.02
AR2	13.633	139	< 0.000	1.657	1.42	1.90
AR3	17.180	139	< 0.000	1.986	1.76	2.21
AR4	10.607	139	< 0.000	1.414	1.15	1.68
AR5	12.499	139	< 0.000	1.486	1.25	1.72
AR6	16.945	139	< 0.000	2.021	1.79	2.26
AR7	18.987	139	< 0.000	2.121	1.90	2.34

Table 4: Result of One Sample t test

6.5 Discussion

The findings of the study reveal a robust positive perception among accounting experts and academicians regarding the accuracy and reliability of AI-driven accounting automation. All variables recorded mean scores significantly above the neutral value, indicating extensive acceptance of AI technologies within the accounting sector. The results suggest that respondents perceive AI tools as effective in improving financial accuracy, operational efficiency, productivity, and decision-making quality.

The strongest agreement was observed in relation to productivity enhancement and operational cost reduction, indicating

that professionals increasingly recognize the strategic advantages of accounting automation. This finding may reflect the growing digital transformation occurring within modern organizations, where cloud-based accounting systems, automated reconciliation processes, and AI-assisted analytics are becoming more common. Respondents familiar with AI-enabled technologies are more likely to perceive these systems as reliable and beneficial for improving accounting performance.

The relatively lower agreement regarding trust in AI-generated financial reports suggests that some professionals still maintain concerns regarding transparency, ethical accountability, and the need for human oversight in financial reporting processes. This finding aligns with earlier studies emphasizing that although AI enhances efficiency, professional judgment and ethical supervision remain essential in accounting practices.

The findings support the Technology Acceptance Model (TAM), which suggests that users are more likely to adopt technologies they perceive as useful and reliable. Respondents in the present study demonstrated strong confidence in AI-driven accounting automation due to their perceived ability to improve productivity, accuracy, and operational efficiency. Aligning with (Askary et al., 2018; Alquqa et al., 2024), Accounting professionals and academics perceive AI tools as significantly accurate and reliable in the context of accounting and finance.

Overall, the findings indicate that AI is increasingly viewed not just as a technological revolution but as a reliable strategic tool capable of transforming accounting *modus operandi* and supporting organizational decision-making in the digital age.

6.6 Practical and Policy Implications

The findings of the study provide several important practical and policy implications for organizations, accounting professionals, educational institutions, and regulatory bodies. Since respondents demonstrated strong confidence in the accuracy and reliability of AI-driven accounting systems, organizations should increase investment in AI-enabled financial technologies to improve operational efficiency, real-time reporting, and strategic decision-making.

Professional accounting bodies and educational institutions should incorporate AI literacy, data analytics, and ethical AI governance into accounting curricula and professional development programs. Continuous training initiatives are necessary to help accountants adapt to changing technological environments and develop skills required for AI-assisted financial analysis and auditing.

From a policy perspective, regulatory authorities should establish standardized guidelines regarding the ethical use of AI in accounting and financial reporting. Organizations should also develop internal monitoring mechanisms to ensure transparency, accountability, cybersecurity protection, and human oversight in AI-assisted decision-making processes.

In summary, the successful integration of AI in accounting requires a balanced approach that combines technological innovation with ethical governance, professional competency, and regulatory compliance.

6.7 Limitations of the Study

Despite providing valuable insights into perceptions of AI-driven accounting automation, the study has certain limitations. First, the research employed purposive sampling, which may limit the generalizability of the findings to broader populations. Second, the study was based on a relatively limited sample size consisting primarily of accountants, finance professionals, and academicians familiar with AI technologies.

Third, the study relied on self-reported perception-based responses, which may be influenced by respondent bias or individual experiences with technology adoption. Additionally, the study adopted a cross-sectional research design and therefore does not capture changes in perceptions over time.

Finally, the statistical analysis primarily focused on descriptive statistics and one-sample t-tests. Future research may apply advanced statistical techniques such as regression analysis, structural equation modelling, or longitudinal analysis to provide deeper insights into AI adoption behavior in accounting practices.

7 Conclusion

This study aimed to assess the perceived accuracy and reliability of AI tools in accounting. The findings reveal a consistently positive perception among participants, suggesting strong confidence in the capabilities of AI within the accounting profession. Respondents generally agreed that AI tools enhance the accuracy of financial tasks, support reliable decision-making, and contribute meaningfully to the overall efficiency of accounting processes.

The widespread agreement across various aspects of AI performance indicates a high level of trust and acceptance of these technologies. Such perceptions are essential for the continued integration of AI in professional practice, as positive user attitudes often drive adoption and effective utilization. While some areas showed slightly more variation in opinion, the overall sentiment remained clearly favorable.

These results have important implications for both practitioners and organizations. For professionals, the findings highlight the need to stay updated with evolving AI tools and their applications. For organizations, they emphasize the value of investing in AI solutions and training programs that align with user expectations and needs. In conclusion, the study supports the view that AI is not only a promising innovation but is also becoming a trusted and integral part of modern accounting practice.

The study also highlights the importance of balancing technological advancement with ethical governance, transparency, and professional oversight. As AI adoption continues to expand within accounting and finance, organizations, educators, and policymakers must collaborate to ensure the responsible, effective, and sustainable implementation of AI-driven accounting systems.

References

- Acharya, U., & Bhojak, N. (2024). The Transformative Effects of Artificial Intelligence, Machine Learning, and Blockchain on the Fintech Sector: A Systematic Review. *Ramanujan International Journal of Business and Research*, 9(2), 49–60. <https://doi.org/10.51245/rijbr.v9i2.2024.1795>
- Adeyelu, O. O., Ugochukwu, C. E., & Shonibare, M. A. (2024). The impact of artificial intelligence on accounting practices: advancements, challenges, and opportunities. *International Journal of Management & Entrepreneurship Research*, 6(4), 1200–1210. <https://doi.org/10.51594/ijmer.v6i4.1031>
- Adeyeri, T. B. (2024). Economic impacts of AI-Driven automation in financial services. *Valley International Journal Digital Library*, 12(7), 6779–6791. <https://doi.org/https://doi.org/10.18535/ijserm/v12i07.em07>
- Adhikari, P., Hamal, P., & Baidoo, F. (2024). Artificial Intelligence in fraud detection: Revolutionizing financial security. *International Journal of Science and Research Archive*, 13(1), 1457. <https://doi.org/10.30574/ijsera.2024.13.1.1860>
- Almaqtari, F. A. (2024). The Role of IT Governance in the Integration of AI in Accounting and Auditing Operations. *Economies*, 12(8), 199. <https://doi.org/10.3390/economies12080199>
- Aiswarya, S., & Sangeetha, S. (2023). Augmenting Innovation: Artificial Intelligence among Women Entrepreneurs. *Ramanujan International Journal of Business and Research*, 8(2), 40–49. <https://doi.org/10.51245/rijbr.v8i2.2023.1366>
- Alonge, E. O., Dudu, O. F., & Alao, O. B. (2024). The impact of digital transformation on financial reporting and accountability in emerging markets. *International Journal of Science and Technology Research Archive*, 7(2), 25. <https://doi.org/10.53771/ijstra.2024.7.2.0061>
- Alquqa, E. K., Alshurideh, M. T., Alalami, J. H., Sharma, R., Joseph, R., & Alzoubi, H. M. (2024, February). The Role of AI in Enhancing Financial Forecasting Accuracy: Transforming Modern Accounting Practices. In *2024 2nd International Conference on Cyber Resilience (ICCR)*, 1–6. IEEE. <https://doi.org/10.1109/ICCR61006.2024.10533117>
- Antwi, B. O., Adelakun, B. O., & Eziefule, A. O. (2024). Transforming Financial Reporting with AI: Enhancing Accuracy and Timeliness. *International Journal of Advanced Economics*, 6(6), 205. <https://doi.org/10.51594/ijae.v6i6.1229>
- Artene, A. E., Domil, A. E., & Iva?cu, L. (2024). Unlocking Business Value: Integrating AI-Driven Decision-Making in Financial Reporting Systems. *Electronics*, 13(15), 3069. <https://doi.org/10.3390/electronics13153069>
- Askary, S., Abu-Ghazaleh, N., & Tahat, Y. A. (2018). Artificial intelligence and reliability of accounting information. In *Challenges and Opportunities in the Digital Era: 17th IFIP WG 6.11 Conference on e-Business, e-Services, and e-Society, I3E 2018, Kuwait City, Kuwait, 17, 315–324*. Springer International Publishing. <https://inria.hal.science/hal-02274162v1>
- Bajpai, A. (2024). Evaluating the Impact of Artificial Intelligence on Enhancing Tax Compliance and Financial Regulation. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4922459>
- Bartáková, G. P., Almadhor, A., Qayyum, A., Abeer, K., & Durrani, A. (2025). Evaluating the capacity and limitations of generative AI in financial decision making. *Computer Standards & Interfaces*, 93, 103965. <https://doi.org/10.1016/j.csi.2024.103965>
- Bi, S., Xiao, J., & Deng, T. (2024). The Role of AI in Financial Forecasting: ChatGPT's Potential and Challenges. In *Proceedings of the 4th Asia-Pacific Artificial Intelligence and Big Data Forum*, 1064–1070. <https://doi.org/10.1145/3718491.3718663>
- Bin-Nashwan, S. A., Li, J. Z., Jiang, H., Bajary, A. R., & Ma'aji, M. M. (2024). Does AI adoption redefine financial reporting accuracy, auditing efficiency, and information asymmetry? An integrated model of TOE-TAM-RDT and big data governance. *Computers in Human Behavior Reports*, 100572. <https://doi.org/10.1016/j.chbr.2024.100572>
- Boyer-Davis, S. (2019). Technostress in accounting professionals: A quantitative examination of the differences between managers and non-managers. *Journal of Accounting and Finance*, 19(2), 25–41. Retrieved from http://www.na-businesspress.com/JAF/JAF19-2/Boyer-Davis_Web_19_2.pdf
- Cao, L. (2022). AI in finance: challenges, techniques, and opportunities. *ACM Computing Surveys (CSUR)*, 55(3), 1–38. <https://doi.org/10.1145/3502289>
- Chu, M. K., & Yong, K. O. (2021). Big Data Analytics for Business Intelligence in Accounting and Audit. *Open Journal of Social Sciences*, 9(9), 42. <https://doi.org/10.4236/jss.2021.99004>
- Das, P. K. (2025). Accounting Transformation in the Ongoing Era-Challenges and Opportunities. *British Journal of Multidisciplinary and Advanced Studies*, 6(1), 27–43. <https://doi.org/10.37745/bjmas.2022.04215>
- Davis, F. D. (1989). Technology acceptance model: TAM. *Al-Suqri, MN, Al-Auft, AS: Information seeking behavior and technology adoption*, 205(219), 5.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 13(3), 319–340.
- Khalid, U. bint, Naeem, M., Stasolla, F., Syed, M., Abbas, M., & Coronato, A. (2024). Impact of AI-Powered Solutions in Rehabilitation Process: Recent Improvements and Future Trends [Review of Impact of AI-Powered Solutions in Rehabilitation Process: Recent Improvements and Future Trends]. *International Journal of General Medicine*, 943. Dove Medical Press. <https://doi.org/10.2147/ijgm.s453903>

- Dwivedi, Y. K., Hughes, L., Ismagilova, E., Aarts, G., Coombs, C., Crick, T., ... & Williams, M. D. (2021). Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. *International journal of information management*, 57, 101994. <https://doi.org/10.1016/j.ijinfomgt.2019.08.002>
- Emetaram, E., & Uchime, H. N. (2021). Impact of artificial intelligence (AI) on accountancy profession. *Journal of Accounting and Financial Management*, 7(2), 15–25.
- Farea, M., Alifan, B., Al-Dubai, M., Ahmad, A., Mohamed, R. and Hatamleh, A. (2024). Intelligent Automation in Accounting and Financial Reporting. *Journal of Tianjin University Science and Technology*. 57(??), 463–480. <https://doi.org/10.5281/zenodo.12516114>
- Fedyk, A., Hodson, J., Khimich, N. V., & Fedyk, T. (2022). Is artificial intelligence improving the audit process? *Review of Accounting Studies*, 27(3), 938. <https://doi.org/10.1007/s11142-022-09697-x>
- Gunz, S., & Thorne, L. (2020). Thematic symposium: The impact of technology on ethics, professionalism and judgement in accounting. *Journal of Business Ethics*, 167, 153–155. <https://doi.org/10.1007/s10551-019-04404-4>
- Haleem, A., Javaid, M., & Khan, I. H. (2019). Current status and applications of Artificial Intelligence (AI) in medical field: An overview. *Current Medicine Research and Practice*, 9(6), 231–237. <https://doi.org/10.1016/j.cmrp.2019.11.005>
- Hasan, L., Hossain, M. Z., Johora, F. T., & Hasan, M. H. (2024). Cybersecurity in Accounting: Protecting Financial Data in the Digital Age. *European Journal of Applied Science, Engineering and Technology*, 2(6), 64–80. <https://doi.org/10.59324/ejaset.2024.2.06>
- Hassan, S. W. U., Kiran, S., Gul, S., Khatatbeh, I. N., & Zainab, B. (2025). The perception of accountants/auditors on the role of corporate governance and information technology in fraud detection and prevention. *Journal of Financial Reporting and Accounting*, 23(1), 5–29. <https://doi.org/10.1108/JFRA-05-2023-0235>
- Hassani, H., Silva, E. S., Unger, S., TajMazinani, M., & Mac Feely, S. (2020). Artificial intelligence (AI) or intelligence augmentation (IA): what is the future? *Ai*, 1(2), 8. <https://doi.org/10.3390/ai1020008>
- Holmes, A. F., & Douglass, A. (2022). Artificial intelligence: Reshaping the accounting profession and the disruption to accounting education. *Journal of Emerging Technologies in Accounting*, 19(1), 53–68. <https://doi.org/10.2308/JETA-2020-054>
- Leocádio, D., Malheiro, L., & Reis, J. (2024). Artificial Intelligence in Auditing: A Conceptual Framework for Auditing Practices. *Administrative Sciences*, 14(10), 238. <https://doi.org/10.3390/admsci14100238>
- Liu, S. Y. (2020). Artificial intelligence (AI) in agriculture. *IT professional*, 22(3), 14–15. <https://doi.org/10.1109/MITP.2020.2986121>
- Ma, Y. J., Gam, H. J., & Banning, J. (2017). Perceived ease of use and usefulness of sustainability labels on apparel products: application of the technology acceptance model. *Fashion and Textiles*, 4(1), 3. DOI10.1186/s40691-017-0093-1
- Makridakis, S. (2017). The forthcoming Artificial Intelligence (AI) revolution: Its impact on society and firms. *Futures*, 90, 46–60. <https://doi.org/10.1016/j.futures.2017.03.006>
- Mannuru, N. R., Shahriar, S., Teel, Z. A., Wang, T., Lund, B. D., Tijani, S., ... & Vaidya, P. (2023). Artificial intelligence in developing countries: The impact of generative artificial intelligence (AI) technologies for development. *Information Development*, 02666669231200628. <https://doi.org/10.1177/02666669231200628>
- Mihai, M. S., & Duțescu, A. (2024). TOE framework elements used on Artificial Intelligence implementation in the accounting and audit sector. *International Journal of Research in Business and Social Science* (2147–4478), 13(4), 335. <https://doi.org/10.20525/ijrbs.v13i4.3374>
- Mohammad, S. J., Khamees Hamad, A., Borgi, H., Anh Thu, P., Safdar Sial, M., & Abdallah Alhadidi, A. (2020). How artificial intelligence changes the future of accounting industry, *International Journal of Economics and Business Administration*, 8(3), 478–488. Retrieved from https://www.um.edu.my/library/oar/bitstream/123456789/63809/1/How_artificial_intelligence_changes_the_future_of_accounting_industry_2020.pdf
- Muchran, M., & Ahmar, A. S. (2019). Application of TAM model to the use of information technology. *arXiv preprint arXiv:1901.11358*.
- Mwachikoka, C. F. (2024). Effects of artificial intelligence on financial reporting accuracy. *World Journal of Advanced Research and Reviews*, 23(3), 1751–1767. <https://doi.org/10.30574/wjarr.2024.23.3.2791>
- Okafor, C. M., Wedraogo, L., Essandoh, S., Sakyi, J. K., Ibrahim, A. K., & Ogunwale, O. (2023). AI-driven decision-making and its impact on business performance. *Journal of Frontiers in Multidisciplinary Research*, 4(2), 286–299.
- Ostmann, F., & Dorobantu, C. (2021). AI in Financial Services. <https://doi.org/10.5281/zenodo.4916041>
- Peng, Y., Ahmad, S. F., Ahmad, A. Y. A. B., Shaikh, M. S. A., Daoud, M. K., & Alhamdi, F. M. H. (2023). Riding the Waves of Artificial Intelligence in Advancing Accounting and Its Implications for Sustainable Development Goals. *Sustainability*, 15(19), 14165. <https://doi.org/10.3390/su151914165>
- Petković, D. (2023). It is Not “Accuracy vs. Explainability”—We Need Both for Trustworthy AI Systems. *IEEE Transactions on Technology and Society*, 4(1), 46. <https://doi.org/10.1109/tts.2023.3239921>
- Ridzuan, N. N., Masri, M., Anshari, M., Fitriyani, N. L., & Syafrudin, M. (2024). AI in the Financial Sector: The Line between Innovation, Regulation and Ethical Responsibility. *Information*, 15(8), 432. <https://doi.org/10.3390/info15080432>
- Sari, Y., & Indrabudiman, A. (2024). The Role of Artificial Intelligence (AI) in Financial Risk Management. *Formosa Journal of Sustainable Research*, 3(9), 2073. <https://doi.org/10.55927/fjsr.v3i9.11436>
- Schmitt, M. (2023). Automated machine learning: AI-driven decision making in business analytics. *Intelligent Systems with Applications*, 18, 200188. <https://doi.org/10.1016/j.iswa.2023.200188>

- Schweitzer, B. (2024). Artificial intelligence (AI) ethics in accounting. *Journal of Accounting, Ethics & Public Policy, JAEPP*, 25(1), 67–67. <https://doi.org/10.60154/jaepp.2024.v25n1p67>
- Vaishya, R., Javaid, M., Khan, I. H., & Haleem, A. (2020). Artificial Intelligence (AI) applications for COVID-19 pandemic. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*, 14(4), 337–339. <https://doi.org/10.1016/j.dsx.2020.04.012>
- Vărzaru, A. A. (2022). Assessing artificial intelligence technology acceptance in managerial accounting. *Electronics*, 11(14), 2256. <https://doi.org/10.3390/electronics11142256>
- Wallace, L. G., & Sheetz, S. D. (2014). The adoption of software measures: A technology acceptance model (TAM) perspective. *Information & management*, 51(2), 249–259. <https://doi.org/10.1016/j.im.2013.12.003>
- Wang, Y. (2024). Ethical considerations of AI in financial decision. *Computing and Artificial Intelligence.*, 2(1), 1290. <https://doi.org/10.59400/cai.v2i1.1290>
- Yi, Z., Cao, X., Chen, Z., & Li, S. (2023). Artificial intelligence in accounting and finance: Challenges and opportunities. *IEEE Access*, 11, 129100–129123. <https://doi.org/10.1109/ACCESS.2023.3333389>
- Zhai, X., Chu, X., Chai, C. S., Jong, M. S. Y., Istenic, A., Spector, M., ... & Li, Y. (2021). A Review of Artificial Intelligence (AI) in Education from 2010 to 2020. *Complexity*, 2021(1), 8812542. <https://doi.org/10.1155/2021/8812542>