ISSN E: 3006-1466
ISSN P: 3006-1458
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
CJSSR

CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
Vol.04 No.02 (2026)

DIGITAL TRANSFORMATION IN ACCOUNTING: THE IMPACT OF PROCESS AUTOMATION AND TECHNICAL INNOVATION ON ACCOUNTING INFORMATION QUALITY

Ume Ayeman,
Research Scholar, College of Commerce, Government College University, Faisalabad, Punjab, Pakistan
Email: umeayeman44@gmail.com
Muhammad Adnan Ali,
Teaching Assistant, Government College University, Faisalabad, Punjab, Pakistan
Email: muhammadadnanali@gcuf.edu.pk
***Shahid Mahmood**,
Research Officer, Government College University, Faisalabad, Punjab, Pakistan
Email: shahidmahmood@gcuf.edu.pk

***Corresponding author's Email:** shahidmahmood@gcuf.edu.pk

Abstract
The fast growth of digital technologies has significantly transformed business operations, requiring organizations to rethink how financial information is managed, processed, and reported. Process automation technologies such as robotic process automation (RPA), artificial intelligence (AI), and machine learning (ML) are changing accounting practices by reducing manual work, improving accuracy, and supporting real-time financial monitoring. At the same time, technical innovation provides the foundation for integrating advanced digital tools into accounting systems, creating opportunities for improved efficiency while also introducing challenges related to scalability, system compatibility, and governance.
This study examines the relationship between process automation, technical innovation, the quality of accounting information, and digital transformation within modern organizations. Using a systematic literature review, case study analysis, and quantitative PLS-SEM analysis, the study develops a conceptual framework that highlights major enablers and barriers across four key areas: automation readiness, technology integration, accounting information quality, and organizational transformation capability. The findings indicate that higher levels of automation maturity and stronger technological infrastructure positively influence the quality of accounting information. Furthermore, digital transformation functions as a strategic driver that strengthens the advantages of automation and increases the importance of reliable financial data for decision-making. This study offers a building-block model for achieving an effective digital accounting transformation strategy and provides practical insights for financial managers, IT governance professionals, and researchers in the field.

Keywords: *Process Automation, Digital Transformation, Accounting Information Quality, Technical Innovation, RPA, PLS-SEM, Financial Reporting*

1. Introduction
Due to the emergence of Industry 4.0 based technologies, several aspects of business operations have been transformed and significantly influenced, with accounting being just one of the most impacted industries (Xue et al., 2022). There is a radical change in the traditional accounting environment that was highly based on manual effort, professional judgment, and periodic reporting. With the introduction of the process automation, cloud computing, advanced analytics, and artificial intelligence (AI) has not only transformed the way financial processes are managed but also has dramatically increased the relevance, accuracy and efficiency in accounting information handling (Bhardwaj & Kumar, 2025). These analogous technologies are redefining the manner in which the accounting functions are being carried out in a way that is more streamlined, efficient and data-oriented approach to management of financial data and decision making.

ISSN E: 3006-1466
ISSN P: 3006-1458
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
CJSSR
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
Vol.04 No.02 (2026)

Automation of processes has emerged to be one of the pillars of the digital transformation in accounting (Vărzaru & Bocean, 2024). There is a growing move towards automating the traditional manual accounting processes including invoice processing, bank reconciliation, and compliance reporting and data entry. In particular, robotic process automation (PRA) has proven to be a game-changer as it has automated repetitive and rule-based activities, which now allow accountants to focus on more value-added activities (Gotthardt et al., 2020). Organizations can also gain more operational efficiency and less human error by automating these routine functions, which results in increased accuracy of financial data.

Automation of accounting processes has a variety of benefits to businesses. First, it saves a lot of time in processing and plans faster turnaround time and timelier financial reporting (Dashkevich et al., 2024). When dealing with a traditional accounting set up, manual tasks may be time consuming especially when dealing with large organization with large transaction volumes. To do this, process automation speeds up these processes, giving real-time or near real-time updates, which is essential in the modern business world where time is of the essence (X. Xue et al., 2025). Moreover, automation minimizes chances of errors that are brought about by manual data entry thus enhancing the accuracy of the financial reports. Consequently, organizations that strategically invest in automation technologies obtain a competitive advantage with regard to enhancing their efficiency and operational effectiveness. Research has indicated that by using automation, companies not only will incur fewer costs but would also have a better capacity in making decisions based on data hence commanding a good position in the competitive environment (Leitner-Hanetseder et al., 2021) .

Although process automation has enabled an increasingly efficient accounting function to be undertaken, technical innovation represents a vital element in ensuring that the gains achieved naturally fall into place (Teng et al., 2022). Cloud-based enterprise resource planning (ERP) systems, application programming interfaces (APIs), as well as blockchain-based solutions have revolutionized the buried infrastructure of contemporary financial systems. An example of cloud computing is that it allows real time access to accounting data, which provides them a centralized platform to access financial information (Anjarwi, 2026). This process of transitioning to cloud-based solutions improves the just-in-time collaboration among various departments and facilitates the availability and up-to-date status of financial data and, therefore, renders it more useful in the decision-making process (Liu et al., 2023).

Application programming interfaces (APIs) also contribute to the connection of the accounting systems, making it easy to exchange data between different software packages considered part of an organization (Xue et al., 2025). These integrations assure that financial information is auto-synchronized in the various systems, reducing the chances of inferring an inconsistent outcome and enhances accuracy of the data. Besides, blockchain technology is a secure and transparent method to document financial dealings, mitigating the risk of fraud and increasing faith in the financial reporting (Dashkevich et al., 2024). Through these innovations, accounting functions aptly designed in order to process complex financial data facilitating the provision of accuracy, security, and integrity of financial reports (Liu et al., 2023).

These technologies collectively establish a strong and adaptable digital ecosystem that enables the future of accounting practices. This ecosystem will help businesses to better manage their financial operations, stream-line their operations, and have more real-time data to use in making better decisions. Nonetheless, in all these advantages, there are also challenges of incorporating the technologies into the traditional accounting systems (Fettahoglu & Yikilmaz, 2025).

Complexity of process redesign is one of the main challenges that organizations experience when implementing new digital solutions as part of their accounting systems (Fang et al., 2023). The old accounting system was not designed to suit the complexity and size of new

ISSN E: 3006-1466
ISSN P: 3006-1458
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
CJSSR
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
Vol.04 No.02 (2026)

technologies; therefore, it is a challenging endeavor to convert the old accounting system to the digital system (Vitali & Giuliani, 2024). The issue of compatibility between the new technologies and the previously-existing systems as well as the excessive nature of the customization that needs to be finalized can make sure that the implementation costs will be high (Dashkevich et al., 2024).

Additionally, the use of digital solutions can often necessitate the acquisition of new technical skills by employees (Chen et al., 2024). Transitioning to digital accounting practices results in accounting professionals needing to get acquainted with such advanced technologies as cloud computing, RPA, and AI (Hamdy et al., 2025). This requires them to invest heavily in employee trainings and developments and this may be a blocker towards adoption, especially to smaller organizations that have limited resources (Zotorvie et al., 2025).

The other obstacle has to do with the privacy and security of data. With the rise of more and more of the financial data going digital, organizations are in need of making sure that they not only meet the requirements of becoming more digital, but they are also ready to counteract potential threats in the form of cyber-attacks (Huy & Phuc, 2025). These risks can be reduced by adopting blockchain and other secure technologies but organizations still require to invest in solid security systems and protocols to ensure that financial data is not exposed to risks of vulnerabilities (Ratmono et al., 2023).

Accounting information has also become a key determinant regarding financial reporting and decision making. In the era of digital innovations, it is important to consider whether the introduction of additional automated processes and other technical innovations will positively or negatively affect the quality of the information presented in accounting. Accuracy, completeness, timeliness, and relevance are the key dimensions of information quality that are essential to make sure that accounting data used is reliable and useful in the decision-making process of a manager (Xue et al., 2025).

Accuracy and timeliness of financial information can be improved through automation of accounting processes, which in turn can reduce the human error factor as well as the delays in processing the financial data (Sobczak, 2022). Real time access to financial information enables organizations to make quicker and better of the decisions, which is necessary in adapting to dynamic market conditions. Also, as the financial data is more comprehensive and consistent due to automation, the completeness of reports increases (Lievano-Martínez et al., 2022). The problem with this is not just that automated systems should be constructed and assembled appropriately to ensure the financial data contained in them remains relevant and accurate. Since more and more organizations are becoming increasingly dependent upon automated processes, a question arises as to whether or not these systems provide sufficient insight and can satisfy the needs of decision-makers (Sampaio & Silva, 2025).

Digital transformation in the accounting sector is not just restricted to the incorporation of new technologies (Martínez-Peláez et al., 2023). It can be viewed as an organizational shift that includes redesigns of processes, coming up with new strategies and a fundamental change in the use of data as a strategic resource. In the accounting function, digital transformation will not only involve the use of new advanced tools but also has to redefine employee roles and responsibilities (Nasiri et al., 2022). Following the introduction of automated systems to replace routine tasks, accountants will have to transform to become strategic advisors, using information to make decisions and drive business performance (Bhardwaj & Kumar, 2025).

Under this new paradigm, data is no longer simply a byproduct of financial transactions; it is an asset of the company which it employs to gain a competitive edge (Dashkevich et al., 2024). Digital transformation therefore is a process where organizations need to be able to establish a culture of innovation and agility that allows organizations continuously adapt to emerging technologies and market needs (Otia & Bracci, 2022). The success of implementing digital

ISSN E: 3006-1466
ISSN P: 3006-1458
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
CJSSR
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
Vol.04 No.02 (2026)

accounting systems is not just dependent on the technological solutions implemented but also on a vision, carefully planned that links technology with organizational objectives (Hamdy et al., 2025).

This study purpose is to analyze the associations among process automation (PA), technical innovation (TI), quality of accounting information (QAI), and digital transformation (DT) with reference to accounting practices (Fang et al., 2023). To investigate these relationships and their influence on the quality of accounting information, the study will be performed using both qualitative analysis of the case and quantitative PLS-SEM one. This study aims to shed more light on the impact that digital transformation will have on the quality of financial information and effectiveness of various accounting functions in general (Patrício et al., 2025).

2. Review of Literature

2.1 Process Automation in Accounting

However, over-reliance on automated systems without robust exception handling mechanisms introduces new categories of operational risk (Cosa & Torelli, 2024).

2.2 Technical Innovation and Digital Infrastructure

Process automation refers to the application of technology to perform structured and repetitive tasks with little or no human involvement (Xue et al., 2025). In the field of accounting, this includes robotic process automation (RPA) tools that replicate human activities such as data entry and transaction processing, intelligent automation systems that combine artificial intelligence for decision-based tasks, and advanced autonomous systems capable of managing complete financial processes from beginning to end. RPA has become widely used in areas such as accounts payable, accounts receivable, and financial closing procedures. By automating routine and rule-based activities, organizations can reduce manual workload and allow accounting professionals to focus on more strategic and analytical responsibilities(Liu et al., 2023). Previous studies highlight that strong top management support, standardized processes, and effective change management are essential factors for the successful implementation of RPA in accounting operations (Tiron-Tudor et al., 2022).

In addition to improving operational efficiency, process automation also strengthens internal control systems (Otia & Bracci, 2022). Automated controls integrated into digital workflows can ensure consistent compliance with organizational policies, reduce the risk of human error, and enable real-time detection of unusual transactions or financial irregularities (Leitner-Hanetseder et al., 2021). Technical innovation in accounting refers to the adoption and integration of advanced digital technologies into financial management systems. These innovations include cloud-based enterprise resource planning (ERP) platforms such as SAP and Oracle Fusion, data analytics applications, blockchain-supported audit systems, and artificial intelligence–based forecasting tools. Such technologies help organizations improve efficiency, enhance decision-making, and strengthen financial reporting processes (Dashkevich et al., 2024).

One of the most important issues in technical innovation is interoperability, which refers to the ability of new technologies to communicate and integrate effectively with existing systems (Shen et al., 2022). Many organizations still rely on legacy ERP systems that create challenges for seamless integration with modern digital tools. To overcome these difficulties, businesses often use middleware applications, API gateways, and data warehousing solutions to connect and synchronize different systems and databases (Nasiri et al., 2022). The Technology-Organization-Environment (TOE) framework provides a valuable perspective for understanding the adoption of technical innovation. According to this framework, factors such as technological readiness, organizational resources and capabilities, and external competitive pressures influence how quickly and effectively organizations adopt new technologies (Mu et al., 2025). In accounting environments, regulatory and compliance requirements add further

ISSN E: 3006-1466
ISSN P: 3006-1458
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
CJSSR
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
Vol.04 No.02 (2026)

complexity, as organizations must ensure that technological innovations align with legal and financial reporting standards.

2.3 Quality of Accounting Information

The quality of accounting information is a multidimensional concept that includes accuracy, completeness, timeliness, consistency, and relevance of financial data(Chen et al., 2024). High-quality accounting information is essential for effective decision-making, efficient allocation of resources, reduced information asymmetry between organizations and stakeholders, and stronger corporate governance practice (Martínez-Peláez et al., 2023). Reliable financial information also increases stakeholder confidence and supports transparency in business operations.

Automation technologies can influence the quality of accounting information in both positive and negative ways (Shen et al., 2022). On one hand, automated systems improve accuracy by reducing manual data-entry mistakes and minimizing delays in processing financial information. They also enable faster reporting and more consistent handling of financial transactions. On the other hand, if automated systems are poorly designed or incorrectly configured, they may spread errors throughout the system on a large scale. In addition, the complexity and limited transparency of machine learning models can create challenges for auditing and monitoring financial processes (Nasiri et al., 2022).

The conceptual framework of International Financial Reporting Standards Foundation (IFRS) identifies relevance and faithful representation as two fundamental characteristics of useful financial information. These characteristics ensure that financial reports provide accurate, reliable, and decision-useful information for investors, managers, regulators, and other stakeholders (Bisht et al., 2022).

In addition to relevance and faithful representation, supporting qualitative characteristics of useful accounting information include comparability, verifiability, timeliness, and understandability. These characteristics help ensure that financial information can be consistently interpreted, verified for accuracy, delivered at the appropriate time, and easily understood by users (Liu et al., 2023). Within modern accounting environments, these qualities provide important standards for assessing the effectiveness and reliability of automated accounting systems and digital financial processes (Sampaio & Silva, 2025).

2.4 Digital Transformation of Accounting Functions

Digital transformation in accounting extends beyond simply adopting new technological tools (Assidi et al., 2025). It represents a strategic shift in the role of accounting within organizations, transforming it from a traditional record-keeping function into a real-time analytical and decision-support capability that contributes to organizational intelligence and strategic planning (Xue et al., 2025).

A building-blocks model of digital transformation, adapted from the work of Laurent Vial, highlights several important components, including the use of digital technologies, technological disruptions, strategic responses, changes in value creation, structural adjustments, organizational barriers, and both positive and negative impacts of transformation (Nassani et al., 2023). In the context of accounting, these elements include the use of artificial intelligence for financial forecasting, competitive pressure to implement cloud-based reporting systems, and the cultural transformation required for accounting professionals to adopt data-driven decision-making approaches (Liu et al., 2023).

Studies have identified multiple barriers to successful digital transformation in accounting, such as employee resistance to change, lack of digital skills, insufficient IT infrastructure, and poor alignment between business objectives and IT strategies (Nassani et al., 2023). At the same time, several factors encourage digital transformation, including increasing regulatory requirements for electronic reporting, growing demand from management for real-time

ISSN E: 3006-1466
ISSN P: 3006-1458
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
CJSSR
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
Vol.04 No.02 (2026)

financial insights, and the need to reduce operational costs and improve efficiency (Leitner-Hanetseder et al., 2021).

3. Research Methodology

3.1 Research Design

This study applied a two-stage research methodology. The first stage involved a systematic literature review using an integrative approach to combine and analyze existing knowledge related to process automation, technical innovation, quality of accounting information, and digital transformation. The literature review process included the collection of relevant studies, descriptive analysis of the selected material, identification of major categories and themes, and critical evaluation of the findings.

To gather relevant literature, databases such as Emerald Publishing Insight, Elsevier Science Direct, and JSTOR were searched. The search included keywords and phrases such as "Process Automation" AND "Accounting," "Digital Transformation" AND "Financial Reporting," "Accounting Information Quality" AND "Technology," and "Technical Innovation" AND "Accounting Systems." The initial search identified 108 publications. After applying inclusion criteria including English-language publications, peer-reviewed journal articles, and studies primarily focused on the selected research dimensions final sample of 54 articles was selected for detailed analysis.

3.2 Quantitative Phase: PLS-SEM

The second stage of the study utilized Partial Least Squares Structural Equation Modelling (PLS-SEM) through the software Smart PLS 4.0 to examine the relationships among the research variables. The measurement model included four reflective constructs: Digital Transformation (DT) with 6 items, Process Automation (PA) with 6 items, Quality of Accounting Information (QAI) with 16 items divided into four sub-dimensions completeness, reliability, relevance, and understandability and Technical Innovation (TI) with 6 items.

Survey data were collected from 287 accounting and finance professionals using a structured questionnaire based on a 5-point Likert scale. To evaluate the possibility of common method bias, Harman's single-factor test was conducted. The results showed that the first unrotated factor explained 28.4% of the total variance, which is below the accepted threshold of 50%, indicating that common method bias was not a significant concern in the study.

3.3 Research Model

4. Results and Discussion

4.1 Measurement Model Evaluation

4.1.1 Outer Loadings

Table 1 presents the outer loadings matrix, reflecting the strength of association between each indicator and its corresponding latent construct. The indicator loading values are the results of the reflective measurement model in PLS-SEM that measures four constructs: Digital Transformation (DT), Process Automation (PA), Quality of Accounting Information (QAI), and Technical Innovation (TI).

The loadings for Digital Transformation (DT1–DT6) range from 0.607 to 0.807. The majority of items load satisfactorily (≥ 0.70), though DT5 (0.607) and DT6 (0.671) fall marginally below the conventional threshold, remaining acceptable in exploratory contexts. Process Automation (PA1–PA6) demonstrates strong loadings of 0.633 to 0.872, with PA3 through PA6 exceeding 0.80. Quality of Accounting Information (QAI) is operationalized across four sub-dimensions; Completeness and Relevance sub-dimensions score well (0.741–0.868), while Reliability items (QAI-R1 to QAI-R4) yield lower loadings of 0.454–0.592, warranting attention in the validation phase. Technical Innovation (TI1–TI6) shows the most stable loadings (0.739–0.869), confirming robust indicator validity.

ISSN E: 3006-1466
ISSN P: 3006-1458
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
CJSSR
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
Vol.04 No.02 (2026)

Table 1. Outer Loadings Matrix

Indicator	DT	PA	QAI	TI
DT1	0.783			
DT2	0.759			
DT3	0.797			
DT4	0.807			
DT5	0.607			
DT6	0.671			
PA1		0.633		
PA2		0.814		
PA3		0.853		
PA4		0.872		
PA5		0.848		
PA6		0.823		
QAI-C1			0.811	
QAI-C2			0.741	
QAI-C3			0.721	
QAI-C4			0.822	
QAI-R1			0.513	
QAI-R2			0.454	
QAI-R3			0.547	
QAI-R4			0.592	
QAI-RL1			0.702	
QAI-RL2			0.868	
QAI-RL3			0.735	
QAI-RL4			0.817	
QAI-U1			0.782	
QAI-U2			0.734	
QAI-U3			0.670	
QAI-U4			0.731	
TI1				0.794
TI2				0.816
TI3				0.869
TI4				0.739
TI5				0.824
TI6				0.774

4.1.2 Construct Correlations

Table 2 presents the inter-construct correlation matrix. All constructs are positively and substantially correlated, providing preliminary support for the theoretical framework. The strongest association is between PA and TI (r = 0.758), consistent with the conceptual argument that technical innovation is a primary enabler of process automation capability. DT and TI demonstrate a correlation of 0.719, while QAI shows meaningful relationships with all three predictor constructs (r = 0.670–0.726). These values affirm strong positive interrelationships among the study variables.

Table 2. Inter-Construct Correlation Matrix

Construct	DT	PA	QAI	TI
DT	1.000	0.692	0.679	0.719
PA	0.692	1.000	0.670	0.758

ISSN E: 3006-1466
ISSN P: 3006-1458
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
CJSSR
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
Vol.04 No.02 (2026)

QAI	0.679	0.670	1.000	0.726
TI	0.719	0.758	0.726	1.000

4.1.3 Construct Reliability and Validity

Table 3 reports the psychometric properties of the four constructs. Cronbach's alpha values exceed the widely accepted threshold of 0.70 for all constructs: DT (α = 0.835), PA (α = 0.893), QAI (α = 0.932), and TI (α = 0.890). Composite reliability values (rho_a and rho_c) similarly surpass the 0.70 benchmark across all constructs. Average Variance Extracted (AVE) values meet or exceed the minimum criterion of 0.50 for all constructs, confirming convergent validity: DT (AVE = 0.549), PA (AVE = 0.658), QAI (AVE = 0.507), and TI (AVE = 0.646). The slight excess above threshold observed for DT and QAI, alongside their high reliability indices, further substantiates the robustness of the measurement model.

Table 3. Construct Reliability and Validity

Construct	Cronbach's α	CR (rho_a)	CR (rho_c)	AVE
DT	0.835	0.851	0.879	0.549
PA	0.893	0.901	0.920	0.658
QAI	0.932	0.935	0.941	0.507
TI	0.890	0.892	0.916	0.646

4.1.4 Discriminant Validity

Discriminant validity was assessed using the Heterotrait-Monotrait Ratio (HTMT) AND Fornell-Larcker Criterion. All pairwise HTMT values are below the conservative 0.85 threshold (Table 4), confirming that each construct is empirically distinct. The highest value, TI ↔ PA (HTMT = 0.847), approaches the conservative boundary, reflecting the theoretically close relationship between technical innovation and process automation in digital accounting environments. Nonetheless, discriminant validity is maintained across all construct pairs.

Table 4. HTMT Discriminant Validity Matrix

Construct	DT	PA	QAI	TI
DT				
PA	0.785			
QAI	0.767	0.728		
TI	0.805	0.847	0.792	

The Fornell-Larcker criterion further corroborates discriminant validity. Table 5 shows that the square root of AVE (diagonal values in bold) exceeds all off-diagonal inter-construct correlations for each construct: DT (√AVE = 0.741), PA (√AVE = 0.811), QAI (√AVE = 0.712), and TI (√AVE = 0.804). This confirms that each construct shares more variance with its own indicators than with any other construct in the model, thereby establishing the structural integrity of the four-construct research model.

Table 5. Fornell-Larcker Criterion

Construct	DT	PA	QAI	TI
DT	0.741			
PA	0.692	0.811		
QAI	0.679	0.670	0.712	
TI	0.719	0.758	0.726	0.804

4.2 R-Square and Adjusted R-square

Table 6 presents the R-square and adjusted R-square values for the two endogenous constructs. Digital Transformation (DT) achieves an R^2 of 0.568 (adjusted R^2 = 0.557), indicating that approximately 56.8% of the variance in digital transformation is explained by its predictors primarily process automation (PA) and technical innovation (TI). The proximity of the adjusted R^2 to the unadjusted value confirms the model is not over fitted. Quality of Accounting

ISSN E: 3006-1466
ISSN P: 3006-1458
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
CJSSR
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
Vol.04 No.02 (2026)

Information (QAI) attains a slightly higher R^2 of 0.591 (adjusted R^2 = 0.576), reflecting that around 59.1% of the variability in accounting information quality is accounted for by process automation maturity, technical innovation, and digital transformation itself. Both values exceed the 0.50 threshold conventionally regarded as indicative of moderate to substantial explanatory power in PLS-SEM literature, lending credence to the proposed building block model.

Table 6. R-Square Overview

Construct	R-square	R-square Adjusted
DT (Digital Transformation)	0.568	0.557
QAI (Quality of Accounting Information)	0.591	0.576

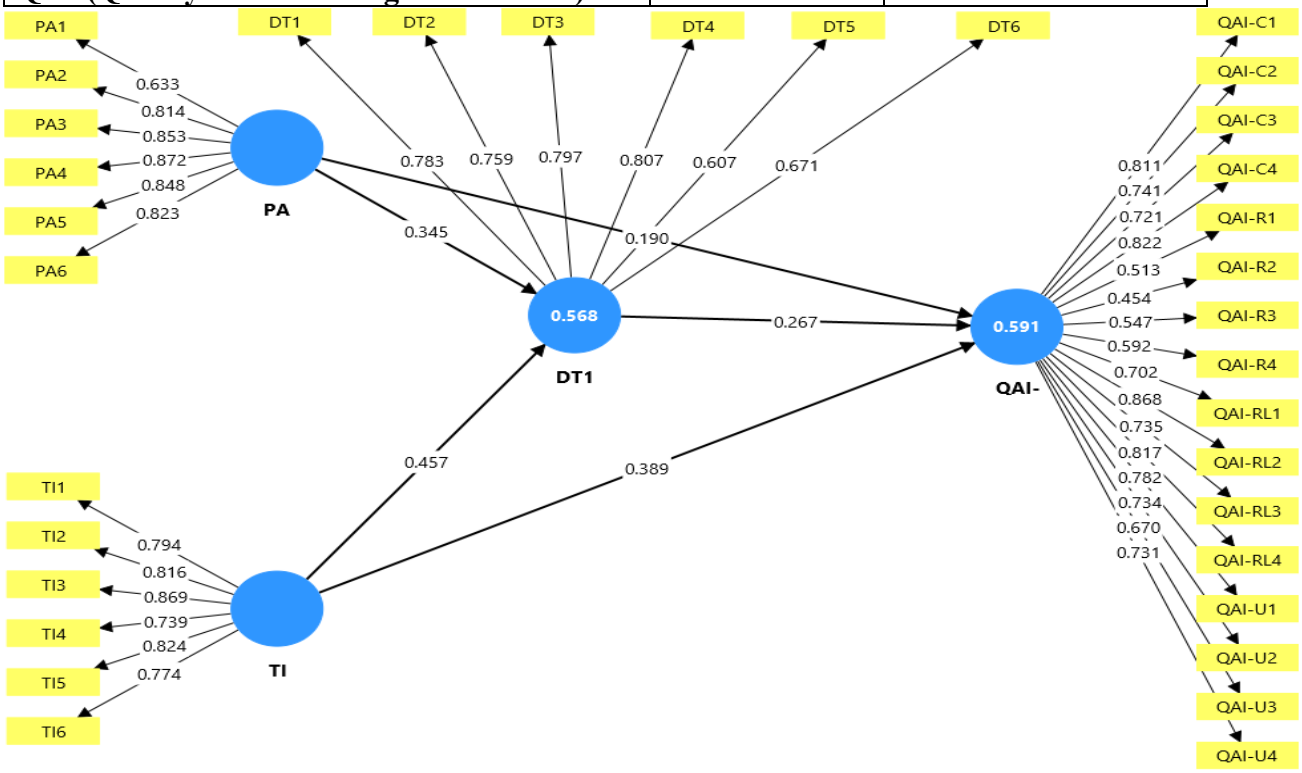

Figure 1. Structural Model – PLS-SEM Path Diagram

5. Conclusion

This research took place using a systematic literature review, case study analysis, and structural equation modeling (PLS-SEM) to track the relationships between process automation (PA), technical innovation (TI), quality of accounting information (QAI), and digital transformation (DT) in the accounting function. The central results can serve as a strong indication of how these dimensions can interplay and affect the quality of accounting information and digital transformation process of organizations. In light of the findings, a building-block model has been constructed to provide a structured approach to the integration of process automation and technical innovation along with quality control mechanisms into an overall organizational strategy.

The researchers established that the process automation has a beneficial effect on the quality of accounting information especially regarding their timeliness and accuracy. The relationship is highly important with an R^2 value of 0.591, meaning using process automation is a highly important variable that can be used in improving financial reporting. It should however be noted that these advantages can only be attained in the case where automation is aided by standardized processes and effective quality control systems. This illustrates why organizations need to adopt sound operational frameworks which would make sure that automation delivers on its promise of improving the accounting processes.

ISSN E: 3006-1466
ISSN P: 3006-1458
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
CJSSR
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
Vol.04 No.02 (2026)

Besides, the researchers also concluded that the success of the adoption of technical innovation is determined by organizational preparedness. Leadership commitment, maturity in IT governance structures and effectiveness of change management practices have pivotal roles to play to ensure that technological advancements are successfully incorporated into accounting functions. The results highlight that in order to full utilize technical innovations, organizations, need to have the required internal capacities to facilitate such changes. Leaders should exhibit a tangible dedication to technology usage and make sure that the profile of organizational culture and government structures are balanced with the goals of digital transformation.

The other significant assertion of this research is that digital transformation of accounting is not only a technical upgrade, but a strategic need as dictated by pressure on the market, regulatory needs, and operational efficiency objectives. The findings indicate that the proportion of the variance in transformation performance in the sampled organizations explained by digital transformation is 56.8. This supports the thought that the accounting functions have to be able to keep track with the business climates which are rapidly changing, in which digital tools and systems play a key role in remaining present in competitive business settings and even within regulatory frameworks. In that way, the digital transformation is to be considered as a strategic priority instead of merely technological project.

In accordance with the results, organizations aiming to improve the quality of their accounting information and achieve a digital transformation can be recommended several recommendations. To begin with, the use of process automation should be a priority by organizations since it is very crucial in enhancing timeliness and accuracy of financial information. Organizations should however not disregard the importance of process standardization and efficient quality control systems because by doing so, organizations are maximizing the benefits of automation. These must be incorporated into the overall way of operations of the entire organization so that automation deployment can run smoothly and efficiently.

Second, the approach to technical innovation should be careful with the consideration of organizational readiness. It is high time that the leadership commit, proper IT governance and effective change management is employed in ensuring the technology integration is successful. With the aim of digital transformation, organizations are encouraged to develop such capabilities by training and developing their culture as well as aligning their governance structures with the needs of digitization.

Lastly, digital transformation has been proven to be a strategic priority of organizations, so they need to consider it as a long-term priority. Digital transformation in accounting must not be a onetime activity but an on-going process that reflects the organization on the greater strategic goals. Leaders are expected to monitor the progress of the organization they lead and adjust their plans to the changing environment across various aspects such as the market, regulatory requirements, and technology.

Although this research has offered some great insights into the relationship between process automation and technical innovation, quality of accounting information and digital transformation, there are a few areas that can be filled with further research. Limitations of this study such as a relatively small numbers of case organizations and cross sectional character of data used in the study suggests that the future research should aim at testing the proposed building block model using longitudinal designs and larger data used. This would enable a greater comprehension of the causal about the constructs in the long run.

Besides, this research was concerning the accounting roles in general organizations. The study might be extended to uncover the difference in various industries since different industries could have their own challenges and opportunities when adopting digital solutions. To give an example: accounting requirements of the firms of the financial services sector might be very

ISSN E: 3006-1466
ISSN P: 3006-1458
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
CJSSR

different in comparison with those of manufacturing companies, and any understanding of these peculiarities could bring some other results to the origins of how process automation and technical innovation affect the accounting information quality in different settings.

Moreover, the research paper demonstrates the necessity to improve the measurement model of the quality of accounting information, especially on the dimension of reliability. Future studies may involve coming up with new measurement methods or movements to enhance the reliability and precision of this construct. In addition, the effects of new technologies like generative artificial intelligence (AI) on the quality of accounting information is another prospective area of study. The possibility of automating the intricate decision-making process in accounting and finance alongside improved data analytics imply a significant change in the accounting and finance landscape and makes it an opportunity of particular research.

In summarization, although there has been a lot of improvement in the integration of process automation and technical innovations into the accounting functions, there are still a number of aspects that are left to be explored as regards to the long-term effects they have on accounting information quality and digital transformation. This research and future studies should just keep expanding and building upon this research in order to gain more understanding as to how digital technologies will continue to shape the future of accounting.

References

Anjarwi, A. W. (2026). The digital transformation of tax audits: how AI, big data, blockchain, and advanced analytics are reshaping tax evasion detection. *Journal of Business Analytics*, *00*(00), 1–12. https://doi.org/10.1080/2573234X.2026.2644363

Assidi, S., Omran, M., Rana, T., & Borgi, H. (2025). The role of AI adoption in transforming the accounting profession: a diffusion of innovations theory approach. *Journal of Accounting and Organizational Change*, *21*(5), 915–936. https://doi.org/10.1108/JAOC-04-2024-0124

Bhardwaj, V., & Kumar, M. (2025). Transforming higher education with robotic process automation: enhancing efficiency, innovation, and student-centered learning. *Discover Sustainability*, *6*(1). https://doi.org/10.1007/s43621-025-01198-6

Bisht, D., Singh, R., Gehlot, A., Akram, S. V., Singh, A., Montero, E. C., Priyadarshi, N., & Twala, B. (2022). Imperative Role of Integrating Digitalization in the Firms Finance: A Technological Perspective. *Electronics (Switzerland)*, *11*(19). https://doi.org/10.3390/electronics11193252

Chen, Y., Lu, C., & Li, Z. (2024). How does digital transformation affect corporate accounting employees? *China Journal of Accounting Research*, *17*(4), 100391. https://doi.org/10.1016/j.cjar.2024.100391

Cosa, M., & Torelli, R. (2024). Digital Transformation and Flexible Performance Management: A Systematic Literature Review of the Evolution of Performance Measurement Systems. *Global Journal of Flexible Systems Management*, *25*(3), 445–466. https://doi.org/10.1007/s40171-024-00409-9

Dashkevich, N., Counsell, S., & Destefanis, G. (2024). Blockchain Financial Statements: Innovating Financial Reporting, Accounting, and Liquidity Management. *Future Internet*, *16*(7). https://doi.org/10.3390/fi16070244

Fang, Q., Yu, N., & Xu, H. (2023). Governance effects of digital transformation: from the perspective of accounting quality. *China Journal of Accounting Studies*, *11*(1), 77–107. https://doi.org/10.1080/21697213.2023.2148944

Fettahoglu, S., & Yikilmaz, I. (2025). Reframing Technostress for Organizational Resilience: The Mediating Role of Techno-Eustress in the Performance of Accounting and Financial Reporting Professionals. *Systems*, *13*(7), 1–23. https://doi.org/10.3390/systems13070550

ISSN E: 3006-1466
ISSN P: 3006-1458
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
CJSSR
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
Vol.04 No.02 (2026)

Gotthardt, M., Koivulaakso, D., Paksoy, O., Saramo, C., Martikainen, M., & Lehner, O. (2020). Current state and challenges in the implementation of smart robotic process automation in accounting and auditing. *ACRN Journal of Finance and Risk Perspectives*, *9*(1), 90–102. https://doi.org/10.35944/JOFRP.2020.9.1.007

Hamdy, A., Diab, A., & Eissa, A. M. (2025). Digital Transformation and the Quality of Accounting Information Systems in the Public Sector: Evidence from Developing Countries. *International Journal of Financial Studies*, *13*(1), 1–22. https://doi.org/10.3390/ijfs13010030

Huy, P. Q., & Phuc, V. K. (2025). Does effectiveness of digital accounting system intensify sustainable business model innovation with mediating role of digital business ecosystem? *Journal of Innovation and Entrepreneurship*, *14*(1). https://doi.org/10.1186/s13731-024-00444-x

Leitner-Hanetseder, S., Lehner, O. M., Eisl, C., & Forstenlechner, C. (2021). A profession in transition: actors, tasks and roles in AI-based accounting. *Journal of Applied Accounting Research*, *22*(3), 539–556. https://doi.org/10.1108/JAAR-10-2020-0201

Lievano-Martínez, F. A., Fernández-Ledesma, J. D., Burgos, D., Branch-Bedoya, J. W., & Jimenez-Builes, J. A. (2022). Intelligent Process Automation: An Application in Manufacturing Industry. *Sustainability (Switzerland)*, *14*(14). https://doi.org/10.3390/su14148804

Liu, J., Zhou, K., Zhang, Y., & Tang, F. (2023). The Effect of Financial Digital Transformation on Financial Performance: The Intermediary Effect of Information Symmetry and Operating Costs. *Sustainability (Switzerland)* , *15*(6). https://doi.org/10.3390/su15065059

Martínez-Peláez, R., Ochoa-Brust, A., Rivera, S., Félix, V. G., Ostos, R., Brito, H., Félix, R. A., & Mena, L. J. (2023). Role of Digital Transformation for Achieving Sustainability: Mediated Role of Stakeholders, Key Capabilities, and Technology. *Sustainability (Switzerland)*, *15*(14). https://doi.org/10.3390/su151411221

Mu, X., Chen, D., & Zhang, H. (2025). The impact of digital transformation on the sustainable development of enterprises: an analysis from the perspective of digital finance. *Journal of Applied Economics*, *28*(1). https://doi.org/10.1080/15140326.2025.2464488

Nasiri, M., Saunila, M., & Ukko, J. (2022). Digital orientation, digital maturity, and digital intensity: determinants of financial success in digital transformation settings. *International Journal of Operations and Production Management*, *42*(13), 274–298. https://doi.org/10.1108/IJOPM-09-2021-0616

Nassani, A. A., Yousaf, Z., Grigorescu, A., Oprisan, O., & Haffar, M. (2023). Accounting Information Systems as Mediator for Digital Technology and Strategic Performance Interplay. *Electronics (Switzerland)*, *12*(8). https://doi.org/10.3390/electronics12081866

Otia, J. E., & Bracci, E. (2022). Digital transformation and the public sector auditing: The SAI's perspective. *Financial Accountability and Management*, *38*(2), 252–280. https://doi.org/10.1111/faam.12317

Patrício, L., Varela, L., & Silveira, Z. (2025). Implementation of a Sustainable Framework for Process Optimization Through the Integration of Robotic Process Automation and Big Data in the Evolution of Industry 4.0. *Processes*, *13*(2). https://doi.org/10.3390/pr13020536

Ratmono, D., Frendy, & Zuhrohtun, Z. (2023). Digitalization in management accounting systems for urban SMEs in a developing country: A mediation model analysis. *Cogent Economics and Finance*, *11*(2). https://doi.org/10.1080/23322039.2023.2269773

Sampaio, C., & Silva, R. (2025). Digital Transformation in Accounting: An Assessment of Automation and AI Integration. *International Journal of Financial Studies*, *13*(4), 1–23. https://doi.org/10.3390/ijfs13040206

ISSN E: 3006-1466
ISSN P: 3006-1458
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
CJSSR

Shen, L., Zhang, X., & Liu, H. (2022). Digital technology adoption, digital dynamic capability, and digital transformation performance of textile industry: Moderating role of digital innovation orientation. *Managerial and Decision Economics*, *43*(6), 2038–2054. https://doi.org/10.1002/mde.3507

Sobczak, A. (2022). Robotic Process Automation as a Digital Transformation Tool for Increasing Organizational Resilience in Polish Enterprises. *Sustainability (Switzerland)*, *14*(3). https://doi.org/10.3390/su14031333

Teng, X., Wu, Z., & Yang, F. (2022). Research on the Relationship between Digital Transformation and Performance of SMEs. *Sustainability (Switzerland)*, *14*(10), 1–17. https://doi.org/10.3390/su14106012

Tiron-Tudor, A., Donțu, A. N., & Bresfelean, V. P. (2022). Emerging Technologies' Contribution to the Digital Transformation in Accountancy Firms. *Electronics (Switzerland)*, *11*(22), 1–19. https://doi.org/10.3390/electronics11223818

Vărzaru, A. A., & Bocean, C. G. (2024). Digital Transformation and Innovation: The Influence of Digital Technologies on Turnover from Innovation Activities and Types of Innovation. *Systems*, *12*(9). https://doi.org/10.3390/systems12090359

Vitali, S., & Giuliani, M. (2024). Emerging digital technologies and auditing firms: Opportunities and challenges. *International Journal of Accounting Information Systems*, *53*(August 2022), 100676. https://doi.org/10.1016/j.accinf.2024.100676

Xue, L., Zhang, Q., Zhang, X., & Li, C. (2022). Can Digital Transformation Promote Green Technology Innovation? *Sustainability (Switzerland)*, *14*(12). https://doi.org/10.3390/su14127497

Xue, X., Li, L., Chen, J., & Luo, T. (2025). How Does Digital Technology Innovation Quality Empower Corporate ESG Performance? The Roles of Digital Transformation and Digital Technology Diffusion. *Systems*, *13*(11). https://doi.org/10.3390/systems13110929

Zotorvie, J. S. T., Fiagborlo, J. D., & Kudo, M. B. (2025). Transforming accounting practices in small and medium-scale enterprises (SMEs): the roles and challenges of information and communication technology. *Journal of Money and Business*, *5*(1), 75–93. https://doi.org/10.1108/jmb-09-2024-0054