Digital Skills Gap in Accounting Automation in Nigeria: A Theoretical Context

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Abstract
This study examined the digital skills gap in accounting automation journey in Nigeria from a theoretical perspective, based on the rapid adoption of accounting technology in its various contours with its altering of the accounting landscape from its traditional manual-driven milieu to analytics and strategic focused. Gleaned from the open-source literature and Nigerian context-specific studies, it is evident that there is an emerging accounting technology driven ecosystem, but the digital competencies required to effectively utilize and deepen these technologies remain inadequate among many accounting graduates and professionals in Nigeria. Hence, based on the open-source Nigerian context-based studies interrogated, there exists a significant mismatch between accounting education curricula, acquired skill sets and industry accounting-technological demands. While, organisations increasingly invest in automated accounting systems, deficiencies in technical ICT skills, data analytics competence, ERP proficiency, AI knowledge, and cybersecurity awareness constrain effective utilization. The study further established from the review that contextual factors such as quality of accounting education, professional training frameworks, organizational digital investment, ICT infrastructure, and regulatory support significantly influence the magnitude of the skills gap. Hence, harnessing the gains of accounting technology is feasible only when users possess adequate digital competence. Therefore, bridging the digital skills gap requires comprehensive curriculum reform, continuous professional development, institutional investment in digital infrastructure, and stronger collaboration between academia, professional bodies, and industry.

Keywords: *Digital Skills Gap, Accounting Automation, Artificial Intelligence, Accounting Education*

1. Introduction

The global business environment has been marked by an unprecedented acceleration in technological innovations. The adoption of digital technologies has reshaped not only organizational processes but also the skill requirements of professionals across industries (Adepoju & Aigbavboa, 2021). Within this context, accounting, traditionally viewed as a domain reliant on manual calculations and bookkeeping, has undergone a substantial transformation due to automation and artificial intelligence (Celestin, 2024; Chigbata, Onyali, & Uchegbu, 2025). Digital accounting systems, cloud-based platforms, and AI-driven analytics tools have

increasingly become essential components of modern financial management. These tools promise efficiency, accuracy, and real-time reporting capabilities (Odunayo et al., 2023; Eze & Obi, 2025). However, the pace at which such technologies are introduced often outstrips the rate at which practitioners are equipped with the requisite digital competencies. This dynamic raises questions about the preparedness of accounting professionals and graduates to adapt to the demands of an automated accounting environment (Adeniwura, Sokunbi, Toriola, & Ndubueze, 2025).

In Nigeria, the integration of technology into accounting practices has been both gradual and uneven. While some sectors, particularly the banking and energy industries, have embraced advanced accounting software and ERP systems, others still rely on basic computerized record-keeping (Nwankwo, Igwe, & Nnamani, 2025; Ezeokafor, 2025). The disparity is further complicated by the differing levels of exposure and training in digital skills provided within academic institutions versus industry expectations (Abdullahi, Markus, Emaikwu, & Ladan, 2025). A notable challenge emerging from this transformation is the so-called "digital skill gap" in accounting. This gap refers to the divergence between the skills that accounting graduates and professionals possess and the skills required to efficiently operate automated and AI-driven accounting systems (Odigili & Omorojie, 2025). It encompasses not only technical proficiency in software usage but also the ability to interpret and leverage digital data for strategic decision-making (Joshua & Apuru, 2024; Adetunla & Chowdhury, 2025). While the benefits of automation in accounting are widely acknowledged, concerns have emerged regarding the readiness of the workforce to fully exploit these innovations. Studies suggest that the mere availability of advanced accounting technologies does not guarantee improved performance or productivity if users lack the foundational digital competencies (Nwankwo et al., 2025; Omemgbeoji & Ofor, 2024). In this light, the digital skill gap becomes a potential bottleneck, affecting both organizational efficiency and the professional growth of accountants.

Academic programs in Nigeria, particularly those focusing on accounting and business education, have made efforts to integrate technology into their curricula. Nonetheless, evidence indicates that the pace and scope of integration vary, with some institutions lagging behind industry requirements (Ibrahim, 2024; Emefiele, 2025). The question arises as to whether the current curriculum adequately prepares graduates for the demands of an automated accounting environment or if there are structural limitations that hinder skill acquisition (Akande & Atiku, 2022). Moreover, the rapid evolution of disruptive technologies such as AI, blockchain, and cloud accounting introduces a moving target for skill acquisition. Professionals trained on older systems may find their competencies becoming obsolete in a relatively short period (Olaoye, 2025; Uzomah & Eruetemu, 2024). Consequently, continuous professional development becomes essential, yet the extent to which Nigerian accountants can access such opportunities remains uncertain (Oladele et al., 2021; Ndukwe & Okoro, 2024).

The skill gap is not only a technical issue but also an institutional one. Factors such as inadequate infrastructure, limited access to software licenses, and inconsistent training programs contribute to the inability of accounting professionals to fully leverage automation tools (Sanni, 2023; Olurankinse & Mamidu, 2023). These systemic challenges suggest that the problem is multidimensional, requiring both academic and industry-led interventions. Another aspect of the problem relates to employability. Employers increasingly seek candidates who can navigate automated accounting platforms and interpret data insights, yet many graduates report limited exposure to such tools during their studies (Odigili & Omorojie, 2025; Aduwari, 2025). This discrepancy could affect career progression, professional confidence, and the overall effectiveness of accounting services within organizations. In addition, research indicates that geographic and

socio-economic factors may influence access to digital skills acquisition (Joshua & Apuru, 2024; Adetunla & Chowdhury, 2025). Graduates from institutions with better resources tend to have higher exposure to digital accounting tools compared to those in less equipped environments, further accentuating the skill gap. Such disparities may have implications for equity and consistency in professional competence across the nation.

The digital skill gap also raises questions regarding the relevance of current accounting curricula in Nigerian universities. Some studies suggest that curricula may lag behind contemporary industry demands, leading to a mismatch between academic training and professional expectations (Ezeokafor, 2025; Celestin, 2024). This misalignment could limit graduates' ability to contribute effectively to digitally enabled organizations and hinder the adoption of automation technologies. While policy discussions have emphasized technology adoption, there appears to be less focus on structured frameworks for equipping professionals with requisite digital competencies (Abdullahi et al., 2025; Olurankinse & Mamidu, 2023). The absence of a coherent strategy for bridging the gap between education and industry practice suggests that the problem may persist unless targeted interventions are implemented.

Despite the growing body of literature on digital skills and accounting automation, empirical evidence specific to Nigeria remains limited. There is a need to understand how the skill gap manifests in academic contexts, how it affects the readiness of graduates for automated accounting roles, and what measures can effectively mitigate this gap (Ogbu, 2025; Oladele et al., 2021). Such inquiry could provide insights for curriculum development, professional training programs, and policy formulation. Against this backdrop, questions arise regarding the nature, extent, and consequences of the digital skill gap in accounting automation within Nigeria. How well are accounting programs preparing students for automation? Which competencies are most lacking, and how do institutional and socio-economic factors influence skill acquisition?

2. Accounting Automation

Accounting automation refers to the use of technology to perform accounting tasks that were traditionally done manually, such as recording transactions, reconciling accounts, and preparing financial reports (Olurankinse & Mamidu, 2023; Odunayo et al., 2023). It leverages digital tools, software systems, and artificial intelligence to improve accuracy, reduce human error, and increase efficiency in financial management (Olaoye, 2025; Chigbata, Onyali, & Uchegbu, 2025). By automating routine processes, organizations can reallocate human resources to higher-value tasks, enhancing both productivity and strategic decision-making. The adoption of accounting automation has grown in response to increasing transaction complexity and regulatory requirements. Traditional manual accounting methods often struggle to process large volumes of data or generate timely reports, whereas automated systems can handle these tasks efficiently while ensuring compliance with financial reporting standards (Nwankwo, Igwe, & Nnamani, 2025; Ndukwe & Okoro, 2024). This capability allows organizations to respond more quickly to business dynamics and provides management with actionable insights derived from accurate financial data.

Beyond operational efficiency, automation has implications for workforce development in accounting. By reducing time spent on routine entries, automation allows accountants to focus on analytical and advisory roles, such as financial planning, forecasting, and performance analysis (Olaoye, 2024; Joshua & Apuru, 2024). However, these benefits are contingent upon the digital competence of accounting professionals, highlighting the critical link between technology adoption and skill development (Nwankwo et al., 2025; Aduwari, 2025). While automation offers significant advantages, challenges exist, including high implementation costs, limited

infrastructure, and resistance from employees unfamiliar with digital systems (Sanni, 2023; Olurankinse & Mamidu, 2023). Additionally, gaps remain between academic preparation and industry requirements, as many accounting graduates may not acquire sufficient practical experience with automated tools during their studies (Ibrahim, 2024; Odigili & Omorojie, 2025). These gaps contribute to a persistent digital skill deficit that can hinder the effective utilization of accounting technologies.

Scholars have defined accounting automation in varying ways, emphasizing both the technological and operational aspects. Oladele et al. (2021) describe it as the deployment of digital technologies to execute accounting functions with minimal human intervention, while Chigbata et al. (2025) highlight the integration of AI and cloud-based systems for efficient financial processing. Despite these variations, a central theme emerges: automation seeks to enhance accuracy, efficiency, and strategic value in accounting functions. For the purpose of this study, accounting automation is conceptualized as the systematic use of digital technologies, software systems, and artificial intelligence to perform, streamline, and improve accounting tasks, reducing human error and enhancing efficiency, while enabling accountants to focus on analytical and strategic responsibilities.

3. Digital Skills Requirements in Context of Accounting Automation

Digital skills in the accounting profession encompass the ability to effectively use technology to perform, analyze, and communicate financial information in increasingly automated environments. These skills go beyond traditional bookkeeping and financial reporting, including competencies in accounting software, data analytics, cloud computing, and emerging technologies such as artificial intelligence (AI) and blockchain (Chigbata, Onyali, & Uchegbu, 2025; Olurankinse & Mamidu, 2023). The modern accountant is expected not only to record transactions but also to interpret digital financial data, provide strategic insights, and ensure compliance with evolving regulatory standards. With the growing integration of automation tools in accounting, the demand for digitally skilled accountants has surged. The use of Enterprise Resource Planning (ERP) systems, AI-driven auditing tools, and cloud-based accounting platforms requires professionals to acquire technical proficiency in software applications, data visualization, and predictive analytics (Olaoye, 2025; Odunayo et al., 2023). For instance, accountants must be able to manipulate large datasets, detect anomalies, and generate real-time reports that inform decision-making processes. Consequently, digital skills are no longer optional but integral to professional competence and employability.

Digital skill development in accounting is not limited to technical proficiency. It also involves analytical and critical thinking capabilities to interpret digital financial data and convert it into actionable insights (Joshua & Apuru, 2024; Omemgbeoji & Ofor, 2024). Accountants must understand the limitations of automated systems, validate the accuracy of outputs, and ensure that technological solutions align with organizational objectives. Such skills bridge the gap between raw data processing and strategic financial management, highlighting the dual role of accountants as both technology users and decision-makers. The acquisition of digital skills in the accounting profession is closely tied to education and continuous professional development. Academic programs are increasingly incorporating modules on digital accounting, data analytics, and AI applications to prepare graduates for industry demands (Abdullahi, Markus, Emaikwu, & Ladan, 2025; Emefiele, 2025). However, disparities exist in the extent and quality of digital training across institutions, with some graduates entering the workforce inadequately equipped to handle automated accounting systems (Ibrahim, 2024; Odigili & Omorojie, 2025). Continuous

professional training and certification programs, therefore, play a critical role in closing skill gaps and keeping accountants abreast of technological advancements.

Research indicates that insufficient digital skills can limit the effectiveness of accounting automation, even when organizations invest heavily in technology (Nwankwo, Igwe, & Nnamani, 2025; Aduwari, 2025). Accountants who lack competence in software systems, data analysis, or AI applications may underutilize available tools, leading to inefficiencies, errors, and missed opportunities for strategic contribution. This underscores the importance of developing both foundational digital skills and advanced competencies to fully leverage the potential of automated accounting systems. Digital skills also have broader implications for the profession, including ethical and regulatory considerations. Accountants must ensure that data is accurately processed, securely stored, and appropriately reported, particularly in cloud-based and AI-enabled environments (Olaoye, 2025; Uzomah & Eruetemu, 2024). Ethical use of technology, coupled with digital literacy, enhances transparency, strengthens stakeholder trust, and safeguards the integrity of financial information. Consequently, digital skill development is not merely a technical concern but a professional imperative that shapes the credibility and relevance of accounting practice.

4. The Digital Skills Gap Context

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5. Accounting Automation in Nigeria

The adoption of accounting automation in Nigeria has been gradually transforming the financial management landscape, driven by the need for efficiency, accuracy, and compliance in organizational reporting. Over the past decade, Nigerian organizations have increasingly invested in digital accounting tools, ranging from basic computerized bookkeeping systems to sophisticated Enterprise Resource Planning (ERP) and cloud-based platforms (Odunayo et al., 2023; Eze & Obi, 2025). The adoption process reflects a response to growing business complexities, regulatory pressures, and the global shift toward technology-driven accounting practices. In the Nigerian banking and oil and gas sectors, automation has seen significant uptake due to the high volume of transactions and the critical need for accurate reporting. Banks, for instance, have integrated AI-driven software for reconciliations, fraud detection, and real-time financial reporting (Chigbata, Onyali, & Uchegbu, 2025; Uzomah & Eruetemu, 2024). Similarly, large multinational corporations in Nigeria employ automated accounting systems to consolidate financial data across subsidiaries, streamline tax computations, and enhance audit readiness (Ezeokafor, 2025; Omemgbeoji & Ofor, 2024). These early adopters illustrate the potential of automation to improve operational efficiency and decision-making.

Despite these advancements, the adoption of accounting automation in Nigeria is uneven across sectors and organizations. Small and medium-sized enterprises (SMEs) often face barriers such as limited capital, inadequate infrastructure, and insufficient access to technology (Nwankwo, Igwe, & Nnamani, 2025; Nwakeze & Onwuliri, 2021). Furthermore, organizational culture and resistance to change sometimes hinder the effective integration of automated systems, particularly in firms with long-standing manual processes (Sanni, 2023; Olurankinse & Mamidu, 2023). This disparity highlights the need for targeted strategies to facilitate adoption in less technologically advanced organizations. The academic environment has also contributed to shaping the adoption of automation in Nigeria. Universities and professional training institutions have increasingly integrated accounting software training, data analytics, and AI modules into curricula to prepare graduates for technology-driven workplaces (Abdullahi, Markus, Emaikwu, & Ladan, 2025; Emefiele, 2025). However, studies indicate that gaps remain between the skills taught in academia and the competencies demanded by industry, leading to challenges in workforce readiness for automated accounting systems (Ibrahim, 2024; Odigili & Omorojie, 2025).

Moreover, regulatory and policy frameworks in Nigeria have influenced the adoption of accounting automation. Initiatives by the Corporate Affairs Commission (CAC), the Central Bank of Nigeria (CBN), and professional bodies such as the Institute of Chartered Accountants of Nigeria (ICAN) encourage transparency, accuracy, and timely reporting, indirectly incentivizing organizations to adopt automated systems (Olaoye, 2025; Uzomah & Eruetemu, 2024). While these policies create a conducive environment, enforcement inconsistencies and infrastructural challenges can slow adoption rates, particularly in smaller enterprises and public institutions. The adoption of accounting automation in Nigeria is thus characterized by both progress and disparity. While some sectors and large organizations have embraced advanced technologies, others lag due to financial, infrastructural, and skill-related constraints (Odunayo et al., 2023; Nwankwo et al., 2025). Consequently, the extent and effectiveness of adoption remain uneven, raising questions about the overall readiness of the accounting workforce to leverage automation fully.

6. Theoretical Premise for Skill Sets Upgrade

Basis for understanding the digital skill gap in accounting automation can be grounded in Human Capital Theory (HCT). Human Capital Theory, initially articulated by Becker (1964), posits that individuals' knowledge, skills, and competencies constitute a form of capital that can generate economic value. Within professional contexts, investing in human capital through education, training, and skill development enhances productivity and efficiency. Applied to the accounting profession, HCT provides a framework for examining how digital skills or the lack thereof affect accountants' ability to utilize automated systems effectively (Oladele et al., 2021; Emefiele, 2025). Human Capital Theory emphasizes that knowledge and skills are not innate but acquired through formal education, professional training, and experiential learning. In the context of accounting automation, this implies that the ability to operate ERP systems, AI-driven financial software, and other automated tools is contingent on deliberate investments in learning and development (Abdullahi, Markus, Emaikwu, & Ladan, 2025; Joshua & Apuru, 2024). Consequently, digital skill gaps in the profession may arise when educational curricula, training programs, or workplace learning opportunities fail to equip accountants with the competencies required for modern accounting technologies.

The theory also highlights the economic and organisational implications of skill acquisition. Human capital is expected to enhance productivity, reduce errors, and generate value for organizations (Chigbata, Onyali, & Uchegbu, 2025; Akande & Atiku, 2022). Within automated accounting environments, accountants who possess robust digital skills are better positioned to leverage technology for analytical and strategic functions. Conversely, the absence of adequate digital competencies can limit the benefits of automation, undermining operational efficiency and organizational performance (Nwankwo, Igwe, & Nnamani, 2025; Aduwari, 2025). HCT further suggests that gaps in human capital, such as digital skills deficits, can lead to disparities in professional outcomes. For instance, accountants who have access to digital training and exposure to automated systems are likely to exhibit higher performance and employability than those who do not (Odigili & Omorojie, 2025; Ibrahim, 2024). This theoretical lens therefore provides a rationale for exploring how the availability and quality of training influence the digital skill gap in the accounting profession.

The acquisition of digital skills, according to HCT, is also influenced by both individual and institutional factors. Individual factors include motivation, cognitive ability, and prior experience with technology, while institutional factors encompass the quality of education, availability of training resources, and organizational support for continuous learning (Emefiele, 2025;

Olurankinse & Mamidu, 2023). In Nigeria, variations in these factors across universities, professional training centers, and workplaces may explain the uneven distribution of digital competencies among accounting professionals. Human Capital Theory underscores the importance of continuous skill development to keep pace with technological advancements. As accounting automation evolves with AI, blockchain, and cloud technologies, prior knowledge and competencies may become insufficient if not continuously updated (Olaoye, 2025; Uzomah & Eruetemu, 2024). This perspective aligns with the notion that digital skill gaps are dynamic and require ongoing investments in human capital to ensure professionals remain capable of effectively leveraging new tools.

The theory also suggests a direct link between skill development and economic returns. In accounting, investing in digital skills can result in increased efficiency, better decision-making, reduced errors, and enhanced career prospects (Oladele et al., 2021; Ezeokafor, 2025). At an organizational level, skilled accountants contribute to more effective financial reporting and resource management, demonstrating that human capital investment in digital competencies has both micro- and macro-level benefits. Human Capital Theory provides the lens through which the digital skill gap in accounting automation is understood. The theory posits that the digital skill gap arises when accountants lack sufficient training, experience, and exposure to technology, limiting their ability to effectively exploit automated systems. Therefore, bridging this gap requires targeted investments in education, professional development, and continuous learning initiatives, aligning human competencies with technological advancements (Abdullahi et al., 2025; Chigbata et al., 2025).

7. Nigerian Context-specific Studies

Empirical studies have increasingly examined the digital skills gap arising from the automation of accounting functions, particularly within developing economies such as Nigeria. Ibrahim (2024) investigated the readiness of future accountants for Industry 4.0 and found substantial deficiencies in automation-related competencies, including data analytics, digital reporting tools, and intelligent accounting systems. The study concluded that although awareness of digital transformation exists, practical skill acquisition remains weak, thereby limiting graduates' ability to function effectively in automated accounting environments. Similarly, Ezeokafor (2025) examined the alignment between academic accounting curricula and industry skill demands in Nigeria and reported a significant mismatch. The findings revealed that while employers increasingly demand proficiency in accounting software, artificial intelligence, and cloud-based systems, these competencies are inadequately covered in university curricula. This disconnect was also evident in the study by Nwakeze and Onwuliri (2021), who found that accounting diplomates lacked sufficient exposure to e-accounting frameworks, limiting their employability and effectiveness in technology-driven workplaces.

The persistence of the skills gap has also been linked to instructional capacity within educational institutions. Imoyera (2023) found that teachers' acquisition of digital skills significantly influences students' preparedness for modern accounting practice. Where educators lacked digital competence, students were less exposed to practical accounting technologies. Ogbu (2025) further demonstrated that re-skilling initiatives in adult and professional education enhance adaptability in the automation era, though such initiatives remain limited in scope and institutional support within Nigeria. Several studies have examined the implications of accounting automation for organizational performance, highlighting the critical role of digital competence. Nwankwo, Igwe, and Nnamani (2025) found that automated accounting software significantly improved the

efficiency of Nigerian SMEs' financial operations; however, the level of efficiency achieved depended largely on the users' technical capabilities. In a related study, Eze and Obi (2025) reported that computerized accounting systems improved operational processes in oil and gas firms in Port Harcourt, but inadequate digital skills constrained optimal system utilization. The importance of digital competence is further emphasized by Ighoroje et al. (2025), who empirically established that digital competence moderates the relationship between accounting information systems and employee productivity in Nigerian manufacturing firms. Their findings indicate that automation alone does not enhance productivity unless employees possess the requisite digital skills. Supporting this view, Odunayo et al. (2023) found that digital disruption improved the quality of financial reporting in Nigerian banks, but the effectiveness of such systems was significantly influenced by users' technical expertise.

Growing attention has also been given to the adoption of artificial intelligence in accounting practice. Omemgbeoji and Ofor (2024) reported that AI adoption positively influenced firm effectiveness among manufacturing companies in Nigeria, although limited AI-related skills hindered full realization of its benefits. Chigbata, Onyali, and Uchegbu (2025) similarly found that professional accountants in South-East Nigeria demonstrated low to moderate competence in AI-based accounting tools, despite increased awareness and interest in AI technologies. Earlier empirical evidence by Ologe (2020) revealed mixed perceptions among Nigerian accountants regarding AI adoption, with many professionals expressing apprehension due to inadequate training and fear of skill obsolescence. More recent cross-country analysis by Adeniwura et al. (2025) showed that Nigerian banks face deeper AI-related skill gaps compared to their UK counterparts, largely due to weaker training structures and slower institutional adaptation to technological change. Celestin (2024) also emphasized that without structured AI-focused training, accountants struggle to transition into automated roles. The broader economic and institutional implications of digital accounting technologies have also been explored. Olaoye (2024) found that cloud accounting contributes positively to employment generation and economic growth in Nigeria's public sector, though adoption remains constrained by skill shortages. Uzomah and Eruetemu (2024) similarly established that artificial intelligence and the digital economy influence Nigeria's economic performance, with human capital deficiencies identified as a major limiting factor.

8. Conclusion, Implications and Recommendations

The study clearly establishes that the Nigerian accounting education system has not sufficiently aligned its curricula with the technological demands of modern accounting practice. Most accounting programmes continue to prioritize theoretical knowledge while giving limited attention to practical training in accounting automation, artificial intelligence, and digital analytics. This misalignment has produced graduates who lack the technical skills needed to function effectively in automated accounting environments. It is further concluded that digital competence is a critical determinant of the success of accounting automation. Empirical evidence reviewed in the study shows that accounting automation improves efficiency, productivity, and financial reporting quality only when users possess adequate digital skills. Where such skills are lacking, automated systems are underutilized, operational errors increase, and resistance to technological change persists. This study concludes that a significant digital skills gap exists in the adoption and effective use of accounting automation in Nigeria. Although, organizations across sectors have increasingly implemented automated accounting systems, artificial intelligence tools, and cloud-based platforms, the required digital competencies to operate these technologies efficiently remain

largely inadequate among accounting graduates and practicing professionals. As a result, the full benefits of accounting automation are not being realized.

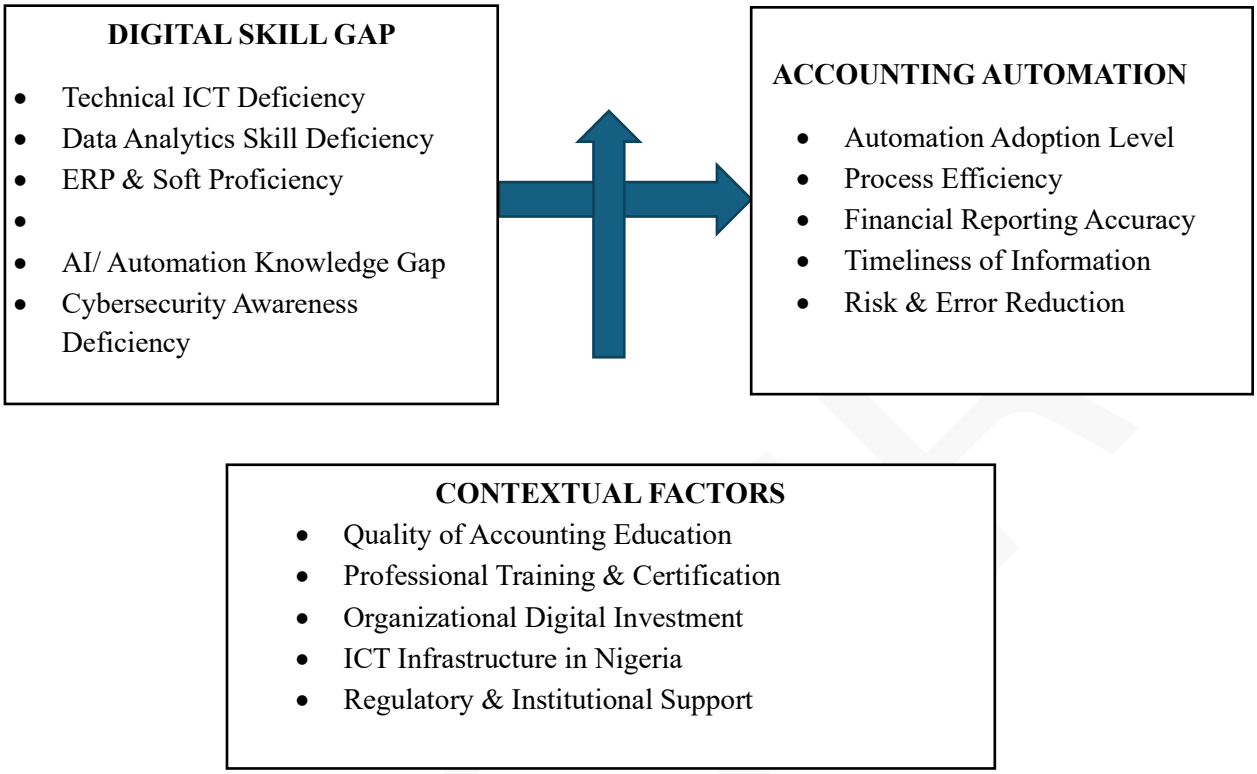
The observations from the open-source literature review have important implications for accounting education in Nigeria. The existence of a significant digital skills gap implies that current accounting curricula are inadequate for preparing graduates for automated accounting environments. Tertiary institutions must therefore redesign accounting programmes to integrate practical training in accounting automation, artificial intelligence, cloud accounting, and data analytics. Without such curriculum reforms, accounting graduates will continue to face employability challenges and struggle to meet industry expectations. For professional accounting practice, the study implies that accounting automation alone cannot guarantee improved efficiency or accuracy without corresponding digital competence. Organizations that invest in automated accounting systems must also invest in continuous training and capacity development for their accounting staff. Failure to address skill deficiencies may result in system underutilization, increased operational risks, and reduced return on investment in accounting technologies.

Furthermore, the observations also have implications for professional accounting bodies and regulatory institutions. The persistence of digital skills gaps suggests that existing professional training and certification frameworks may not adequately reflect emerging technological realities. Professional bodies should therefore strengthen continuous professional development programmes by making digital skills training mandatory and aligning certification requirements with contemporary accounting technologies. From a policy perspective, the study implies that the digital skills gap in accounting automation poses a broader threat to national economic efficiency and financial transparency. Policymakers must recognize digital accounting skills as a critical component of Nigeria's digital economy agenda. Targeted policies, funding support, and partnerships with educational institutions and industry players are necessary to promote large-scale digital skills development within the accounting profession. The implications of the study also extend to educators and trainers. The findings suggest that instructors themselves require continuous up-skilling to effectively deliver technology-driven accounting education. Institutions that fail to invest in staff digital competence risk producing graduates who are unprepared for automated accounting environments, thereby perpetuating the skills gap.

8.1 Emergent Model

From the open-source literature, the choreography of the digital skills gap in the accounting process automation in Nigeria can be seen from the espoused model. It depicts an ecosystem characterized by an interplay of various factors that define the contours of accounting automation pace and space in Nigeria.

Fig. 1 Digital Skills Gap in Accounting Automation in Nigeria



Source: Researcher Conceptualization, 2026

Therefore, it is recommended that accounting curricula in Nigerian tertiary institutions be comprehensively reviewed to reflect the realities of accounting automation. Practical training in accounting software, artificial intelligence applications, cloud accounting, and data analytics should be integrated as core components of accounting programmes rather than treated as optional courses. This will ensure that graduates acquire relevant digital competencies required in modern accounting practice. Educational institutions should also invest in the continuous digital up-skilling of accounting educators. Lecturers and instructors must be provided with regular training on emerging accounting technologies to enhance effective teaching and practical delivery. Partnerships between universities, professional bodies, and accounting software providers should be encouraged to facilitate access to modern accounting tools and learning platforms.

Professional accounting bodies in Nigeria should strengthen their continuous professional development (CPD) frameworks by making digital skills training mandatory for members. Certification and re-certification requirements should include competencies in accounting automation, artificial intelligence, and digital reporting systems to ensure that practicing accountants remain relevant in an evolving technological environment. Organizations adopting accounting automation should complement technology investment with structured staff training programmes. Employers should provide regular in-house training and external workshops to improve employees' digital competence, thereby maximizing the benefits of automated accounting systems and reducing operational inefficiencies associated with skill deficiencies. Government and policymakers should support digital skills development in the accounting profession through targeted policies and funding initiatives. Support for digital infrastructure, incentives for

professional training, and collaboration with educational institutions are necessary to promote widespread adoption of accounting automation and strengthen financial transparency across sectors.

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