

-RESEARCH ARTICLE-

## THE ROLE OF DIGITAL TRANSFORMATION IN FINANCIAL REPORTING QUALITY UNDER THE TRUST SERVICES FRAMEWORK

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### —Abstract—

This study examines the impact of Digital Transformation (DT) on the Financial Reporting Quality (FRQ), taking into account the moderating role of the Trust Services Framework (TSF), in the context of rapid developments in the digital business environment and the resulting challenges and opportunities for accounting and financial systems. To achieve the study objectives, a descriptive-analytical approach was adopted, and a questionnaire was used as the primary data collection instrument. The study sample comprised 87 professionals working in accounting and financial functions. DT was measured through four dimensions: cloud computing, automation, data analytics, and systems integration. FRQ was assessed using the dimensions of accuracy and reliability, timeliness, transparency, and verifiability. The TSF was operationalized through five dimensions: security, availability, processing integrity, confidentiality, and privacy. A five-point Likert scale was employed to measure respondents' perceptions, and the data were analyzed using descriptive statistics and structural equation modelling to test the study hypotheses. The findings

indicate that DT has a statistically significant positive effect on the dimensions of the TSF; however, it does not exert a direct significant effect on FRQ. The results further reveal that availability and processing integrity have a significant positive influence on enhancing FRQ, whereas security, confidentiality, and privacy do not demonstrate a direct significant effect. The study concludes that the impact of DT on FRQ is realized indirectly through selected dimensions of the TSF, underscoring the importance of prioritizing the operational effectiveness of digital systems alongside regulatory and governance considerations.

**Keywords:** Digital transformation, financial reporting quality, Trust services framework, Cloud accounting, financial accounting.

## INTRODUCTION

Globalization refers to the crossing of goods, services, information, education and ideas across national borders. In business, it is most commonly referred to in terms of interdependent economies with free trade and free capital movements among countries with an effective mobilization of foreign resources through labor markets (Gangele & Kumar, 2025; Zia & Tabassam, 2025). The pace of globalization and technologization for the recent decades is rapidly accelerated, which imposes considerable pressure on business organizations to survive in these dynamic and competitive surroundings. Just surviving is not a prevailing strategy anymore while extended survival-relevance strongly depends on how companies adopt DT and implement it to complement performance and rigidify competences, both at the strategic and tactical levels (Kraus et al., 2021). Under those conditions, one of the most trendy and discussed concepts in management and information systems literature has been DT during last years (Elia et al., 2024; Fernandez-Vidal et al., 2022). DT is widely regarded as multi-faceted phenomenon with complexity that encompasses more than just technological implementation, including dramatic organizational change, new business models, corporate cultural transformation and re-orientation towards stakeholders and customer (Tasoulis et al., 2024). It represents a strategic response to the rapid and far-reaching changes experienced by industries and societies as a result of the widespread diffusion of digital technologies. Digital business transformation is considered one of the most prominent manifestations of this broader shift, as it fundamentally reshapes how organizations conduct their activities by reducing traditional barriers between individuals, institutions, and technologies (Hanelt et al., 2021). This transformation has enabled organizations to develop innovative products and services, improve operational efficiency, and create more effective mechanisms for value creation and delivery (Gouveia et al., 2024). These changes share several common characteristics, including the redesign of business processes and models, workforce empowerment, enhanced innovation capacity, and the personalization of customer experiences. Achieving such outcomes

requires the adoption of integrated, outcome-oriented digital platforms supported by advanced technological infrastructure (Li et al., 2022).

Despite its rapid growth and widespread diffusion across various sectors, DT is accompanied by a range of challenges and constraints that may hinder its effective implementation (Stefanescu, 2025). These challenges include internal factors such as the absence of clearly defined DT strategies, misalignment within organizational structures and cultures, difficulties in measuring return on investment, and concerns regarding the potential disruption of existing business models (Leso et al., 2023). In addition, organizations face external challenges related to shortages of digital skills, inadequate technological infrastructure, weaknesses in regulatory and legislative frameworks, and limited access to financial resources, particularly among small and medium-sized enterprises (James, 2021). In light of these challenges, DT has become closely associated with broader economic and social development, as it represents a key dimension of contemporary social change (Hilbert, 2020). Consequently, there has been growing academic interest in examining its implications, benefits, and limitations for organizational practices and work environments, with particular emphasis on identifying the conditions required to achieve successful and sustainable DT. A review of the literature reveals considerable variation in how DT is conceptualized and operationalized, reflecting differences in theoretical perspectives and research contexts. In several studies, DT is viewed as a new developmental paradigm that necessitates redefining relationships between organizations, stakeholders, and customers, as well as re-evaluating traditional approaches to service and product delivery (Zaoui & Souissi, 2020).

This led to a comprehensive set of steps for businesses using the above form and digital transformation roadmap. This well-defined approach guides companies in a changing world. These existing gaps have been partly filled in the literature by focusing on dimensions, prerequisites and challenges. But cash-starved firms fear the degree to which pressure or incentives are necessary on this front. Some say that just mentioning a strategy goal is enough; others want unequivocal operational guidelines. Those focused on capturing digital transformation opportunities and responding—and being able to remain agile and resilient in a constantly evolving digital environment—are struggling. The financial reporting in the business world has changed dramatically with corporate scandals, increased demands for accountability and transparency. As the age-old pad-and-paper transaction record thingy, financial reporting has evolved into a strategic communication mechanism that captures what both sides of the endless debate have to say about how everything pans out. Therefore, the modus of operation of Western corporate management today has given the birth to a model which has surpassed existing departmental financial management operating models and is sliding towards hyper-financial-trends. These changes have shifted the stakes of interest for these stakeholders, while also broadening thought on a secular and macroeconomic plane. The human predicament in accounting is brought

into public discourse where it engages with the public to challenge and reformulate professional accounting at an ethical and social level (Abass et al., 2023).

Moreover, digital business capability has become a critical determinant of organizational competitiveness in an environment characterized by rapid technological change, intensified competition, and an increasing need for continuous innovation. This evolution has reshaped accounting practices and financial reporting processes, as digital technologies have contributed to improving the quality, efficiency, and timeliness of financial reports. In addition, DT initiatives within listed companies have enhanced the reliability and relevance of financial information, thereby supporting more effective economic decision-making (Phornlaphatrachakorn & Na Kalasindhu, 2021).

The timeliness of audit report issuance also represents a central aspect of effective financial reporting, given its direct impact on stakeholder confidence and the usefulness of financial information. Delays in audit reporting may create uncertainty and undermine organizational credibility, whereas robust governance mechanisms and sound regulatory frameworks can help mitigate such delays. In this regard, financial performance, corporate governance mechanisms, and audit quality have been identified as key determinants of audit report timeliness, underscoring the importance of integrating DT initiatives with effective financial reporting practices to achieve transparency and long-term sustainability (Din et al., 2022; Taqi et al., 2026).

Both the COBIT 2019 framework and the TSF emphasize organizational culture and ethical values as critical enablers of effective information security. To establish a strong security-aware culture in which employees adhere to organizational policies, top management must not only communicate information security requirements but also demonstrate commitment through leadership by example (Amankwa et al., 2022). The COBIT framework highlights that auditors increasingly operate in highly automated environments, and it was originally developed to guide information technology auditing through a comprehensive set of control objectives related to IT processes (Almusawi, 2021). In turn, the TSF complements digital trust by promoting an appropriate balance between security, usability, and ethical compliance within digital systems (Anomah et al., 2021; Hussein et al., 2024).

Despite the growing relevance of the TSF, there remains a lack of comprehensive empirical research that examines its integrated role in enhancing the quality and reliability of financial reporting within DT environments. This gap persists despite the increasing importance of the framework in supporting trust, security, and the integrity of financial information in the digital era. Accordingly, the present study seeks to address this gap by proposing a research model that links the TSF with FRQ in the context of DT. In doing so, the study aims to contribute to the accounting literature

and provide practical insights that may support decision-makers and regulatory authorities.

## LITERATURE REVIEW

Recent studies have increasingly focused on examining the role of DT in reshaping accounting practices, financial reporting processes, and stakeholder trust. A growing body of literature suggests that the adoption of digital technologies has significant implications for the accuracy, timeliness, transparency, and reliability of financial information, while also introducing new challenges related to governance, security, and regulatory compliance. [Ajiga and Anfo \(2021\)](#) investigated the role of AI in improving financial reporting accuracy and restoring public trust in financial reporting within financial institutions. Using a descriptive–analytical approach based on a systematic review of the literature, the study analyzed 74 peer-reviewed articles selected from 228 publications issued between 2013 and 2024. The results demonstrated that artificial intelligence applications, including machine learning, natural language processing, and anomaly detection, significantly enhance the accuracy of financial reporting, reduce human error, and strengthen transparency and auditability. These improvements contribute to restoring investor and stakeholder confidence, while also underscoring the importance of ethical governance and regulatory compliance to ensure the responsible use of artificial intelligence technologies.

[Manser Payne et al. \(2021\)](#) examined the role of artificial intelligence–enabled digital sterilization in value creation, trust development, and organizational performance within financial service ecosystems. The study adopted a conceptual approach based on an extensive analytical review of prior literature on DT, service-dominant logic, and artificial intelligence as a disruptive innovation, without relying on empirical data from a specific organizational sample. The findings indicated that integrating artificial intelligence technologies into digital service systems enhances service quality, strengthens trust, increases customer engagement, and improves organizational performance. The study also emphasized that data security, privacy, system reliability, and information quality are critical success factors for DT in the financial sector, and it called for future research frameworks to assess the impact of artificial intelligence on value creation and trust in digital environments.

[Abdulquadri et al. \(2021\)](#) investigated the impact of adopting DT technologies on financial service delivery and financial inclusion in Nigerian commercial banks. Using a qualitative research design, the study analyzed 16 chatbots deployed by 13 out of 22 commercial banks operating in Nigeria during 2020. The findings indicated that the majority of Nigerian banks adopted chatbots as a DT tool, which contributed to improving customer interaction and enhancing financial inclusion. However, the study also revealed limitations related to restricted chatbot responsiveness beyond

predefined interaction paths, weak security verification mechanisms, and the absence of support for local languages. These limitations raise concerns regarding data security, privacy, and the reliability of digital systems, underscoring the need for further development of such technologies to strengthen trust and improve the quality of digital financial services.

[Miaoquan et al. \(2023\)](#) analyzed the effect of DT on financial reporting and financial analysis by employing questionnaires and interviews with accounting professionals, financial managers, and industry experts from several companies and accounting firms. The findings indicated that DT, particularly through the adoption of cloud computing, data analytics, automation, and systems integration, has a positive effect on improving the timeliness, quality, and accuracy of financial reports. Moreover, digital technologies were found to enhance the efficiency of financial analysis and support managerial decision-making. Nevertheless, the study highlighted persistent challenges related to data security, privacy concerns, and the need to upgrade employees' digital skills to meet the demands of the evolving digital environment.

[Celestin and Mishra \(2025\)](#) examined the impact of DT in financial disclosure through emerging technologies on corporate transparency and investor trust in multinational corporations. Adopting quantitative research design, the study utilized secondary data derived from published financial reports, regulatory disclosures, and industry analyses. The sample included 120 multinational companies and 30 regulatory bodies across North America, Europe, and Asia over the period 2020–2024. The findings revealed a strong positive relationship between the adoption of DT technologies—such as blockchain, artificial intelligence, and big data analytics—and investor trust. Specifically, blockchain technology was found to reduce instances of financial misstatement, while AI significantly improved the efficiency of financial reporting processes. In addition, the use of big data analytics contributed to higher levels of investor confidence, despite ongoing challenges associated with cybersecurity risks and regulatory inconsistencies.

[Aboelfotoh et al. \(2025\)](#) explored the effects of DT technologies, including artificial intelligence, blockchain, and big dataset analytics, on financial reporting, transparency, and accountability in public sector organizations. The study employed a mixed-methods approach, combining quantitative regression analysis with qualitative case studies drawn from various government institutions. The results indicated that blockchain technology exerted the strongest influence on enhancing transparency, whereas artificial intelligence played a critical role in improving accountability through compliance monitoring and fraud detection. Big data analytics were also found to improve the efficiency of financial operations and resource allocation. Furthermore, organizational readiness for change and regulatory alignment were identified as moderating factors that strengthen the impact of DT on FRQ and public trust.

Alonge et al. (2024) investigated the effect of DT on financial reporting and accountability in emerging markets through a descriptive–analytical review of relevant literature and applied studies. The analysis focused on modern digital technologies, including cloud computing, artificial intelligence, and blockchain, without relying on a specific quantitative sample of organizations. The findings indicated that DT significantly improves the accuracy and FRQ, enhances transparency, and strengthens accountability mechanisms and compliance with international financial reporting standards. Additionally, DT was found to increase stakeholder and investor trust by reducing the risks of financial manipulation and fraud. However, the study also identified challenges that may limit effective implementation, such as inadequate digital infrastructure, limited digital literacy, and variations in regulatory frameworks across emerging markets.

Chepkorir and Kariuki (2024) examined the impact of DT on FRQ within the Nairobi City County Government in Kenya. The study relied on primary data collected through structured questionnaires administered to 105 employees working in finance and economic planning departments during 2024. The findings revealed that DT technologies—namely big data analytics, blockchain, cloud computing, and robotic process automation—have a positive and statistically significant effect on FRQ. Cloud computing demonstrated the strongest impact, followed by robotic process automation, blockchain, and big data analytics. The results further indicated that innovation adoption readiness plays a statistically significant moderating role in the relationship between DT and FRQ; however, this effect was relatively negative, suggesting that insufficient organizational readiness may constrain the potential benefits of DT.

Al-Okaily et al. (2025) analyzed the determinants of user satisfaction with financial information systems under DT in the public sector, with a particular focus on Jordan as an emerging market. Employing a quantitative research approach, the study collected primary data through a questionnaire distributed to users of the government financial management information system. The sample consisted of 104 respondents from various Jordanian government entities during 2023. The results showed that information quality, system quality, service quality, training quality, and perceived usefulness all have a positive and statistically significant effect on user satisfaction. Among these factors, training quality and perceived usefulness emerged as the most influential, highlighting the importance of human capital development and robust technical infrastructure in maximizing the benefits of financial information systems within DT environments.

Overall, the reviewed literature demonstrates that DT plays a significant role in enhancing FRQ, transparency, accountability, and stakeholder trust across both private and public sector contexts. However, the findings also reveal inconsistencies regarding the mechanisms through which DT influences financial reporting outcomes,

particularly with respect to governance, operational effectiveness, and trust-related frameworks. This highlights the need for further empirical research that examines the integrated role of the TSF in mediating the relationship between DT and FRQ, which the present study seeks to address. Based on previous studies, we hypothesize the following:

**H1:** *There is a significant impact of DT on the FRQ.*

**H2:** *There is a significant impact of DT on Dimensions of the TSF.*

**H3:** *There is a significant impact of the TSF on the FRQ.*

**H4:** *The TSF mediates the significant impact of DT on the FRQ.*

## METHODOLOGY

Underpinned by the theoretical links proposed in this current research, which highlighted the impact of digital transformation on financial reporting quality through intermediary variables as represented by the Trust Services Framework, the research methodology employed was descriptive-analytical in nature. This type of methodology was considered appropriate as it would enable a precise and comprehensive analysis of the various interrelations between the variables under consideration. The reason behind choosing this type of research methodology was the intention of clarifying the operational mechanisms through which investments in technologies lead to a tangible enhancement in financial reporting quality, especially in the context of the Iraqi government, which is presently witnessing a rapid pace of digital transformation, coupled with issues of information transparency and reliability.

For data collection, a primary data collection instrument in the form of a purposefully designed questionnaire was employed. The questionnaire was developed after a thorough review of previous literature, and its face and construct validity was confirmed before administration. The target population of 87 accountants and auditors of various government institutions in Iraq was purposively selected, ensuring a wide representation of different categories of academic qualifications and years of experience. The participants' perceptions were collected using a five-point Likert Scale, which allows for the differentiation of the participants' assessments of the dimensions of digital transformation, financial reporting quality, and the five dimensions of the Trust Services Framework.

As a method for analyzing the collected data, Structural Equation Modeling (SEM) was used, particularly for its advanced capability to test direct and indirect relationships between variables and to assess the goodness of fit of the proposed model. Before proceeding to SEM, descriptive statistics were used to summarize the distribution of the responses and sample characteristics, and to test assumptions for the application of more complex statistical techniques, such as normality and correlations between variables. The methodology closes the existing research gap in terms of the mediating effect of the Trust Services Framework, allowing for the

testing of hypotheses and not just associations.

## Sample

The study sample comprised 87 accountants and auditors employed in Iraqi government entities. The demographic analysis indicated that the majority of respondents were male, with 63 participants representing 72.41% of the sample, while female participants numbered 24, accounting for 27.59%. This distribution reflects a predominance of male respondents within the study sample. With respect to educational qualifications, more than half of the respondents held a bachelor's degree, with 45 participants representing 51.72% of the sample. This was followed by holders of doctoral degrees, numbering 24 participants (27.59%), and master's degree holders, numbering 17 participants (19.54%). Diploma holders were minimally represented, with only one respondent accounting for 1.15% of the sample. Regarding professional experience, the results showed that the largest proportion of respondents had 15 years of experience or more, comprising 37 participants (42.53%). This was followed by those with 10 to less than 15 years of experience, numbering 21 participants (24.14%). Respondents with less than 5 years of experience accounted for 18 participants (20.69%), while those with 5 to less than 10 years of experience formed the smallest group, with 11 participants (12.64%). Overall, these findings indicate that the study sample possesses relatively high levels of professional experience, which enhances the credibility and reliability of the study results. [Table 1.](#) presents the demographic characteristics of the sample.

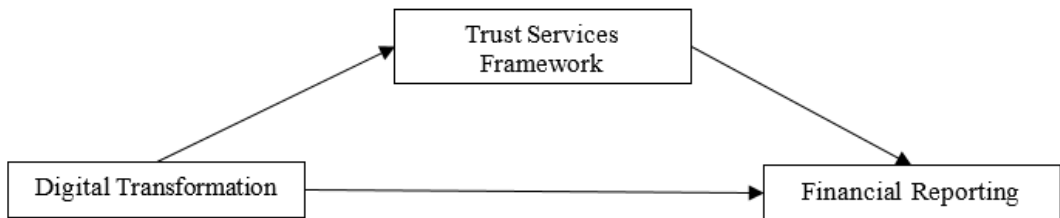
**Table 1: Studying Sample Demographic Characteristics**

Variable	Category	Frequency	Percentage
Sex	M	63	72%
	F	24	28%
Qualification of education	BSc	45	52%
	PhD	24	28%
	MSc	17	20%
	Diploma	1	1%
Years of Experience	5 years and less	18	21%
	5 years and less than 10	11	13%
	10 years and less than 15	21	24%
	More or equally 15 years	37	43%

## Measurement of Variables

The study employed a structured questionnaire as the primary instrument for data collection. The questionnaire was developed based on an extensive review of relevant literature and previous empirical studies related to DT, FRQ, and the TSF. Respondents' perceptions were measured using a five-point Likert scale, ranging from "strongly agree" to "strongly disagree", to assess the degree of agreement with each

statement. The study variables were categorized into three main groups. DT was treated as the independent variable and was measured through four dimensions: cloud computing, automation, data analytics, and systems integration. FRQ was considered the dependent variable and was assessed using three dimensions: accuracy and reliability, timeliness, and transparency and verifiability. The TSF was treated as the moderating variable and was measured through five dimensions: security, availability, processing integrity, confidentiality, and privacy. Each dimension was represented by a set of measurement items designed to capture its underlying construct accurately. For the purpose of statistical analysis, respondents' responses were numerically coded to allow for the calculation of descriptive statistics, standard deviations, and hypothesis testing. This approach ensured a high level of objectivity and precision in measuring the study variables. Figure 1. illustrates the proposed research model and the hypothesised relationships between the study variables.



**Figure 1:** The research model

### **The Institutional and Organizational Context of Digital Transformation in the Iraqi Public Sector**

To comprehend the study results, it is important to grasp the organizational environment in which digital transformation processes occur in Iraqi government institutions. Although there has been significant progress in the adoption of some digital technologies over the last decade, the Iraqi public sector's accounting system continues to face structural challenges that directly affect the manner in which digital investments result in improved financial report quality. The current state of the accounting process in many Iraqi ministries and departments indicates that the information system is fragmented, with financial data being processed using separate and non-integrated applications.

Moreover, there are technological infrastructure challenges, such as the lack of stability in the operation of the system during peak periods such as monthly account closings or the preparation of annual reports. The occurrence of system outages or slow response times during such critical periods affects the “availability” dimension, which the study indicates is an important factor in the quality of financial reports. The lack of standardized data processing among departments also results in inconsistencies in the accuracy of the accounting entries, which directly relates to the “process integrity” dimension, which has been shown to have a significant effect on improving the quality of financial reports.

In terms of organizational structure, the decision-making process in Iraqi government institutions lacks the integration of technical and financial departments. In digital transformation initiatives, IT departments usually handle the digital transformation process without the active involvement of accountants who would be using the technology. This has been one of the reasons why digital transformation has not directly improved the quality of financial reports. This is because technologies used, no matter how advanced they are, would not be effective in achieving the desired goal if they have not been designed to address the actual needs of accountants and auditors. For example, the use of advanced technology such as cloud technology would not be effective in improving the quality of final outputs if it has not been designed to address the particularities of the Iraqi accounting cycle.

Another important dimension of digital transformation in the Iraqi context is the human resource dimension. Based on the study's sampling, the level of academic qualification of accountants in Iraq is relatively high, where more than half of accountants have acquired advanced degrees. However, the lack of digital operation skills remains a major problem in the Iraqi context. Many qualified accountants would find it hard to navigate the complex interface of digital systems and to interpret the results of data analytics tools used in the digital transformation process. This has been one of the problems of digital transformation in the Iraqi context due to the lack of training programs designed to address the operation of digital transformation in the field of accounting.

The Iraqi context also presents a rather complex system of financial regulations, with the Central Auditing Bureau, Integrity Commission, and Central Organization for Standardization playing important roles in the system. At the same time, these institutions heavily depend on traditional methods of financial report analysis and have not developed their own standards of auditing financial reports in the context of the digital environment. The absence of explicit standards regarding the evaluation of system availability and data processing integrity makes it difficult to establish the relationship between investment in technology and performance indicators related to financial report quality. The aforementioned characteristics of the Iraqi context—fragmented infrastructure, weak organizational integration, lack of appropriate operational skills, and absence of digital financial regulations—can be considered an appropriate framework for explaining the results obtained in the study. These characteristics also suggest that the relationship between the effectiveness of the trust services framework and financial report quality in the Iraqi context is established through the availability and processing integrity dimensions but not through the security and confidentiality dimensions. At the same time, the results obtained in the study suggest that the successful implementation of digital transformation in the Iraqi context is not only related to the acquisition of appropriate technologies but also to the overcoming of the barriers that prevent the translation of technical capabilities into tangible results in the context of financial report quality, which is considered a crucial

factor in the current efforts of the Iraqi government to increase financial transparency and attract investments in the economy.

## RESULTS

### Descriptive Statistics

Table 2. presents the results of the descriptive statistical analysis for the main study variables, namely DT, FRQ, and the TSF. The analysis reports the mean, median, standard deviation, skewness, and kurtosis values, providing an initial overview of respondents' perceptions, the degree of data dispersion, and the suitability of the data for subsequent statistical analyses.

**Table 2: Main study variables (descriptive statistics)**

Measure	DT	FRQ	TSF
Mean	3.55	3.57	3.83
Median	3.50	3.50	4.00
Std. Deviation	0.82	0.70	0.68
Skewness	-0.578	-0.069	-0.304
Skewness Std. Error	0.258	0.258	0.258
Kurtosis	-0.020	0.106	0.248
Kurtosis Std. Error	0.5	0.5	0.5
Minimum	1	1	2
Maximum	5	5	5

We indicate from results that the mean values of the study variables are relatively high, reflecting a satisfactory level of agreement among respondents regarding the extent of DT, the FRQ, and the application of the TSF. Among the three variables, the TSF recorded the highest perceived level. The median values were closely aligned with the means, suggesting a balanced distribution of responses. In addition, the standard deviation values indicate a moderate level of variability, reflecting a reasonable degree of data homogeneity. The skewness and kurtosis values were close to zero, indicating that the data approximate a normal distribution and are suitable for further inferential statistical analysis.

### Testing the Relationships between Variables

#### Direct Effects

Table 3. presents the results of the direct path analysis examining the relationships between DT, the dimensions of the TSF, and FRQ.

**Table 3: Direct Path Effects.**

Path	T Statistics	P Values
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DT → Availability	12.496	0.000
DT → Confidentiality	5.836	0.000
DT → FRQ	0.696	0.487
DT → Privacy	3.907	0.000
DT → Processing Integrity	9.633	0.000
DT → Security	5.104	0.000
Availability → FRQ	2.145	0.032
Confidentiality → FRQ	0.189	0.850
Privacy → FRQ	0.695	0.488
Processing Integrity → FRQ	2.734	0.006
Security → FRQ	0.422	0.673

The findings demonstrate that DT has a statistically significant positive effect on several dimensions of the TSF, including availability, confidentiality, privacy, processing integrity, and security. This suggests that the adoption of digital technologies contributes to strengthening technical and organizational controls related to data availability, protection, and processing accuracy. However, DT does not exhibit a statistically significant direct effect on FRQ, indicating that its influence is not immediate but rather operates through intermediary mechanisms. Further analysis reveals that availability and processing integrity have a statistically significant positive effect on FRQ. This finding suggests that ensuring continuous system availability and maintaining accurate and complete data processing are critical factors in enhancing the reliability and FRQ. In contrast, confidentiality, privacy, and security do not show a direct significant effect on FRQ, despite their importance from a regulatory and governance perspective. These results imply that DT influences FRQ indirectly through selected operational dimensions of the TSF.

### Indirect Effects

Table 4. presents the results of the indirect effect analysis, examining the mediating role of the TSF dimensions in the relationship between DT and FRQ.

**Table 4: Indirect Effects of the TSF.**

Path	T Statistics	P Values
DT → Availability → FRQ	1.995	0.047
DT → Confidentiality → FRQ	0.158	0.874
DT → Privacy → FRQ	0.631	0.528
DT → Processing Integrity → FRQ	2.378	0.018
DT → Security → FRQ	0.396	0.692

The results indicate that availability (DT → Availability → FRQ) plays a statistically significant mediating role in the relationship between DT and FRQ (T = 1.995, P = 0.047). This suggests that improving system accessibility and ensuring timely access to financial information enhance the FRQ. Processing integrity (DT → Processing Integrity → FRQ) also demonstrates a statistically significant positive mediating

effect ( $T = 2.378$ ,  $P = 0.018$ ), highlighting the importance of accurate, complete, and reliable data processing in improving FRQ.

In contrast, confidentiality, privacy, and security do not exhibit statistically significant mediating effects. This finding suggests that, although these dimensions represent essential baseline requirements within digital environments, they do not, on their own, translate into observable improvements in FRQ unless they are supported by effective operational practices. Figure 2. presents the structural equation modelling results, illustrating the path coefficients and statistical significance levels for each relationship. The model confirms that DT significantly influences several dimensions of the TSF, while availability and processing integrity exert a direct and significant effect on FRQ. The direct path between DT and FRQ is not statistically significant, reinforcing the conclusion that the impact of DT is primarily indirect.

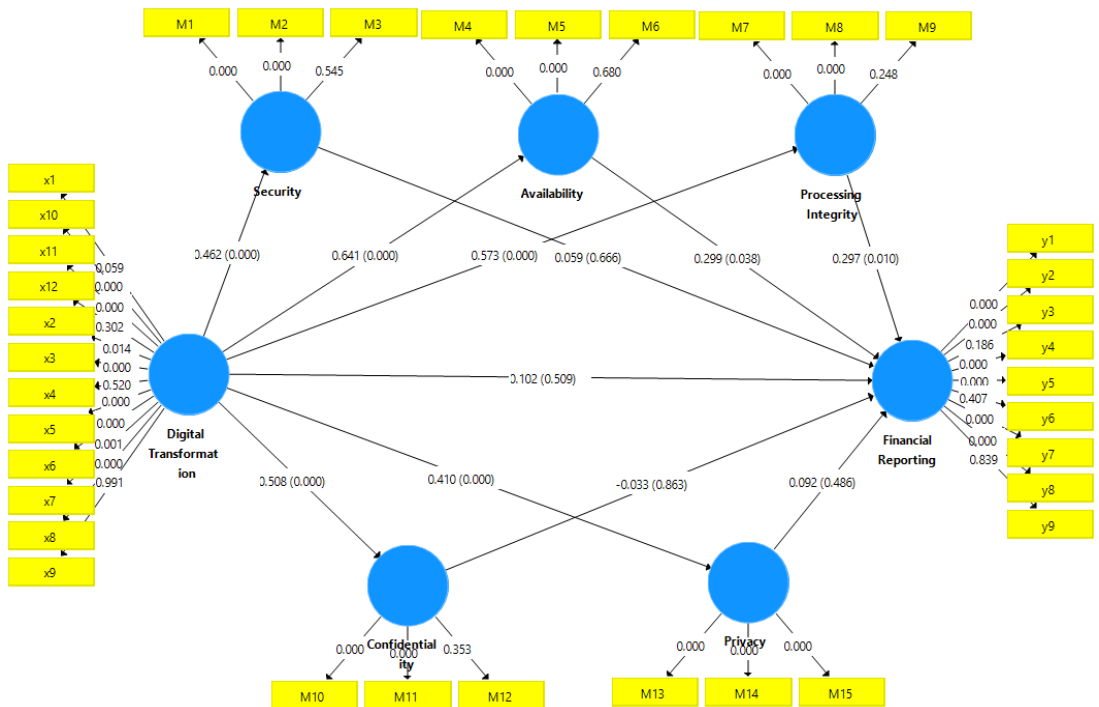


Figure 2: Structural equation modelling

## DISCUSSION

The results of the study demonstrate a complex association between digital transformation and the quality of financial reporting, which does not support the assumption of a direct and linear association between the adoption of digital technologies and the quality of financial reporting. Although digital transformation has a positive impact on the development of the trust services framework, particularly with regard to the “availability” and “processing integrity” dimensions, the absence of

a direct and significant impact on financial reporting quality indicates that the impact of digital transformation on the quality of financial reporting does not occur on its own but rather through intermediary mechanisms of operation that transform the potential of digital technologies into tangible results in the process of preparing, auditing, and disclosing financial reporting.

The key mediating impact of the “availability” and “processing integrity” dimensions of the trust services framework can be explained by the direct association of these two dimensions with the essential daily accounting process. Ensuring access to financial reporting and processing this reporting without distortion or loss of accuracy are the essential bases for the quality of final reporting. This finding is in line with the results of other research, such as (Miaoquan et al., 2023), which demonstrated that the speed of digital reporting enhances the accuracy of reporting; however, this accuracy does not occur without the maintenance of workflow integrity. With regard to other dimensions of the trust services framework, such as security, confidentiality, and privacy, the absence of a direct and mediated impact does not deny the importance of these factors but rather indicates that these factors are “table stakes” in the digital world; that is, they are not recognized by stakeholders as distinctive features of digital reporting, provided that they are available to some extent. Their importance becomes evident only in the event of failure, which indicates that their absence creates a risk rather than a positive impact on financial reporting quality.

Theoretically, the current research contributes to the body of knowledge on the management of digital transformation in accounting by revealing that the difference between technological investment and operational results is not bridged solely by investing in technological infrastructure. Instead, it is bridged by designing appropriate operational processes that guarantee the transformation of technological capabilities into value. This is in accordance with the perspective of (Hanelt et al., 2021), who state that digital transformation is a multidimensional organizational phenomenon that involves the restructuring of processes and corporate culture, and is not merely a question of substituting traditional systems with digital ones.

From a practical point of view, the current study is useful for decision-makers in the public or private sectors who are responsible for managing digital transformation. Instead of solely investing in acquiring advanced technological solutions, decision-makers are advised to focus on the stability and continuous availability of the system, and on designing appropriate operational controls that guarantee the integrity of the data processing cycle from the initial entry of the data up to the issuance of the final financial report. The current findings also have implications for regulatory bodies and the accounting profession, revealing the need for designing appropriate auditing standards that take into account the appropriateness of the operational dimensions of the trust services framework, rather than solely its formal security controls.

However, the study has some limitations. For instance, the fact that the sample includes accounting and auditing staff from the Iraqi government might limit the extent to which the findings are generalized to the private sector. In addition, the use of perceived data, although appropriate for the context of the study, does not provide a substitute for the use of objective data, for instance, the rate of correcting errors and the rate of issuance of financial reports following the implementation of digital systems.

In terms of suggestions for further study, comparative studies in different sectors and countries are proposed to test the stability of the established relationships. The combined application of quantitative and qualitative methods would facilitate a more profound understanding of the regulatory environment that affects the strength of the trust services framework as an intermediary. Further mediating variables, such as organizational change readiness and the efficiency of digital human capital, may be explored to account for the differences in the success of translating digital investment into tangible improvements in financial reporting quality.

## **CONCLUSION**

Based on the results of the path analysis, this study concludes that DT exerts an indirect effect on FRQ through selected dimensions of the TSF. The findings demonstrate that availability and processing integrity play a significant role in enhancing FRQ, indicating that the success of DT initiatives depends not solely on the adoption of advanced digital technologies, but also on ensuring continuous system availability, ease of access, and accurate, complete, and reliable processing of financial data. In contrast, the results do not reveal a statistically significant effect for security, confidentiality, or privacy in the relationship between DT and FRQ. This outcome may be explained by the fact that these dimensions represent fundamental and assumed requirements within digital work environments and, when considered in isolation, do not lead to noticeable improvements in FRQ from the perspective of practitioners. Their contribution to reporting quality becomes more meaningful only when they are supported by effective operational mechanisms that directly influence the preparation and delivery of financial reports. Accordingly, the study confirms that the impact of DT on FRQ is realized primarily through operationally oriented dimensions of the TSF rather than through direct technological adoption. The moderating role of the TSF varies across its dimensions, with availability and processing integrity emerging as the most influential factors in strengthening FRQ in digitally transformed environments. These findings highlight the importance of directing organizational attention towards the functional and operational performance of digital systems, alongside regulatory and governance considerations, in order to achieve effective, sustainable, and trust-enhancing DT outcomes.

## **IMPLICATIONS FOR PRACTICE, POLICIES, AND FUTURE TRENDS**

In this regard, the findings of the present study emphasize the necessity of taking a practical and operational approach while implementing digital transformation strategies in government entities. It is not enough to rely on the adoption of advanced digital technologies to improve the quality of financial reports; rather, it is important to have concrete assurances related to the availability of the system and the accuracy of data processing. In the Iraqi context, where the stability of the technological infrastructure is subject to recurring problems, the dimension of availability emerges as a vital factor. In other words, the occurrence of system outages during financial closing periods or during the preparation of periodic reports would lead to a delay in the issuance of financial reports and would consequently lead to a greater likelihood of human error due to the adoption of temporary and makeshift solutions to overcome the problem of system failure. In this regard, a considerable portion of the budget of digital transformation strategies should be devoted to the improvement of the reliability of the infrastructure by the adoption of real-time backup systems and the implementation of monitoring systems for server performance and the occurrence of system failures, rather than focusing solely on the adoption of advanced technologies.

The dimension of processing integrity is of critical importance because it involves the very heart of the daily accounting process. The accuracy of the financial data entry and the avoidance of distortion during the summarization and processing steps represent the very basis of the quality of the final report. Moreover, the design of the digital systems used has to ensure that there is no loss, duplication, or corruption of the data during transfer between different applications, which is a common phenomenon in the Iraqi context because of the fragmentation of the information systems, representing a more impactful investment in improving the quality of the financial reporting, compared to the enhancement of security features. Security, confidentiality, and privacy represent organizational needs, but in the digital context, they are taken for granted and are not considered critical factors, as long as they are at an acceptable level. They are considered critical factors only in cases of failure, and their absence is then considered a source of risk rather than a source of quality.

At the policy level, there is an imperative need to update the internal and external audit standards, incorporating tangible operational performance indicators of the effectiveness of availability and integrity, rather than focusing on the presence of security features. The audit standards currently used ignore the presence of critical indicators such as the average system downtime during the financial closing period, the rates of errors corrected during the entry of financial data, or the integrity of the data between different systems. Developing audit supplements specific to the Iraqi digital context, incorporating quantifiable indicators of system availability during critical periods or the number of incidents of data corruption, would not only improve the quality of financial reporting but also increase the level of trust of local and foreign investors regarding the transparency of the financial reporting of the public sector, which is critical for investment attraction in the reconstruction context.

In the area of human resources, the gap does not exist in terms of academic qualifications, which the study sample suggests to be at a high level, but rather in the area of digital skills that connect the theoretical foundations of technology with its practical applications in the daily working environment. Many experienced accountants, for instance, may fail to efficiently interact with the complex interfaces of digital systems or to understand the results provided by the analytical reports generated by the applications of data analytics technology, thus hindering the full utilization of the opportunities provided by these technologies. As a result, training programs that address the area of digital skills in the context of digital transformation in accounting, such as the management of digital workflows, the identification of errors in automated processes, and the utilization of tools that monitor the performance of digital systems in real time, are necessary instead of training on general technical skills.

Regarding the recommendations for further research, it is recommended that comparative studies with private sector institutions in Iraq be conducted in order to verify the existence and strength of the aforementioned relationships, especially the absence of the direct effect of digital transformation on the quality of financial reporting. Additionally, the implementation of hybrid methodologies that combine the use of quantitative methods to measure the quality of financial reporting (for example, the analysis of the rates of correction of financial statement errors prior to and after digital transformation) with the use of in-depth interviews with financial systems managers would provide valuable insights regarding the regulatory environment that influences the effectiveness of the dimensions of the Trust Services Framework. Finally, the context of the Iraqi case, with the difficulties related to digital transformation and the weaknesses in certain aspects of the regulatory environment, provides an opportunity to investigate the role of other mediating factors, such as organizational change readiness or the level of support from the organization's top management, which could influence the effectiveness of the translation of digital transformation investments into the enhancement of the quality of financial reporting.

In conclusion, the current study emphasizes the importance of the proper understanding and implementation of digital transformation strategies and practices, not as an end in itself, but rather as a tool to improve the organization's performance and reach even greater goals, such as the quality of financial reporting, and not only the level of digital transformation per se. This requires a shift in the perspective and the culture of Iraqi institutions, both in the private and the public sectors, from a 'procurement technology' logic to an 'operational engineering' logic, in which digital systems are designed to meet the requirements of the organization's operations and not only to demonstrate the organization's technological capabilities and competitiveness in the digital economy.

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