

THE IMPACT OF DIGITAL TRANSFORMATION ON FINANCIAL REPORTING AND FINANCIAL PERFORMANCE IN THE PUBLIC SECTOR: A FIELD STUDY IN THE GENERAL COMMISSION FOR CUSTOMS IN IRAQ

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Abstract

In the realm of tax and customs systems, digital transformation has emerged as a pivotal step towards enhancing operational efficiency and performance. By leveraging digital technologies, government bodies can achieve financial and economic objectives while actively contributing to development goals. This study investigates the impact of digital transformation on financial reporting and financial performance in the Iraqi government sector, with a specific focus on the Iraqi General Authority for Customs. Employing a case study methodology, a questionnaire was administered to a random sample of 91 employees from the General Authority for Iraqi Customs. The study yields several noteworthy findings. Firstly, it reveals a statistically significant effect of digital transformation on financial reporting within the Iraqi General Authority for Customs. Secondly, it demonstrates a statistically significant effect of digital transformation on financial performance in the same authority. Moreover, the study uncovers a significant relationship between digital transformation, financial reporting, and financial performance, with financial reports playing a mediating role in amplifying the impact of digital transformation on financial performance in the Iraqi government sector. The study recommends a broader implementation of digital transformation processes across public sector institutions, diversification of digital applications, and the design of supportive frameworks to educate citizens about the advantages of digital services provided by these institutions. By embracing digital transformation, government entities can unlock their full potential in terms of financial reporting accuracy and performance excellence, ultimately contributing to national development agendas.

Keywords: Digital Transformation, Financial Reports, Financial Performance, Iraqi General Authority of Customs.

1. INTRODUCTION

In today's rapidly evolving digital landscape, organizations worldwide are embracing digital transformation as a catalyst for change and innovation. The public sector, including governmental institutions, is no exception to this trend. Recognizing the potential benefits of digital transformation, the General Authority for Customs (GAC) in Iraq has embarked on a journey to leverage digital technologies to enhance its financial reporting and financial performance.

The digital transformation refers to a fundamental shift in the ways organizations conduct administrative and financial activities. It encompasses the integration and activation of various digital technologies, such as automated information systems, internet-based communication, artificial



intelligence, blockchain, and big data processing, to achieve accuracy, efficiency, and speed in organizational operations (Berghaus & Back, 2016).

Financial reporting plays a pivotal role in any organization, providing a comprehensive view of its financial position and performance (Palepu, Healy, Wright, Bradbury, & Coulton, 2020). It involves the preparation and presentation of financial statements that undergo rigorous examination and analysis for decision-making and evaluation purpose (Ansari, Euske, & Society, 1987)

Likewise, financial performance is a crucial indicator of an organization's ability to optimize resources and achieve desired outcomes (Berman, Wicks, Kotha, & Jones, 1999). It encompasses the effective utilization of financial resources over both short and long-term periods, contributing to value creation and cost efficiency (Walter, Ritter, & Gemünden, 2001).

In the context of the GAC, the digital transformation initiatives hold the promise of revolutionizing financial reporting practices and enhancing financial performance (Organization, 2018). By digitizing processes, embracing automated systems, and harnessing the power of data analytics, the GAC aims to improve the understandability, reliability, comparability, security, and confidentiality of its financial reports (Dahlman, Mealy, & Wermelinger, 2016). Furthermore, it seeks to leverage digital technologies to enhance its financial performance by aligning with national digital transformation strategies and supporting economic and social development (ElMassah & Mohieldin, 2020).

However, to ensure the success of the GAC's digital transformation efforts and assess their impact on financial reporting and financial performance, a comprehensive study is required. This study aims to examine the extent of digital transformation implementation in the Iraqi public sector, with a specific focus on the GAC. It seeks to determine the impact of digital transformation on the comprehensibility, reliability, comparability, security, and confidentiality of financial reports. Additionally, it aims to explore the relationship between digital transformation, financial reporting, and financial performance in the Iraqi public sector.

By addressing these research objectives and hypotheses, this study will contribute to filling the research gap in understanding the implications of digital transformation on financial reporting and financial performance in the Iraqi public sector. The findings of this study will provide valuable insights for the GAC and other governmental institutions in Iraq, enabling them to make informed decisions regarding digital transformation strategies, enhance financial transparency, and optimize financial performance.

In the following sections, this article will discuss the research methodology, present and analyze the findings, and provide recommendations for the GAC and other stakeholders in the Iraqi public sector.

2. LITERATURE REVIEW

The literature review provides a comprehensive overview of previous studies and research conducted in the field of digital transformation and its impact on financial reporting and financial performance. This review aims to identify key findings, similarities, and differences between previous studies and the current study, highlighting the gaps that the current study aims to fill.

Digital Transformation and Financial Performance: Several studies have examined the relationship between digital transformation and financial performance in various industries. For instance, (Liu, Zhou, Zhang, & Tang, 2023) and (Jardak & Ben Hamad, 2022) explored the impact of digital transformation on financial performance in the banking sector. They found that digital transformation enhances financial performance by improving operational efficiency, attracting investments, and gaining a competitive advantage.

Similarly, (Do, Pham, Thalassinou, Le, & management, 2022) and (Guo & Xu, 2021) focused on the impact of digital transformation on financial performance in the context of e-commerce companies. They concluded that digital transformation positively influences financial performance through increased sales, cost reduction, and improved customer satisfaction.

In the context of the banking sector, (Putra & Ventura, 2022) investigated the effects of digital transformation on financial performance. They highlighted the role of digital transformation in improving financial performance by enhancing information control, decision-making effectiveness, and service quality.



Digital Transformation and Financial Reporting: Studies have also examined the relationship between digital transformation and financial reporting. (Bentley-Goode, Newton, & Thompson, 2016) investigated the effects of digital transformation on financial transparency and the quality of financial reporting. The study found that digital transformation supports transparency requirements and enhances the characteristics of reliable, understandable, comparable, and timely financial information.

Furthermore, (Romney, Steinbart, Mula, McNamara, & Tonkin, 2012) explored the impact of digital transformation on accounting information credibility and the complexity of financial reports. They emphasized the role of digital transformation in improving the credibility, understandability, and simplicity of financial information disclosed in reports.

Digital Transformation in the Government Sector: Despite the extensive research on digital transformation and its impact on financial performance and reporting, few studies have focused on the government sector (Guo & Xu, 2021). The current study aims to address this gap by examining the impact of digital transformation on financial reporting and financial performance in the Iraqi General Commission for Customs (Muraina & Dandago, 2020).

3. MATERIAL AND METHODOLOGY

The scientific and technological advancements have prompted many countries worldwide to build and develop their national strategies for digital transformation, particularly in the public sector, alongside e-government projects, to enhance comprehensive social and economic development strategies. Many countries have made significant progress in digitizing the public sector and encouraging private sector institutions to do the same (Albury & management, 2005).

As a result, the concept of digital transformation has become one of the most important research variables that have garnered significant attention from researchers in recent years (Sarstedt, Ringle, Smith, Reams, & Hair Jr, 2014). They have extensively focused on studying its impact on various managerial, financial, and economic variables, including financial reporting and financial performance (Egbunike & Okerekeoti, 2018). This is the same theoretical direction followed by the current study, which examines the interplay of these three variables: digital transformation, financial reporting, and financial performance (Richard, 2000).

Overall, the global shift towards digital transformation in both the public and private sectors highlights its growing importance in driving organizational effectiveness, efficiency, and competitiveness (Pappas et al., 2018). The current study aims to contribute to the existing body of knowledge by examining the specific context of digital transformation in the Iraqi General Commission for Customs and its impact on financial reporting and financial performance (Howieson, 2003).

3.1 Digital transformation

Digital transformation can be understood through several dimensions, including defining both transformation and digitization, leading to the concept of digital transformation. It is essential to explore its definition, significance, objectives, characteristics, effects, requirements, and challenges, as discussed in the following contexts.

The term "transformation" refers to the general linguistic meaning of change or transition from one state to another. In the scientific context, it signifies the changes or modifications occurring in a system or organization (Harvey, 1989). Transformation refers to the alteration or modification in the nature, content, and structure of a particular system within social systems (Özigci, 2020). Therefore, transformation, in a general sense, indicates the transition from one state to a new state, often involving changes in ideas, technological means, and methods that vary from one form to another. It can be driven by both internal aspirations for change and external influential factors that necessitate keeping up with modern developments.

On the other hand, digitization refers to the process of converting data and information from traditional paper form into digital form and utilizing them within the realm of communication technologies and digital information systems (Pencarelli & Tourism, 2020). Digitization involves

transforming data and information into a digital system for processing using computers and computer systems (Legner et al., 2017).

3.1.1 Characteristics of Digital Transformation

Digital transformation possesses several characteristics that illustrate its nature and its contribution to improving business performance in various organizations, including trade entities. The most important characteristics include the following (Hall, 1993)

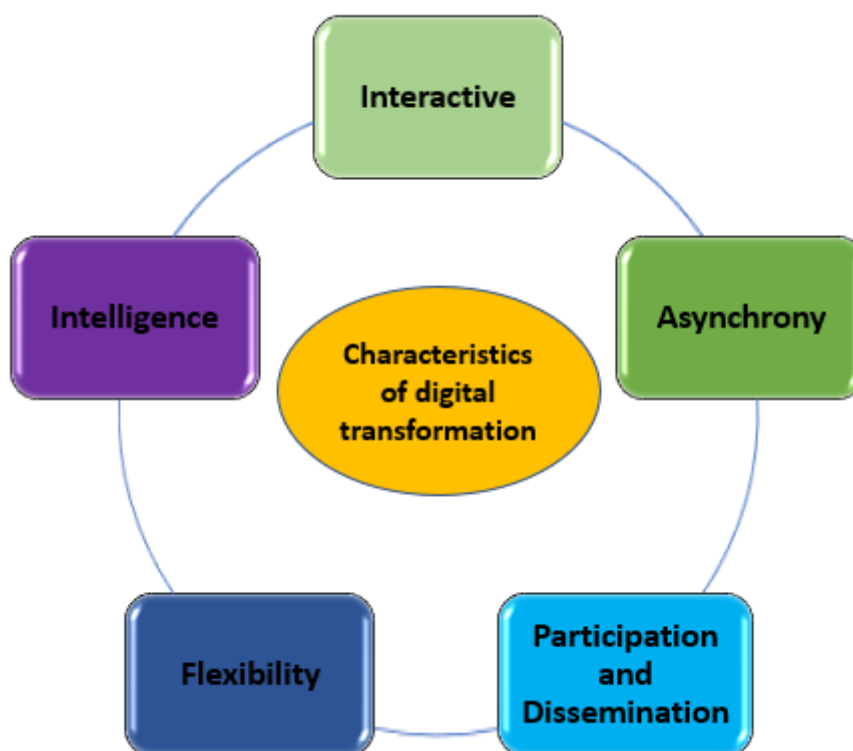


Figure.1 Characteristics of digital transformation

Source: Prepared by author (2023)

- ❖ **Interactivity:** Digital transformation technologies enable interactive and bidirectional communication, opening up opportunities for dialogue between multiple parties, rather than one-way communication.
- ❖ **Asynchrony:** This characteristic allows individuals to interact with data and information at their convenience, regardless of their location within or outside the organization.
- ❖ **Participation and Dissemination:** Digital transformation technologies enable every individual to participate in the organization's communication programs.
- ❖ **Flexibility:** Digital systems can be controlled by the responsible party using computer programs that offer a high level of usability.
- ❖ **Intelligence:** Digital transformation technologies are characterized by a high level of intelligence, allowing communication channels to enhance their performance and correct their course.

These characteristics highlight the interactive and dynamic nature of digital transformation, enabling effective communication, participation, and flexibility in the digital environment.

3.1.2 Effects of digital transformation

The effects of digital transformation can be summarized in the following five key areas, emphasizing the importance of digital transformation (Feliciano-Cestero, Ameen, Kotabe, Paul, & Signoret, 2023)

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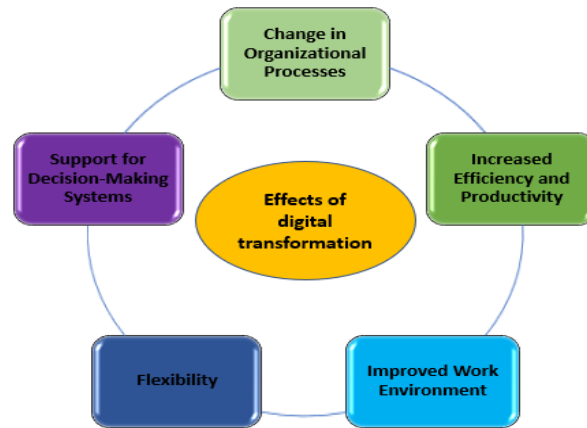


Figure.2 Effects of digital transformation

Source: Prepared by author (2023)

- ❖ **Change in Organizational Processes:** Digital transformation represents a radical shift in the methods and means of operation, enabling the adoption of new business models based on digital technologies.
- ❖ **Increased Efficiency and Productivity:** Digital transformation contributes to the development of new methods and mechanisms to enhance operational processes, improve performance, and increase productivity, thereby enabling organizations to achieve higher levels of sustainability.
- ❖ **Improved Work Environment:** Digital transformation creates suitable work environments, promotes occupational safety systems, and mitigates various risks.
- ❖ **Flexibility:** Digital transformation helps organizations adapt to changes and respond positively to various circumstances in their surrounding environment. It allows organizations to easily modify their plans and operations to meet evolving market needs, improve competitiveness, and enable swift access to opportunities.
- ❖ **Support for Decision-Making Systems:** The process of digital transformation enhances an organization's ability to leverage data and information in making various decisions. As a result, decisions are characterized by effectiveness and benefit.

These effects demonstrate how digital transformation positively impacts organizational processes, efficiency, work environment, flexibility, and decision-making capabilities.

3.1.3 Requirements and Challenges of Digital Transformation

To achieve successful digital transformation, several necessary requirements must be met, along with potential challenges that organizations may face (Akour & Alenezi, 2022) :

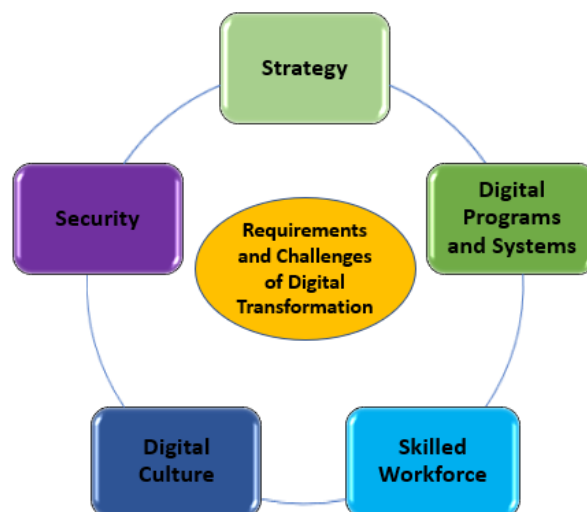


Figure.3 Requirements and Challenges of Digital Transformation

Source: Prepared by author (2023)

- ❖ **Strategy:** Strategic planning for digital transformation is crucial for its success. Organizations need to develop an integrated strategy that outlines objectives and requirements for implementation.
- ❖ **Digital Programs and Systems:** These are the technologies required for digital transformation, which should be clearly defined in the strategic plan and meet all necessary conditions and requirements for their operation and activation.
- ❖ **Skilled Workforce:** Having a specialized and qualified workforce to manage and execute digital transformation initiatives is essential. This workforce is responsible for developing digital systems and enhancing digital capabilities at all organizational levels.
- ❖ **Digital Culture:** Organizations must foster a digital culture that incorporates the necessary knowledge, experiences, and skills for effectively dealing with digital technologies among all employees.
- ❖ **Security:** Digital transformation requires the establishment of comprehensive rules and regulations to ensure data and information security, as well as the enhancement of occupational safety conditions to ensure that all activities are conducted in a safe working environment.

These requirements and challenges highlight the importance of strategic planning, technological infrastructure, skilled personnel, digital culture, and security measures in successful digital transformation efforts.

3.2 Financial reports

Financial reports or statements are not just a profession but the language of business in various environments. They are used to identify, measure, and communicate financial information about an organization to all relevant parties, whether internal or external. These reports summarize the financial position, profitability, and cash flow of an entity over a specific period. They serve multiple purposes and are utilized for informed decision-making by stakeholders. Financial reports are the output of accounting processes, providing a structured presentation of an organization's financial performance and position. They facilitate evaluation by management and owners, as well as other interested parties, such as investors and creditors. In essence, financial reports are a key component of the accounting system, supplying information to support decision-making at various managerial and executive levels, both domestically and internationally.

The objectives of financial reports are to provide relevant and reliable information for investors, creditors, and other stakeholders to make informed decisions regarding the organization's financial position, performance, and cash flows. These reports aim to assist users in evaluating investment opportunities, predicting future cash flows, and assessing the organization's financial health and effectiveness.

3.2.1 Importance of financial reports

The importance of financial reports can be summarized in three key aspects :

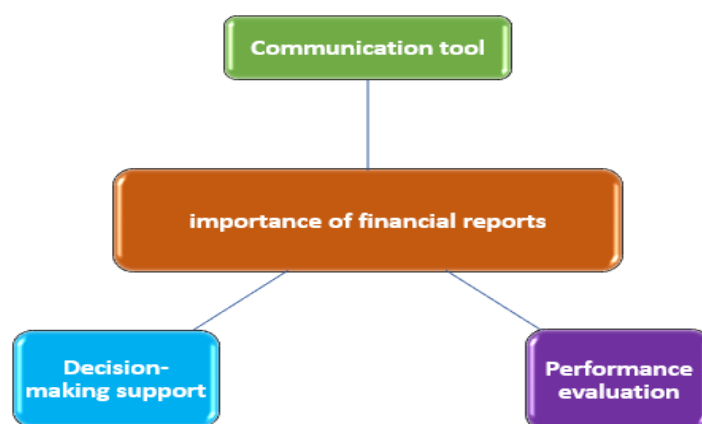


Figure.4 Importance of financial reports
Source: Prepared by author (2023)

- ❖ Communication tool: Financial reports serve as a means to communicate accurate and clear information about the organization's activities and its stakeholders to all users, including suppliers, customers, banks, and others.
- ❖ Performance evaluation: Financial reports are a fundamental pillar of financial measurement and analysis. They provide the essential reference for evaluating and assessing the financial performance of the organization at various levels.
- ❖ Decision-making support: Financial reports assist the management and various stakeholders in making optimal strategic decisions. They enable direct stakeholders to guide their future relationships with the organization and its activities.

3.2.2 characteristics of financial reports

The characteristics of financial reports, as defined by international standards, can be summarized as follows:

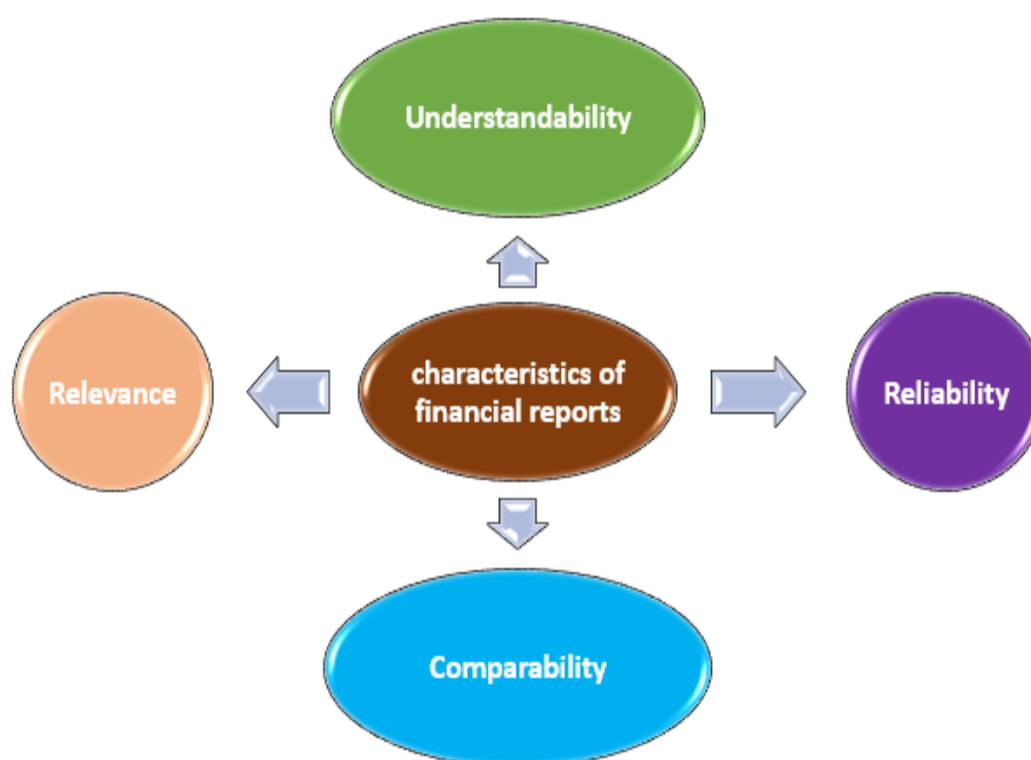


Figure.5 characteristics of financial reports
Source: Prepared by author (2023)

1. Understandability: Financial information in reports should be easily comprehensible to users who have basic knowledge of business, economics, and accounting and are willing to study the information with a reasonable level of diligence.
2. Reliability: The information provided in financial reports should be reliable and verifiable, free from errors and bias. This reliability is achieved through three sub-characteristics:
 - ❖ Faithful representation: The information accurately represents the transactions and events it purports to represent, free from errors, and can be trusted to provide a true and fair view of the organization.
 - ❖ Neutrality: The information is objective and unbiased, serving all users equally.
 - ❖ Verifiability: The information can be verified through measurement and obtaining the same results.

3. **Relevance:** The relevance of financial reports lies in providing truly useful data and information for all users to make their investment and economic decisions. The reports should help users evaluate past, present, and future events, confirm or correct previous evaluations.

Relevance has three sub-characteristics:

- ❖ **Predictive value:** Assisting decision-makers in improving the accuracy of their forecasts about future outcomes.
- ❖ **Feedback value:** The ability to evaluate and verify expectations through monitoring and evaluation.
- ❖ **Timeliness:** Providing information in a timely manner to be useful and relevant.

4. **Comparability:** Financial reports should allow users to make multiple and diverse comparisons between reports and data from previous and future financial periods. This enables the identification of changes in the organization's financial position and performance and facilitates the evaluation of its financial position and relative performance compared to other organizations.

3.3 Financial performance

Financial performance refers to the ability of an organization to achieve its goals and objectives through the effective and efficient utilization of resources. It is a measure of the organization's success in attaining desired outcomes and optimizing financial results. Financial performance can be evaluated based on factors such as profitability, liquidity, solvency, and return on investment.



Figure.6 elements of financial performance
Source: Prepared by author (2023)

3.4 The relationship between digital transformation, financial reporting and financial performance

Many previous studies indicate a strong correlation between digital transformation and financial reporting. A study by (Lev & Zarowin, 1999) revealed that digital transformation leads to the advancement of the accounting and auditing profession by increasing the speed of financial processes, auditing, and financial analysis. It also contributes to enhancing the quality of financial reports. Similarly, (Wang, Liu, Xiong, & Health, 2022) concluded that digital transformation has a positive impact on improving the quality of financial reports. This finding aligns with the study by Naseer (2021), which highlighted that higher levels of digital transformation result in reduced information asymmetry in financial reports. Isaac's study (2022) found that digital transformation has made accounting information published in financial reports of commercial banks in the Khartoum



Stock Exchange truthful, secure, easy to understand, and devoid of complexity. Digital transformation has also contributed to the neutrality of accounting information and the enhancement of service quality for customers.

Furthermore, the results of previous studies align with the findings of Shenan's study (2023), which indicated that digital transformation supports transparency requirements such as verifying settlements, providing technological means for disclosure, assessing resource efficiency, disclosing management policies, adopting modern approaches, and reducing earnings management. It also enables the achievement of fundamental characteristics of accounting information, including faithful representation, relevance, understandability, comparability, timeliness, verifiability, disclosure of information outside the financial statements, completeness, and clarity.

Likewise, several studies highlight the relationship between digital transformation and financial performance. Lozic's study (2021) found a positive impact of digital transformation on financial performance, particularly evident during the COVID-19 pandemic, as digital transformation facilitated task completion and led to good financial performance in organizations. Guo and Xu's study (2021) revealed a positive correlation between the intensity of digital transformation and process-oriented operational performance, indicating a more significant influence of digital transformation on operational performance than on financial performance. The study emphasized the role of favorable conditions such as policy environment and innovation in improving operational performance through digital transformation. Al-Dunon's study (2022) identified a relationship between digital transformation and the financial performance of banks, indicating that digital transformation contributes to improving financial performance. Additionally, Doan Do et al. (2022) found a positive impact of digital transformation on the performance of Vietnamese commercial banks, with larger banks experiencing a greater positive influence. Liu's study (2023) demonstrated that financial digital transformation significantly enhances the financial performance of companies listed on the stock exchange, and this improvement is sustainable over time. Information symmetry and operating expenses act as mediating variables in the financial digital transformation that affects financial performance. Furthermore, information disclosure and operating costs sequentially play a role in influencing financial performance during digital transformation. Similarly, Rishwan and Qasim's study (2020) concluded that digital transformation plays a role in improving bank performance and attracting investments.

In summary, there is a close relationship between digital transformation and both financial reporting and financial performance. Therefore, the relationship between digital transformation and financial reporting can be seen as a composite variable that enhances the impact of digital transformation on financial performance. This is due to the evident influence of digital transformation on various aspects of the accounting and auditing profession, where most financial recording, accounting, auditing, and review processes are conducted through digital accounting information systems. Moreover, modern organizations heavily rely on digital financial reports.

3.5 Data Sources

data and information need in both the theoretical and practical aspects and in light of the chosen methodology, the study relied on two types of data and information sources:

- 3.5.1 Secondary sources: These sources serve the theoretical aspect of the study, encompassing all the backgrounds, scientific and cognitive content, and theories explaining the study variables. This involved analyzing the content of available literature, including books, encyclopedias, scientific research, reports, published and documented blogs.
- 3.5.2 Primary sources: This category of sources supports the practical aspect of the study by conducting fieldwork to collect data and information directly from the primary sources. This involved individuals from the study population and sample. The primary sources included employees of the General Authority for Customs in Iraq, encompassing all its administrative departments (personnel, financial department, relations and information, legal and customs affairs), and its directorates in the provinces.

3.6 Study Population and Sample

The original study population consists of all employees in the General Authority for Customs in Iraq across its administrative departments and directorates in the provinces.

As for the study sample, it was selected using a simple random sampling method from the original population and consisted of 91 participants.

3.7 Study Model

The study aims to investigate the impact of digital transformation on financial reporting and financial performance in the Iraqi government sector. Therefore, the study model consists of three variables: the independent variable, which is digital transformation, and two dependent variables: financial reporting and financial performance. The study model can be represented as follows:

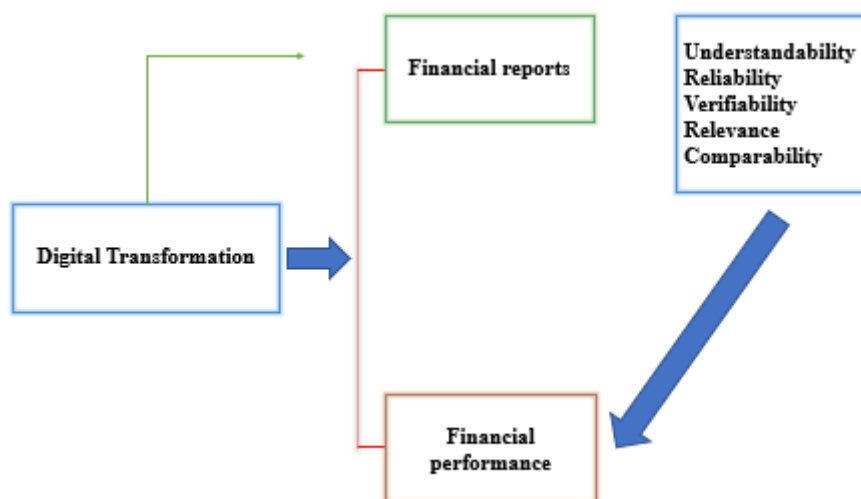


Figure.7 Study form

Source: Prepared by author (2023)

3.8 Hypotheses of the Study

The study aims to answer its research questions by testing the validity of three main hypotheses, along with several subsidiary hypotheses, as follows:

1. Main Hypothesis 1 (H1): There is a statistically significant effect at a significance level ($0.05 \geq \alpha$) of digital transformation on financial reporting in the Iraqi government sector.

This main hypothesis leads to the following subsidiary hypotheses:

- Subsidiary Hypothesis 1 (H1-1): There is a statistically significant effect at a significance level ($0.05 \geq \alpha$) of digital transformation on the understandability of financial reports in the Iraqi government sector.
 - Subsidiary Hypothesis 2 (H1-2): There is a statistically significant effect at a significance level ($0.05 \geq \alpha$) of digital transformation on the reliability of financial reports in the Iraqi government sector.
 - Subsidiary Hypothesis 3 (H1-3): There is a statistically significant effect at a significance level ($0.05 \geq \alpha$) of digital transformation on the relevance of financial reports in the Iraqi government sector.
 - Subsidiary Hypothesis 4 (H1-4): There is a statistically significant effect at a significance level ($0.05 \geq \alpha$) of digital transformation on the comparability of financial reports in the Iraqi government sector.
 - Subsidiary Hypothesis 5 (H1-5): There is a statistically significant effect at a significance level ($0.05 \geq \alpha$) of digital transformation on the security and confidentiality of financial reports in the Iraqi government sector.
2. Main Hypothesis 2 (H2): There is a statistically significant effect at a significance level ($0.05 \geq \alpha$) of digital transformation on financial performance in the Iraqi government sector.

3. Main Hypothesis 3 (H3): There is a statistically significant effect at a significance level ($0.05 \geq \alpha$) of the relationship between digital transformation, financial reporting, and financial performance in the Iraqi government sector.

3.9 Study Instrument

To achieve the objectives of the study, the researcher chose the questionnaire as the research instrument. It is considered one of the best tools for field descriptive research because it helps in collecting data and information about the phenomenon under study from the sample individuals and the research community, as the study is field-oriented and aims to understand the opinions and perceptions of employees in the General Authority of Customs in Iraq regarding the impact of digital transformation on financial reporting and financial performance in the government sector.

The researcher designed and developed a questionnaire based on the research problem and its questions, in addition to including the demographic and job-related data of the study sample. The questionnaire consists of the following sections:

Section 1: Questions related to demographic and job-related data, including gender, age, educational degree, department/section, position, and years of experience.

Section 2: This section includes the questionnaire's axes and items, such as:

The researcher benefited from the formulation of the questionnaire items from previous studies: (Haddad, 2022) (Rahli & Ben El Saidi, 2022) (Moatouq, 2021) (Rashwan & Qasim, 2020) (Belaïd & Foudi, 2017) (Mohammed, 2016).

Table 1. Study Instrument (Questionnaire) Axes and Items

Axis	Axis Title	Number of Paragraphs
1	Digital Transformation	16
2	Financial reports	20
3	Financial performance	17
Total Number of Questionnaire Items		53

In addition, the researcher chose to use a Likert scale with five weights (strongly agree, agree, neutral, disagree, strongly disagree) as it is one of the most commonly used scales in descriptive studies. It is suitable for obtaining results that are close to the actual reality in terms of accuracy and objectivity, given its multiple gradations and statistical measurability (Hassballah, 2020, p. 160).

3.10 Statistical Analysis Methods

We utilized the following statistical analysis methods using the Statistical Package for the Social Sciences (SPSS):


- Pearson correlation coefficient and Cronbach's alpha: Used to measure the reliability and validity of the questionnaire.
- Percentages and frequencies: Used to present sample characteristics.
- Mean and standard deviation: Used for quantitative descriptive analysis to analyze and interpret the weights obtained for each axis and item in the questionnaire.
- Multiple regression analysis: Used to test the hypotheses, which involves several statistical tests.

4. RESULTS AND DISCUSSION

The sample characteristics were determined based on six variables, which include gender, age, educational level, department/section, job position, and years of experience. The statistical analysis results for the sample characteristics are as follows:

Table 2. Characteristics of the Studied Sample

variable	Characteristics.	Number	Percentage (%)
Gender	Female	33	36.3



	male	58	63.7
	diploma	7	7.7
Educational qualification.	Bachelor's degree	55	60.4
	Master's degree	26	28.6
	Doctorate (Ph.D.)	3	3.3
Sample Characteristics by Age	20-30 Year	10	11
	31-40 Year	37	40.7
	41-50 Year	37	40.7
	More than 50 Year	7	7.6
Job field	General Management	19	20.9
	Financial Department	53	58.2
	Legal and customs affairs	5	5.5
	Human Resources	5	5.5
	Relationships and information	3	3.3
	Department of Information Technology	6	6.6
Job description	Deputy Director	6	6.6
	Head of the Department	16	17.6
	Accountant/financial specialist	41	45.1
	Financial auditor	5	5.5
	Information technology specialist	6	6.6
	obtained	2	2.2
	other	15	16.4
Years of experience	1-5 years	9	9.9
	6-10 years	19	20.9
	10-15 years	36	39.6
	More than 15 years	27	29.6

In conclusion, the study sample possesses a variety of personal and professional characteristics that align with the study's objectives. It includes participants of both genders, various age groups, individuals with high and moderate educational qualifications, and employees in vital departments and sections of the General Authority for Customs in Iraq. Their job positions and years of experience are diverse. These qualitative characteristics make the sample representative of the study population, while the sample also aligns to some extent with the quantitative objectives of the study.

4.1 General Descriptive Analysis of Questionnaire Items

The general descriptive analysis aims to understand the ratings and weights obtained for each item in the questionnaire based on the responses of the sample participants. This analysis provides an overall assessment of the tool's horizontal dimension. On the vertical dimension, it helps measure the overall score for each variable and each dimension of the study by relying on the mean and standard deviation values for each item, dimension, and variable.

According to the interpretive guideline for the five-point Likert scale, the results can be interpreted as follows:

Table 2. Interpretation Guidelines for the Five-Point Likert Scale

arithmetic mean values	Explanatory indication
Average values between (1.00 - 2.99)	Rejection and disagree
Average values between (3.00 - 3.33)	neutrality
Average values between (3.34 - 3.99)	Moderate Agree
Average values between (4.00 - 4.99)	Strongly Agree

Based on this basis, the results of the general descriptive statistical analysis of the sample respondents' answers to the questionnaire items can be presented, discussed, and interpreted for one axis of the three axes. Here is an overview:

4.2 Results Related to the First Axis: Degree of Digital Transformation Implementation

The first axis consists of 16 items aimed at assessing the degree of digital transformation implementation in the General Commission of Customs in Iraq. The mean values on the horizontal level indicate the level of agreement of the sample respondents with each item of the axis. On the vertical level, the overall mean of all the items represents a quantitative measure of the degree of digital transformation implementation in the commission. Therefore, the descriptive statistical results for this axis are as follows:

Table 3. Descriptive Statistics Results Related to the First Axis - Extent of Digital Transformation

P	Paragraph	Mean	Standard Deviation
1	The Customs Commission has a comprehensive digital transformation strategy.	3.89	0.781
2	The Customs Commission utilizes modern digital information management and accounting systems.	3.7	0.913
3	The General Commission of Customs has an official website on the internet.	4.14	0.768
4	The General Commission of Customs has an internal digital communication network that connects all its offices and branches.	3.69	1.008
5	The General Commission of Customs engages in continuous communicative and interactive activities through its various accounts on social media platforms.	3.77	0.818
6	The General Commission of Customs utilizes digital technologies to categorize its audience and clients.	3.52	0.861
7	The General Commission of Customs has an integrated digital database that contains information about all taxpayers and targeted individuals, and it is regularly updated.	3.58	0.92
8	The General Commission of Customs has a digital application available on smartphones to serve customers and communicate with them directly.	3.27	0.969
9	The General Commission of Customs implements digital payment and collection systems for financial transactions.	3.62	0.952
10	The General Commission of Customs has introduced new remote work positions utilizing digital communication technologies.	3.48	0.931

11	All activities of the General Commission of Customs are now conducted through digital technologies	3.4	1.015
12	The General Commission of Customs has a specialized Information Technology	3.85	0.698
13	all employees utilize computers and smart devices as part of their job functions	3.13	1.056
14	Training programs are implemented to develop digital skills for all employees in the Authority	3.53	0.911
15	The authority is interested in promoting digital culture among all employees	3.45	0.922
16	Employees in the authority gain new digital experiences and skills every day	3.27	0.955
Overall average		3.6	0.905

As shown in the previous table, the results of the descriptive analysis regarding the extent of digital transformation implementation in the General Authority for Customs in Iraq varied between two extremes. The highest value of (4.14) was observed for Item (3), indicating a high level of agreement. On the other hand, the lowest value of (3.13) was recorded for Item (13), suggesting a lower level of agreement. Except for Item (3) which indicates a high level of agreement, the remaining mean values were below (4.00), falling into two interpretive categories:

- ❖ The first category represents neutral values, as observed for Items (8, 13, 16). This suggests that the General Authority for Customs does not currently have a mobile application for direct customer service and communication. Additionally, most employees in the authority do not use computers and smart devices in their job performance, indicating a lack of continuous acquisition of new digital experiences and skills.
- ❖ The second category indicates moderate agreement levels for the remaining items. It suggests that the General Authority for Customs has a website on the internet, is moving towards digital transformation with a comprehensive strategy, has established a specialized IT management within its organizational structure, engages in continuous communication and interaction through various social media accounts, utilizes modern digital administrative and accounting information systems, and has an internal digital communication network connecting all its offices and branches.

On a horizontal level, the overall average mean value for all items in the axis was (3.6), indicating a moderate degree of digital transformation implementation in the General Authority for Customs in Iraq. This suggests that the authority has not yet achieved full digital transformation in all its activities, functions, and operations, and its progress in this direction is likely to be slow. Therefore, it can be concluded that the digital transformation implementation in the authority is still below the desired level.

4.3 Results Related to the Second Axis: Degree of Digital Transformation Implementation

Based on the study model and its instrument (the questionnaire), the variable of financial reporting has five dimensions: understandability, reliability, relevance, comparability, and security and confidentiality. The items in each dimension were evenly distributed, with four items representing each dimension. The results of the general descriptive analysis for each dimension are as follows:

Table 4. Descriptive Statistics Results Related to the Second Axis - Extent of Digital Transformation

P	Paragraph	Mean	Standard Deviation
1	All financial reports in the Authority are generated automatically using digital systems.	3.47	0.947
2	Digital financial reports are characterized by accuracy and clarity.	3.68	0.868

3	Digital technologies provide financial reports that are understandable by all users.	3.75	0.811
4	All financial reports of the organization are published across all its digital channels.	3.42	0.932
	The overall degree of understandability for digital financial reports is high	3.58	0.890
5	Digital technologies contribute to increasing the reliability of financial reports.	3.92	0.81
6	Digital financial reports are characterized by being free from errors and bias.	3.6	0.855
7	Digital financial reports possess a high degree of accuracy and reliability.	3.8	0.846
8	Digital financial reports are characterized by verifiability and ease of measurement for the purpose of ensuring their reliability.	3.88	0.758
	The overall degree of reliability of digital financial reports is high	3.80	0.817
9	Digital financial reports are aligned with International Financial Reporting Standards (IFRS), making them suitable for all users.	3.74	0.867
10	Digital financial reports include data from previous years, providing a historical perspective on the financial performance and position of an entity.	3.7	0.782
11	Digital financial reports have the ability to be predictive and allow for verification of information through feedback mechanisms	3.62	0.742
12	Financial reports are provided in a timely manner to cater to the needs of all users within and outside the organization	3.69	0.812
	The overall degree of suitability of digital financial reports	3.69	0.801
13	Digital financial reports can include financial forecasts for future years	3.76	0.886
14	Digital financial reports are characterized by their comparability with previous reports	3.92	0.636
15	Digital financial reports facilitate financial analysis for comparison purposes	3.89	0.678
16	Digital financial reports are beneficial in assessing the relative performance of the organization	3.93	0.696
	The overall degree of comparability for digital financial reports is high	3.88	0.724
17	The organization relies on a modern digital security system to protect its digital data	3.68	0.893
18	The digital security system provides a high level of protection for all data and financial reports	3.85	0.802
19	The digital security system is continuously updated to effectively counter any attempts to breach the financial database	3.74	0.854
20	the digital security system contributes to the distribution of permissions and control over operations and the safety of financial reports	3.8	0.718

The overall degree of security and confidentiality of digital financial reports	3.6	3.77
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4.4 The Results Related to the Third Dimension: Financial Performance in the Digital Transformation Context

The third dimension consists of (17) items aimed at assessing the level of financial performance of the General Commission of Customs in Iraq in the context of digital transformation. All items in this dimension were formulated to capture the potential impact of digital transformation on financial performance in public sector departments, institutions, and organizations in Iraq.

The descriptive statistical results related to this dimension are presented in the following table.

Table 5. Descriptive Statistics Results Related to the Third Axis - Extent of Digital Transformation

P	Paragraph	Mean	Standard Deviation
1	Digital transformation has contributed to increasing the revenues of the General Commission of Customs.	3.81	0.881
2	Digital transformation has significantly enhanced the Commission's ability to increase customs collections.	3.74	0.867
3	Digital transformation has improved the efficiency and effectiveness of financial resource management within the Commission.	3.76	0.807
4	Digital transformation has strengthened the Commission's ability to reach all stakeholders in a faster and more cost-effective manner.	3.89	0.767
5	Digital transformation has played a role in reducing customs evasion.	3.85	0.906
6	Financial reports of the Commission demonstrate a high level of financial performance in the context of digital transformation.	3.7	0.767
7	Digital transformation has led to the improvement of the Commission's services quality and increased efficiency in financial performance.	3.81	0.829
8	Digital technologies have facilitated the procedures for customs fee collection.	3.91	0.784
9	The Commission has achieved expansion and growth in its economic role in financing the general budget as a result of digital transformation.	3.79	0.810
10	Digital transformation has contributed to reducing the costs of revenue-generating activities within the Commission.	3.66	0.885
11	Digital technologies assist in analyzing the Commission's financial data and regularly measuring and evaluating its financial performance	3.81	0.759
12	Digital technologies support predictive measurement processes to enhance financial performance and minimize deviations	3.71	0.75
13	Digital transformation technologies provide early warning indicators and financial information about future risks	3.62	0.84
14	Digital transformation technologies support non-structural measurement models for analyzing	3.6	0.761

qualitative information to measure and evaluate the Commission's financial performance			
15	Digital financial reports of the Commission include data and financial indicators that represent its financial performance in each financial cycle	3.86	0.646
16	Digital transformation technologies significantly contribute to evaluating the Commission's financial performance in all financial reports (annual, quarterly, derivative financial information reports, and predictive reports)	3.91	0.798
17	The digital financial reports demonstrate a noticeable improvement in the Commission's financial performance in the context of digital transformation	3.86	0.708
The overall average (total score) for the variable		3.8	0.798

According to the results shown in the previous table, the mean scores for the items in the third dimension ranged from the highest score of 3.91 for items 8 and 16, to the lowest score of 3.6 for item 14. On the vertical level, the overall mean value for the dimension was 3.80, indicating a moderate level leaning towards improvement in the financial performance of the General Authority of Customs in Iraq under digital transformation.

From this, the researcher concludes that there is a gradual effect, in which financial reports play an intermediary role, of digital transformation on the financial performance of the General Authority of Customs in Iraq. This effect is still at a moderate level. Digital technologies have facilitated the collection of customs fees, enhanced the authority's ability to reach all taxpayers in a faster and more cost-effective manner, and improved the quality of services and financial performance. This is reflected in the increase in revenue for the General Authority of Customs under digital transformation.

Furthermore, the impact of digital transformation is evident in enhancing the evaluation of financial performance through various financial reports (annual, quarterly, derivative financial information reports, and predictive reports). These reports include financial data and indicators that reflect the level of financial performance in each financial cycle, demonstrating a noticeable improvement in the financial performance of the authority under digital transformation.

5. CONCLUSIONS

Based on the findings and analysis presented, it can be concluded that the digital transformation efforts implemented by the General Authority of Customs in Iraq have had a significant impact on its financial performance. The adoption of digital technologies has resulted in increased revenue, improved efficiency in financial resource management, and enhanced the quality of services provided by the authority. The implementation of digital systems, such as digital payment and reporting systems, has facilitated the collection of customs fees and improved the authority's ability to reach taxpayers in a timely manner. This has contributed to reducing customs evasion and increasing overall compliance. Additionally, the availability of digital financial reports, including forecasts for future years, has facilitated better monitoring, analysis, and evaluation of the authority's financial performance. However, there is still room for further progress and improvement in the digital transformation journey to fully leverage the potential of digital technologies and achieve even higher levels of financial performance.

6. RECOMMENDATIONS


To fully harness the benefits of digital transformation in the public sector in Iraq, several key recommendations should be considered. First, there is a need to prioritize the development of technological infrastructure by allocating budgets and resources to enable institutions to embrace digital transformation initiatives that align with their activities. This includes providing necessary

devices, technologies, and digital programs to enhance connectivity and positively impact financial performance.

Another critical recommendation is to invest in training and upskilling employees in government institutions. By equipping them with the necessary digital skills and knowledge, they can effectively navigate the challenges and complexities that come with digital transformation. Continuous training programs will enhance their digital competence and contribute to improved financial performance. Furthermore, it is crucial to expand the scope of digital transformation operations in the public sector and diversify the range of digital applications available. This includes developing supportive frameworks to educate citizens on utilizing digital services and fostering a digital-first mindset.

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