



ARTIFICIAL INTELLIGENCE AND THE EVOLUTION OF ACCOUNTING: TRANSFORMING ROLES, SKILLS, AND PROFESSIONAL PRACTICES

Danish Karim

Lahore School of Accountancy and Finance, University of Lahore, Pakistan

Khalil Ahmad

Government Islamia Graduate College, Civil Lines, Lahore, Pakistan

Amjad Ali

Lahore School of Accountancy and Finance, University of Lahore, Pakistan

Abstract

This research investigates how artificial intelligence is transforming accounting tasks and examines how practitioners adapt in professional environments that now demand strategic thinking, analytical skills, and digital proficiency. The findings indicate that artificial intelligence technologies, particularly robotic process automation and machine learning, are automating repetitive, process-based tasks in accounting, such as data entry, bank reconciliations, and tax calculations. In contrast, accounting professionals are increasingly responsible for higher-value activities, including data analysis, strategic advising, and planning that require advanced digital competencies, communication skills, and ethical judgment. Primary data were collected from a sample of 20 skilled accountants, equally divided between early-career and experienced professionals. The results reveal that the most substantial adoption of artificial intelligence occurs in corporate finance, while audit and public practice sectors have been slower to adopt due to regulatory barriers and resource constraints. The study also highlights a significant skills gap, particularly among senior staff and those in smaller firms, pointing to the urgent need for targeted reskilling initiatives and curricular revisions in accounting education. Concerns about algorithmic bias, data privacy, and transparency remain key barriers to artificial intelligence adoption, underscoring the necessity for comprehensive governance frameworks. Overall, the study concludes that artificial intelligence is redefining accounting roles rather than replacing them, emphasizing the importance of continuous workforce training, industry leadership, and support from educational institutions to meet evolving professional requirements. The research offers practical recommendations for policymakers, educators, and accountancy firms seeking to implement fair and sustainable artificial intelligence integration strategies that optimize the complementary strengths of human expertise and machine capability for improved business outcomes.

Keywords: Artificial Intelligence, Accounting Profession, Workforce Skills, Digital Transformation

1. Introduction

The integration of artificial intelligence into accounting represents a significant technological transformation, fundamentally altering the profession's landscape. Accounting has evolved from a traditionally procedural, low-technology field focused on financial reporting, internal controls, and bookkeeping into a more strategic and analytical discipline driven by advanced technologies (Brynjolfsson & McAfee, 2017). The adoption of systems leveraging robotic process automation and predictive analytics (Earley, 2015) has become central to daily operations, streamlining repetitive tasks, reducing human error, and enhancing efficiency. Recent research highlights how AI enables real-time processing and analysis of vast datasets, facilitating rapid financial insights and more robust risk assessment (Richins et al., 2017; Karhan, 2019; Shaukat et al., 2025). Just as corporate social responsibility moved from the margins to the core of business strategy, artificial intelligence has shifted from a support tool to a critical pillar in accounting practice (Issa et al., 2016; Farras et al., 2025). This change demands a new set of competencies for accountants, who are now expected to serve as data experts, ethical guides, and strategic advisors rather than solely as financial recordkeepers (ACCA, 2020).

In today's artificial intelligence-augmented workplace, accountants must be skilled in using AI tools, data analytics platforms, and coding languages such as Python, R, or SQL, while also possessing essential soft skills like effective communication, analytical thinking, and ethical judgment (Earley, 2015; ACCA, 2020). This multidisciplinary expertise allows professionals to interpret AI-generated



analyses within the broader organizational context and to ensure responsible, ethical deployment of automation in line with regulatory standards and stakeholder expectations (Richins et al., 2017; Issa et al., 2016; Geda, 2023; Audi et al., 2025; Khalid et al., 2025). As AI continues to advance, it will likely further reshape the boundaries and functions of accounting, requiring continuous learning and adaptation among practitioners. Ongoing collaboration between academia, professional bodies, and industry is essential to develop relevant training and certification programs that equip accountants for success in this dynamic digital environment.

According to Davis's (1989) Technology Acceptance Model, accountants' perceptions of usefulness and ease of use are the primary determinants of technology adoption. Despite artificial intelligence's potential, significant challenges persist. Many senior professionals face skills gaps, and small firms with limited resources encounter barriers to implementation, contributing to disparities across the sector (World Economic Forum, 2020). Concerns regarding data bias and privacy further emphasize the necessity for human oversight and responsible management of technology in professional settings. Consequently, the successful transformation of accounting requires not only technological advancement but also cultural and educational adaptation.

Attitudes towards artificial intelligence strongly influence both the pace and extent of its adoption in the profession. When accountants perceive artificial intelligence as beneficial for audit quality and effectiveness, acceptance increases. However, apprehensions about job security, lack of digital literacy, and insufficient organizational support can hinder adoption (Richins et al., 2017). Thus, while artificial intelligence offers significant promise, it is accompanied by persistent obstacles, including workforce aging, budget constraints, and ethical concerns, all of which necessitate continued human involvement and oversight. Thus, this research explores how artificial intelligence has transformed accounting tasks and examines how practitioners in Pakistan are adapting to a professional environment that increasingly demands strategic thinking, analytical skills, and digital aptitude.

2. Literature Review

Over the past decade, the adoption of artificial intelligence by accountancy departments has surged, fundamentally changing how accounting tasks are structured and executed. Artificial intelligence was initially introduced to handle simple, process-oriented tasks such as data entry and financial record-keeping. Today, its role has expanded to include shaping business strategy, risk management, auditing, and financial forecasting. This transition parallels the integration of corporate social responsibility from a secondary function to a central component of business strategy. Artificial intelligence now demands a higher level of technical proficiency from accounting professionals and has redefined the skill sets expected in the field. Accountants are no longer simply record-keepers but are expected to analyze complex data, interpret algorithmic outputs, and participate actively in strategic organizational planning. This shift requires a blend of technical expertise, proficiency in artificial intelligence tools, statistical analysis, programming languages like Python, and soft skills such as communication, ethics, and analytical thinking. As Brynjolfsson and McAfee (2017) and Sutton et al. (2016) note, artificial intelligence is not only changing accounting tools but also increasing the pressure for continual skills development. The rapid integration of artificial intelligence highlights the urgent need for ongoing curriculum updates in accounting education and training to prepare students for the modern, artificial intelligence-enabled profession.

With the automation of routine tasks by artificial intelligence, the value in accounting has shifted to roles requiring strategic thinking and interpretation. Accountants' responsibilities now emphasize judgment, critical analysis, and planning, while artificial intelligence handles data entry, reconciliation, and basic compliance checks. Employers increasingly seek finance professionals who



combine robust accounting knowledge with experience in technologies like artificial intelligence-driven analytics, machine learning, and robotic process automation (Earley, 2015; ACCA, 2020). Skills in statistical modeling, programming (particularly Python), and familiarity with platforms such as IBM Watson and Microsoft Azure are highly valued. Accountants are also expected to interpret artificial intelligence-generated insights for stakeholders. As such, continuous professional development is essential to maintain relevance. Organizations benefit from employees skilled in digital technologies through improved decision-making and agility, enhancing competitive advantage. Human Capital Theory explains that accountants who embrace digital transformation and develop technology-oriented skills are positioned as key contributors within organizations (Izzo et al., 2022).

Davis' (1989) Technology Acceptance Model identifies perceived usefulness and perceived ease of use as crucial to technology adoption. Accounting professionals' acceptance of artificial intelligence is shaped by beliefs in its ability to enhance audit quality, fraud detection, and error reduction. Studies such as Kokina and Davenport (2017) show that positive attitudes toward artificial intelligence can transform its reputation from a disruptive tool to an enabling solution. However, organizational factors, including technological infrastructure, leadership support, and training, alongside professionals' adaptability and familiarity with analytics tools, significantly influence adoption (Richins et al., 2017). Successful adoption of artificial intelligence in accounting requires not just new software purchases but also investment in resources, mindset shifts, and development of appropriate competencies.

The Task-Technology Fit (TTF) theory (Goodhue and Thompson, 1995) further highlights that the success of artificial intelligence depends on its alignment with the tasks at hand. In accounting, artificial intelligence is particularly effective at automating routine activities such as journal entries, bank reconciliations, tax calculations, and compliance checks (ICAEW, 2019). However, tasks that require judgment, ethical reasoning, and strategic planning remain distinctly human (Brynjolfsson and McAfee, 2017; Gartner, 2020). The role of the accountant is thus evolving, not being replaced by automation but shifting towards guiding clients, analyzing artificial intelligence-generated results, and influencing business strategy (Anomah et al., 2024). This evolution demands a workforce skilled in both technology and higher-order cognitive abilities, such as emotional intelligence and logical reasoning.

The digital transformation in accounting has exposed a clear skills gap, particularly among practitioners trained before the widespread adoption of artificial intelligence. Deficiencies in data interpretation, coding, statistical analysis, and the use of artificial intelligence tools are common. The World Economic Forum (2020) emphasizes that future roles will increasingly depend on analytical reasoning, technological competence, and lifelong learning. Traditional accounting education, with its focus on compliance and reporting, must adapt to these new requirements. Recognizing this, professional bodies such as the ACCA and IFAC are advocating for curriculum reforms to include data analytics, cybersecurity, cloud computing, and the ethical implications of artificial intelligence (ACCA, 2020; IFAC, 2021). While technical skills are critical, soft skills like communication and adaptability, as well as ethical reasoning, are also essential for success in a digital environment. Continuing professional development is necessary, and universities are revising accounting programs to prioritize artificial intelligence and data analytics training. Closing the skills gap is vital to ensure the ongoing relevance and effectiveness of accounting in an artificial intelligence-driven world.

Artificial intelligence's potential to revolutionize accounting comes with important ethical considerations, including algorithmic bias, data privacy, and the need for transparency and accountability. Artificial intelligence systems can inadvertently perpetuate bias, and their reliability depends on robust data and transparent algorithms. Accountants must act as ethical stewards,



validating artificial intelligence outputs and ensuring the ethical use of these systems (Richins et al., 2017). Ethics training should address data governance, stakeholder consent, and artificial intelligence system transparency. Companies are implementing ethical protocols to govern artificial intelligence use and ensure the interpretability of automated decisions. Ethical application of artificial intelligence is essential to maintaining trust and accountability in accounting, and accountants are expected to serve as both technology users and ethical overseers.

There are substantial differences in artificial intelligence integration across the accounting sector, varying by firm size, region, and area of focus. Large international firms lead in adopting artificial intelligence, supported by strong IT infrastructure and investment in research (Chui and Francisco, 2017). Small and medium-sized enterprises, however, face budget constraints, limited technological expertise, and uncertainty about returns, which hinders adoption and deepens industry disparities. Regional factors also influence adoption rates, with well-resourced economies progressing faster than developing regions. To address these challenges, organizations like the World Economic Forum (2020) recommend inclusive initiatives to promote equitable access to digital technologies. Public-private partnerships, state-backed artificial intelligence programs, and affordable training resources can support broader adoption. Professional bodies are also encouraged to provide low-cost training to close the skills gap for small and medium-sized enterprises. Ultimately, artificial intelligence-driven transformation will only be effective if it is inclusive, deliberate, and supported by collective action from all stakeholders in the accounting ecosystem.

Despite the growing body of literature highlighting AI's disruptive potential in automating accounting tasks and reshaping professional skill requirements globally (Brynjolfsson & McAfee, 2017; Sutton et al., 2016; ACCA, 2020), critical empirical gaps remain, especially regarding skill transitions and workforce adaptation within developing economies such as Pakistan. While international research documents the shift from routine processing to strategic, analytical, and advisory roles (Earley, 2015; Richins et al., 2017; Izzo et al., 2022; Arshi et al., 2025; Haider et al., 2025), there is insufficient context-specific evidence on how Pakistani accountants are navigating this transformation, what skill gaps persist, and how local organizational, educational, and regulatory environments influence AI integration and upskilling. Most existing studies either focus on technologically advanced regions or large multinational firms, leaving a gap in understanding the challenges faced by small- and medium-sized enterprises (SMEs) and individual practitioners in Pakistan—particularly concerning access to training, resource limitations, and cultural barriers to technology adoption (Chui & Francisco, 2017; Idrees et al., 2025; Kodithuwak & Pacillo, 2025). Moreover, few studies address the persistent mismatch between the digital skill sets offered by traditional accounting education in Pakistan and the actual competencies required for effective AI adoption. Likewise, the ethical and governance challenges of algorithmic bias, data privacy, and transparency in the Pakistani context remain underexplored. Thus, there is a pressing need for empirical research that systematically investigates the evolving skill requirements, adaptation strategies, and institutional constraints unique to the accounting sector in Pakistan as it transitions towards AI-driven practices, with an emphasis on both opportunities and barriers for workforce transformation.

3. Research Methodology

This study investigates the impact of artificial intelligence integration on accounting job roles and the evolving skill requirements across diverse organizational contexts. The research sample comprises accounting professionals from public practice accounting firms, corporate finance departments, and auditing services firms in Pakistan. To ensure inclusiveness, the study focuses on employees who have utilized artificial intelligence applications such as robotic process automation, artificial intelligence-driven auditing systems, and advanced data analytics tools. Purposive sampling was employed, targeting current accounting staff with documented exposure to or experience with



artificial intelligence technologies. The sample includes 20 participants, with equal representation from early-career and experienced accountants, as detailed in Table 1. This methodological approach enables the evaluation of skill development across generations and provides insights into how adaptation challenges differ between varying experience levels.

Table 1: Segment-wise Distribution of Participants

Segment	Early-Career (0–5 yrs)	Senior Professionals (6+ yrs)	Total
Public Practice	3	3	6
Corporate Finance	4	4	8
Audit and Compliance	3	3	6
Total	10	10	20

Respondents were required to demonstrate either practical or theoretical use of artificial intelligence utilities in their day-to-day work to qualify for participation. All participants also had to verify their experience by having completed at least one artificial intelligence training course or by participating in technology-driven projects at their organizations. The primary source of data collection was original fieldwork, supplemented by carefully selected secondary sources for contextualization.

Digital surveys were used to collect quantitative data, including Likert-scale and open-ended questions, to assess the frequency of artificial intelligence tool implementation, skill development, and familiarity with technological advancements in accounting.

Qualitative insights were gathered through interviews with eight survey respondents, exploring their experiences, role changes, and the impact of artificial intelligence on professional development.

Reports from the Association of Chartered Certified Accountants (ACCA), the International Federation of Accountants (IFAC), the World Economic Forum, and relevant academic literature provided auxiliary evidence and trend validation.

The survey concentrated on five critical skill areas affected by artificial intelligence: data analytics and interpretation, technical software proficiency, strategic thinking, regulatory awareness, and human-artificial intelligence collaboration. Respondents assessed both the importance and frequency of each skill category before and after artificial intelligence integration. Data collection was conducted over three months, from January to March 2025, providing a timely view of technological changes in accounting following the COVID-19 pandemic.

Means and standard deviations were calculated to identify differences in skill importance pre- and post-artificial intelligence adoption. Paired t-tests were used to determine whether these changes were statistically significant.

Thematic analysis, aided by NVivo software, was employed to identify recurring themes in interview transcripts. Core themes such as “task automation,” “strategic repositioning,” “reskilling urgency,” and “artificial intelligence-induced job redesign” were extracted.

Validity was enhanced by triangulating data from surveys, interviews, and public reports, ensuring a comprehensive and trustworthy analysis of artificial intelligence’s impact on accounting skills. Survey instruments were pretested with five accounting professionals of varying experience and organizational backgrounds. Feedback led to adjustments in survey questions to improve clarity and objectivity.

Reliability was assured by establishing uniform coding standards for qualitative data. To maintain inter-rater reliability, two independent coders were involved in thematic analysis, with Cohen’s



Kappa statistic indicating a high agreement coefficient of 0.83. Comparing interview transcripts with field notes further reduced the risk of interpretive bias.

4. Results and Discussion

The analysis first examines the transformation of skills in accounting driven by artificial intelligence. Survey data indicate that artificial intelligence is fundamentally reshaping skill requirements across the accounting profession. More than 85 percent of respondents agreed that manual bookkeeping and transactional processing skills are becoming increasingly obsolete due to technological advancements. Instead, strategic insight, data management, and proficiency with intelligent software have emerged as core competencies, effectively reducing the need for routine manual tasks. On average, participants rated data literacy and analytical thinking at 4.5, whereas routine ledger work was rated significantly lower, at 2.9 (Table 2). These findings demonstrate that advanced cognitive and analytical abilities are now more essential for accounting professionals than ever before (ACCA, 2021).

Table 2: Shift in Skill Importance before and After AI Integration

Skill Category	Average Pre-AI Importance	Average Post-AI Importance
Manual Data Entry	4.2	2.3
Regulatory Compliance	3.7	3.9
Analytical Thinking	2.9	4.5
Use of AI/Automation Tools	2.2	4.3
Strategic Business Insight	3.1	4.4

Automation has had less impact in corporate finance and public practice, but it has eliminated much of the manual work involved in reconciliation, invoice processing, and payroll processing (World Economic Forum, 2020). Thematic analysis of interview responses revealed four recurring themes among accounting professionals managing artificial intelligence disruption. Participants reported a significant reduction in the need for basic administrative duties. One interviewee from a mid-tier organization explained that much of the work previously performed as a junior accountant is now completely automated through artificial intelligence. Of the twenty participants, fifteen pursued training in data analytics, cloud accounting, or digital transformation, demonstrating their intention to remain relevant within the profession. This aligns with broader industry changes showing that upskilling is now a prerequisite for success in accounting (Akim, 2020; Kokina et al., 2021; Mate, 2022; Minella, 2025). Most participants did not support the notion of job loss, instead describing artificial intelligence technologies as beneficial partners that increase both the speed and accuracy of reporting when overseen by humans. Senior accountants emphasized that while artificial intelligence analyzes trends, interpretation and decision-making remain the responsibility of accountants. As transactional responsibilities are reduced, accountants find themselves engaged more in strategic planning. These findings indicate that as artificial intelligence addresses technical tasks, the need for enhanced interpersonal and analytical skills increases, raising accountants to the role of strategic advisors. Analysis based on experience level showed that junior professionals were more adaptable and confident in adopting artificial intelligence technologies compared to those with extensive experience. However, senior professionals demonstrated a stronger ability to integrate artificial intelligence findings into strategic decision-making. Corporate finance professionals displayed the fastest adoption of artificial intelligence tools and strategic participation, while audit professionals experienced the lowest adoption rates due to strict regulatory requirements (ICAEW, 2022).



Table 3: Comparative Analysis of Comparative AI Impact by Sector

Segment	High AI Use (%)	High Strategic Engagement (%)
Corporate Finance	90%	80%
Public Practice	75%	65%
Audit & Compliance	60%	50%

These results demonstrate the differences in artificial intelligence adoption across sectors and its relevance for workforce retraining, as reported in Table 3. Professionals in corporate roles emphasize data analysis and trend prediction, while those in audit roles concentrate on applying strict regulations and process standards. The findings make it clear that artificial intelligence is changing how accountants work rather than eliminating their jobs. There is a growing demand for skills such as data analysis, effective information utilization, and proficiency with artificial intelligence systems, while basic accounting tasks are increasingly automated. The study supports the view that artificial intelligence is driving a shift in accounting, moving it from a transactional role to one centered on strategy. Individuals most committed to lifelong learning and digital competency are likely to achieve greater success in this evolving environment. The effective adoption of artificial intelligence by accountants depends largely on technological innovation and the willingness of the workforce to adapt their skills and roles.

4.1. Discussion

The study was intended to analyze how artificial intelligence reconfigures accounting responsibilities by emphasizing evolving skill needs. The findings confirm that artificial intelligence has transformed accounting by taking over repetitive tasks and necessitating analytical, strategic, and digital skills. Most respondents, regardless of sector or experience level, noted that accounting jobs are shifting rather than disappearing (ACCA, 2021). Survey data revealed that routine activities such as data entry, reconciliations, and payroll processing have been automated, with artificial intelligence tools accomplishing these tasks more efficiently and accurately than before (World Economic Forum, 2020). As a result, human professionals increasingly focus on business analytics, strategic planning, and advisory services. Only professional groups that prioritize analytical thinking and expertise in artificial intelligence tools highlight the area's changing focus. This technological shift signals that development is reshaping, not destroying, the future of accounting (Tila & Cera, 2021; Kokina et al., 2021; Clark, 2022).

The results support previous research indicating that artificial intelligence transforms accounting roles without eliminating positions. As Pan and Seow (2016) described, the emergence of smart technologies in accounting has shifted the emphasis from static tasks to decision making, communication, and data literacy skills. This aligns with current findings showing that most participants recognized the ongoing need to enhance skills and integrate technology to remain relevant. The outcomes also confirm the hypothesis of Richins et al. (2017), explaining that artificial intelligence and data analytics strengthen rather than diminish professional judgment. Many participants indicated that artificial intelligence has allowed them to reduce time spent on routine work, providing opportunities for more interpretive and consultative activities. These observations support the view of ACCA (2021) that accountants will increasingly act as interpreters of automated results, integrating digital outputs with human reasoning. The study also validated that more than technical abilities are required for those practicing accounting in an artificial intelligence-enhanced environment. Adaptability, ethical awareness, and communication have been identified as essential skills. Participants reiterated the importance of emotional intelligence and effective communication



with stakeholders in their changing roles. Exploring lifelong learning and digital literacy further underscores the centrality of continuous education in the context of artificial intelligence-enhanced accounting.

Ongoing technological advancement shortens the relevance of traditional skills. Participants who prioritized continuous learning in data analytics, artificial intelligence systems, and digital platforms reported higher job fulfillment and greater adaptability to changes. This conclusion is consistent with earlier research, which emphasizes the value of proactive learning to develop digital resilience (Pan and Seow, 2016). Similarly, these results align with recommendations by Kokina et al. (2021), which stress the integration of digital literacy and systems thinking in accounting education. Participants sought to understand not only new software but also how artificial intelligence operates, makes decisions, and connects with organizational systems. Understanding artificial intelligence processes enables accountants to link insights produced by artificial intelligence with critical business decisions. The research also identified a generational gap in artificial intelligence adoption, with younger participants showing more comfort with artificial intelligence systems, while some older professionals expressed hesitation. This generational divide creates both challenges and opportunities, supporting the need for tailored training to promote digital skills across the workforce. The study also demonstrates that artificial intelligence affects accounting competencies differently across fields. In corporate finance, artificial intelligence enables real-time performance monitoring, advanced predictive modeling, and scenario analysis, increasing the need for skills in dashboard interpretation and strategic advice. This segment now gives priority to analytical thinking and business communication. In contrast, the audit and compliance sectors show slower artificial intelligence adoption, partly due to regulations that require strict oversight of automation in high-risk decisions. However, developments in anomaly detection, fraud analytics, and document verification demand that auditors learn to interpret artificial intelligence-generated alerts and results (ICAEW, 2022). Participants noted that analytical and evaluative tasks are becoming primary responsibilities. Smaller firms within public practice have been slower to adopt artificial intelligence because of budget and training constraints, yet clients increasingly seek technology-supported services, including automated tax filing and artificial intelligence-driven financial forecasting. Client demand is compelling firms to adopt technological advances and enhance staff competencies regardless of resource limitations. Although accounting roles are consistently shifting toward higher-value, data-driven positions, the specifics of these changes differ by individual and organization.

Ethical considerations related to artificial intelligence in accounting were also discussed in depth. Participants expressed concern about transparency and the explainability of artificial intelligence outcomes in decision-making. When computational models influence audit conclusions, taxation, or disclosures, accountants have a responsibility to explain and justify results to stakeholders, regulators, and clients. This perspective echoes Richins et al. (2017), who emphasized the importance of ethical supervision to build trust in financial reporting. Findings also highlighted ongoing concerns about data protection and client confidentiality when using artificial intelligence cloud solutions, consistent with broader digital governance issues. Professional skepticism must extend to reviewing artificial intelligence-generated decisions alongside human judgment. The research recognizes that professional bodies and regulators have an opportunity to develop ethics frameworks tailored for artificial intelligence applications. Effective governance is needed to ensure transparent, responsible, and reliable use of artificial intelligence in accounting (IFAC, 2022). Accountants are expected to help monitor the ethical application of artificial intelligence, ensuring that these technologies reflect organizational values and meet legal standards.

Although this study primarily addresses short-term and midterm effects, it also points to deeper, long-term changes for the accounting profession. With the growing use of artificial intelligence, the



fundamental role of accountants is likely to shift from numerical tasks to serving as trusted advisors and ethical leaders. The primary value of accountants will be their ability to bridge departments, align internal metrics with corporate strategy, and lead teams through emerging challenges. Adapting to this new environment requires transformation in accounting education, which often prioritizes technical accounting over data science, communication, and strategic analysis. Educational institutions must revise curricula to match industry demands and offer optional studies in artificial intelligence (Kokina et al., 2021; van Zanden, 2023; Iqbal & Hayat, 2025). Regulatory authorities are also obliged to guide this transformation by integrating digital aptitude, artificial intelligence ethics, and human-technology collaboration into continuing professional development and certification programs.

Despite the important findings, this study has limitations. The small sample size, with a focus on Pakistan, may limit the generalizability of results to other regions. Additionally, because artificial intelligence evolves rapidly, the patterns observed for 2025 may change in a few years. To enhance understanding, there should be ongoing evaluation of artificial intelligence competencies across countries and over time. Comparative research can offer insights into the digital divide within the accounting sector of developed and developing economies. Increasing research on the relationship between artificial intelligence and factors such as job satisfaction, employee retention, and organizational culture will provide further understanding of the future of accounting work.

5. Conclusions and Policy Implications

The results of the research show that artificial intelligence is influencing the accounting system not by replacing professionals, but by changing the nature of their work. Using a survey-interview method, the study confirmed that routine tasks such as data entry, transaction record keeping, and basic compliance procedures are increasingly performed by artificial intelligence, including through robotic process automation and predictive analytics. Automation is transforming the profession toward responsibilities centered on interpretation, strategic influence, and ethical judgment, requiring the integration of digital skills with interpersonal competencies. The findings demonstrate that the competencies needed for effective performance in artificial intelligence-supported accounting environments have evolved. Skills in data analytics, working with artificial intelligence software, business insight, and effective communication are now essential, while traditional manual and repetitive work is becoming less significant. This shift makes continuous training and education a primary concern for the profession.

The study highlights that artificial intelligence implementation varies significantly between sectors and by level of expertise. Large organizations and corporate finance departments are leading in adopting artificial intelligence tools, whereas audit and small firms lag due to financial limitations and regulatory constraints. Without inclusive digital transformation initiatives, these disparities may create unequal opportunities within the profession. There is also a generational gap, requiring adaptive training approaches for both less technologically inclined professionals and those already comfortable with digital tools. The intersection of artificial intelligence and accounting increasingly depends on addressing ethical challenges. Issues such as algorithmic bias, cybersecurity, and understanding the outputs of artificial intelligence reinforce the need for accountants to uphold professional ethics. Accountants are expected not only to use artificial intelligence responsibly but also to evaluate its outputs critically and contribute to ethical decision-making in professional practice. This highlights the necessity for accountants to balance technical expertise with a commitment to public trust. The research indicates that the future of accounting involves continuous professional evolution, with artificial intelligence catalyzing both technical skill development and



visionary thinking. Achieving this balance is vital to cultivating a competent, ethical, and forward-looking accounting workforce.

While the overall outlook is optimistic, several barriers were identified. Budget restrictions and inadequate technology resources were significant challenges for small firms, resulting in slower artificial intelligence adoption and greater skills gaps. Resistance to change was also observed, with nearly 35 percent of experienced professionals expressing concerns about implementing new technologies, often due to learning difficulties and fear of losing control. Respondents further cited issues of transparency in artificial intelligence decision-making, particularly in areas like risk assessment and fraud detection, where errors could have legal consequences. The study's limited geographic focus and sample size may affect the broader applicability of its results. Nonetheless, the findings offer a credible perspective on how digital transformation is shaping accounting competencies within a developing country.

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