

The Role of Digitalization as an Effective Mechanism in Improving the Financial Performance of the Public Treasury in the Province of Tiaret.

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Received: 02/01/2026

Accepted: 25/04/2026

Published: 30/04/2026

Abstract:

This study aims to analyze the impact of digitalization on improving the financial performance of the Public Treasury in Tiaret Province. A descriptive and descriptive-analytical approach was adopted, using appropriate statistical methods to test the study hypotheses. Data were collected through a structured questionnaire distributed to a purposive sample of 30 employees of the Public Treasury.

The findings reveal a statistically significant effect of digitalization on financial performance. Technological infrastructure, financial information systems, digital competencies of human resources, and digital governance contribute to enhancing efficiency, reducing financial errors, and strengthening transparency and control, with digital governance emerging as the most influential dimension.

The study concludes that successful digital transformation requires not only adequate technological infrastructure but also the effective integration of qualified human resources and governance systems to ensure sustainable financial performance.

Keywords: Digitalization; Financial Performance; Public Treasury; Digital Governance; Tiaret province.

JEL Classification Codes: H83, H61, O33

1. INTRODUCTION

The rapid development of information and communication technologies has significantly transformed public administration practices, particularly in public finance, making digitalization a key driver of administrative modernization and performance improvement through automation, real-time data exchange, and enhanced transparency.

The public treasury plays a central role in implementing fiscal policy and managing public revenues and expenditures; however, it faces challenges related to procedural complexity and operational inefficiency. In this context, digitalization represents a strategic mechanism for improving financial performance and ensuring more accurate and reliable financial operations.

In Algeria, digital transformation within the public treasury has progressed at varying levels across provinces. The Tiaret province is selected as the case study for this research due to its relevance at the local level and its suitability for examining the impact of digitalization in a practical context.

Accordingly, this study analyzes the impact of digitalization—through technological infrastructure, financial information systems, digital human resource competencies, and digital governance—on improving the financial performance of the public treasury in the Tiaret province, with the aim of providing empirical evidence to support informed decision-making.

Accordingly, the main research problem can be formulated as follows:

To what extent can digitalization serve as an effective mechanism for improving the financial performance of the public treasury in the Tiaret province?.

1.1 Sub-Research Questions:

To answer this question, we raise the following sub-questions:

- What is the impact of technological infrastructure on improving the financial performance of the public treasury in the Tiaret province?
- What is the impact of financial information systems on improving the financial performance of the public treasury in the the Tiaret province?

- What is the impact of the digital competence of human resources on improving the financial performance of the public treasury in the Tiaret province?
- What is the impact of digital governance on improving the financial performance of the public treasury in the Tiaret province?

1.2 Sub-Hypotheses:

The following hypotheses can be formulated:

- There is no statistically significant effect of technological infrastructure on improving the financial performance of the public treasury in the Tiaret province at the significance level ($\alpha = 0.05$).
- There is no statistically significant effect of financial information systems on improving the financial performance of the public treasury in the Tiaret province at the significance level ($\alpha = 0.05$).
- There is no statistically significant effect of the digital competence of human resources on improving the financial performance of the public treasury in the Tiaret province at the significance level ($\alpha = 0.05$).
- There is no statistically significant effect of digital governance on improving the financial performance of the public treasury in the Tiaret province at the significance level ($\alpha = 0.05$).

1.3 Research Objectives:

This study evaluates the level of digitalization adoption in the Public Treasury of Tiaret by analyzing the relationship between digital transformation and financial performance quality, with a focus on the role of technological infrastructure, information systems, digital human resources, and e-governance in improving performance efficiency.

1.4 Research Methodology:

The study adopts a descriptive approach to examine the theoretical aspects of digitalization and its role in improving public treasury performance, and a descriptive–analytical approach for the empirical part by analyzing questionnaire data collected from public treasury employees in the Tiaret province using SPSS to test the statistical relationships among the study variables.

2. Digitalization and Barriers to Institutional Transformation in Public Treasury Management :

2.1 Digitalization as a Strategic Institutional Transformation in Public Treasury Management:

Digitalization has evolved from a nascent technical innovation into a central pillar of institutional (Ciancarin, Giancarlo, & Grimaudo, 2023, p. 290). Initially, the historical development of digitalization can be traced to the gradual shift from traditional, analog operational systems to advanced, data-driven infrastructures within organizations. Over the years, firms have increasingly adopted relational and non relational database management systems, enabling more efficient storage, retrieval, and processing of organizational (Vieling, 2023, p. 03) . This transition has allowed institutions to replace manual procedures with automated workflows, significantly accelerating internal processes and enhancing decision making speed and accuracy. this widespread adoption of digital technologies represents a transformative response to the need for higher operational efficiency and more agile management. (Egodawele, Darshana, & Vonh, 2022, p. 04) .

In the public sector, digitalization has become a core driver of institutional reform, particularly in treasury and finance administrations. Governments increasingly implement digital platforms, such as e-payment systems and integrated financial ledgers, to streamline public financial management and enhance compliance (Tomasz, 2015, p. 227) . the adoption of digital technologies also empowers public entities to monitor expenditures in real time, thereby reducing risk, curbing waste, and improving accountability in budget execution. Moreover, digitalization fosters citizen trust by enabling greater transparency and facilitating access to financial information via online dashboards and portals. As such, the shift toward digital governance represents not only a technological upgrade but a strategic transformation in how public finances are managed to increase efficiency, control, and public legitimacy (Noella, Nathalie, & Ines, 2023, p. 342) .

digitalization represents an advanced stage in government development, contributing to increased transparency and efficiency while

reducing administrative burdens through the use of digital systems in information exchange and decision-making (Tomasz, 2015, p. 225). that implementing digitalization in the public sector improves the quality of public services by accelerating procedures and facilitating citizens' access to government information, thereby enhancing trust between citizens and administration. Furthermore. an effective mechanism for improving financial performance, as it automates processes, enhances data accuracy, and reduces errors in government financial systems (Mamdouh, 2022, p. 02) .

Additionally, that digitalization supports digital governance by enhancing accountability, monitoring, and data-driven decision-making. Therefore, it is evident that digitalization has become a core pillar for developing the public sector and improving operational and financial performance by enhancing efficiency, promoting transparency, facilitating communication, and achieving greater sustainability in public administration. Thus, the digital transformation of Government is not just a technological upgrade; it represents a strategic shift toward more efficient, accountable, and citizen-centered public financial management (Papers, 2020, p. 15) .

More specifically, in the public treasury context, The historical advancement of digitalization within the public treasury reflects a critical shift from manual and analog processes to sophisticated digital financial infrastructures. Over time, treasuries have adopted integrated financial management systems and e-payment platforms, leveraging digital technologies to streamline budget execution and enhance cash flow visibility (Muhammad, 2025, p. 818). According to, this digital transformation in public finance enables real-time tracking of public funds, which reduces fraud and strengthens fiscal discipline. In addition, digital innovation in treasury operations improves transparency and accountability by automating transaction reporting and integrating data across government agencies. As such, the digitization of treasury functions contributes not only to operational efficiency but also to better governance, thereby reinforcing public trust and optimizing resource allocation in line with strategic fiscal

goals (Davit & Dimitri, 2025, p. 03).

Overall, the digital transformation of public treasuries represents a comprehensive institutional shift rather than a mere technological upgrade, enabling improved operational efficiency, enhanced fiscal discipline, and more informed, data-driven financial decision-making.

2.2 Institutional, Technical, and Human Barriers to Digital Transformation in the Public Sector (UNESCO, 2023):

Cultural and organisational barriers:

- A work culture averse to experimentation and innovation, hindered by a fear of failure
- Low levels of leadership support to pursue innovative ideas
- Limited vision, mission and understanding of underlying challenges for digital transformation
- Rigid hierarchical structures and processes on innovation

Data and infrastructure barriers:

- Lack of IT infrastructure investment
- Lack of available, accessible datasets
- Lack of mature data organisation, data management and data governance practices

Human resource capacity: AI and digital transformation – related competency gaps

- Low investment into digital, data analysis, IT and AI skills
- Lack of adaptation of procured digital technology and digital systems to fit the organisation's unique context.

3. Applied Study:

This study seeks to apply the practical dimension to the case of the Public Treasury of Tiaret Province by examining the level of digitalization and its associated mechanisms within treasury services, and by assessing the extent to which this digital transformation contributes to improving financial performance. To achieve this, a structured questionnaire was distributed to officials and employees involved in financial operations, with the aim of collecting reliable field data that would provide a clear understanding of the relationship between the variables under investigation.

3.1 Study variables:

This study aims to investigate the potential contribution of the independent variable, digitalization, to influencing the dependent variable, the financial performance of the Public Treasury. To measure these variables, a structured questionnaire was developed and distributed. The questionnaire consists of two main sections: the first collects demographic and occupational information from respondents, while the second focuses on the core constructs of the research. The analytical portion includes 22 items divided into five key areas: (1) technological infrastructure, (2) financial information systems, (3) digital human resources, (4) digital governance, and electronic control, with each area assessed through four statements. Additionally, there is a separate dimension evaluating how digitalization impacts the enhancement of financial performance, comprising six statements. All items were rated on a five-point Likert scale, enabling the researcher to quantify respondents' perceptions and facilitate detailed statistical analysis of the performance of the Public Treasury.

Table 1. Five-Point Likert Scale and Its Corresponding Interpretation

Response Category	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Score	1	2	3	4	5
Score Range	1.00 – 1.80	1.81 – 2.60	2.61 – 3.40	3.41 – 4.20	4.21 – 5.00
Interpretation of Importance	Very Low Level of Agreement	Low Level of Agreement	Moderate Level of Agreement	High Level of Agreement	Very High Level of Agreement

Source: Prepared by the researchers based on the five-point Likert scale.

3.2 Population and Sample of the Study:

The study population comprises employees of the Public Treasury of Tiaret Province who are directly involved in digital procedures and financial operations, as they are best positioned to evaluate the impact of digitalization on financial performance. A purposive sample of 30 employees was drawn from this population, selected based on the relevance of their job functions to the research objectives. All valid questionnaires

were recovered and included in the analysis, ensuring that the sample is representative of the institution and providing a solid basis for deriving reliable conclusions regarding the effect of digitalization on financial performance.

3.3 Descriptive Analysis of Demographic Variables:

The following is a presentation of the study sample according to personal characteristics and traits:

Table 2. Descriptive Results of the Study Sample

Demographic Indicator	Category	Frequency	Percentage(%)
Gender	Male	17	56.7
	Female	13	43.3
Educational Level	Secondary	4	13.3
	Bachelor's	12	40.0
	Master's	10	33.3
	Doctorate	4	13.3
Work Experience	1–5 years	6	20.0
	6–10 years	6	20.0
	11–15 years	10	33.3
	More than 15 years	8	26.7

Source: Prepared by the researcher based on SPSS version 28 results

The demographic analysis indicates a balanced study sample, with 56.7% males and 43.3% females, ensuring adequate gender diversity. Most respondents hold university degrees (73.3%), reflecting sufficient expertise to assess digitalization, while employees with 11 years of experience or more ($\approx 60\%$) provide reliable insights into both traditional and digital financial practices within the Public Treasury.

3.4 Statistical Analysis Methods:

In the first stage, descriptive statistical measures were employed to describe the characteristics of the study sample, including frequencies, percentages, arithmetic means, and standard deviations.

At a subsequent stage, the normality of the data distribution was assessed using the Shapiro-Wilk test, in order to determine whether the data follow a normal distribution. The results indicated that the data are normally distributed at the significance level of (0.05), which justified the use of parametric statistical methods in the analysis.

Accordingly, the Pearson correlation coefficient was applied to

measure the strength and direction of the relationship between digitalization and financial performance. This test contributed to identifying the nature of the relationship between the study variables.

Furthermore, linear regression analysis was employed to examine the impact of digitalization variables on financial performance and to test the study hypotheses.

In addition, Cronbach's Alpha coefficient was used to assess the reliability of the research instrument and its internal consistency.

3.5 Questionnaire Reliability Coefficient:

Cronbach's alpha coefficient was employed to calculate the reliability coefficient. Table No. 03 illustrates this:

Table 03. Indicates the reliability values for the study questionnaire employing Cronbach's alpha method

Axis title	Number of Items	Reliability Coefficient Cronbach's Alpha	Validity Coefficient
Electronic Management	16	0.87	0.93
Financial Performance	06	0.79	0.89
Questionnaire as a whole	22	0.90	0.95

Source: Prepared by the researcher based on SPSS version 28 results

The Cronbach's Alpha values (0.87 for electronic management, 0.79 for financial performance, and 0.90 for the overall questionnaire) indicate a high level of reliability and strong internal consistency of the measurement instrument. The average Alpha (0.83) further confirms the stability and coherence of the tool, demonstrating its suitability for analyzing the relationship between digitalization and financial performance.

4. Descriptive Analysis of Sample Responses:

4.1 Data Analysis Regarding the Item of Digitalization by the Sample Individuals:

To examine the assessment of digitalization within the public treasury, the digitalization variable was analyzed across its four dimensions. The following sections provide a detailed analysis of each dimension.

4.1.1 Analysis of the First Dimension: Technological Infrastructure:

This section analyzes the items associated with the first dimension, Technological Infrastructure, in order to identify the general trends and variations among the sample individuals. The following table presents the percentages, arithmetic mean, and standard deviation related to this

dimension.

Table 04. Percentages, Mean, and Standard Deviation for the Technological Infrastructure Dimension.

N	Item	Mean	SD	Item trend	Relative Importance (%)	Ranking
1	The public treasury possesses electronic devices and technological equipment capable of efficiently processing financial data.	3.85	0.52	High Agreement	77	2
2	The treasury provides a range of digital systems and professional software that support financial operations.	4.05	0.48	High Agreement	81	3
3	The treasury utilizes computer applications that assist in carrying out daily financial tasks.	3.95	0.41	High Agreement	79	1
4	The treasury regularly updates its systems, software, and digital equipment according to operational needs.	3.70	0.63	High Agreement	74	4
Overall Dimension Mean		3.89	0.33	High Agreement	77.8	—

Source: Prepared by the researcher based on SPSS version 28 results

The technological infrastructure dimension recorded a high level of agreement, with an overall mean of 3.89 and relative importance of 77.8%, indicating a solid digital foundation supporting the Treasury's digital transformation. Professional software usage ranked highest (mean = 3.95; RI = 79%), reflecting strong reliance on digital tools in financial operations, while system updating ranked lowest (mean = 3.70; RI = 74%), highlighting the need for greater investment in modernization. Overall, the results confirm the effectiveness of existing infrastructure, alongside the necessity of continuous technological upgrades.

4.1.2 Analysis of the Second Dimension: Financial Information Systems:

This section examines the items related to the second dimension, Financial Information Systems, in order to identify trends and variations in the responses of the sample individuals. The following table presents the distribution of responses, including percentages, arithmetic means, and

standard deviations, reflecting the evaluation of this dimension by the sample.

Table 5. Percentages, Mean, and Standard Deviation for the Financial Information Systems.

N o.	Item	Mean	SD	Item trend	Relative Importance (%)	Ranking
1	The financial information systems used in the Treasury contribute to improving the management and processing of financial operations.	3.90	0.56	High Agreement	78	1
2	Digital systems help reduce errors in entering financial data and information.	3.75	0.70	High Agreement	75	3
3	The financial information systems provide accurate data that support financial decision-making.	3.82	0.46	High Agreement	76	2
4	Financial databases are characterized by integration and connectivity, which facilitate rapid access to information.	3.65	0.67	High Agreement	73	4
Overall Dimension Mean		3.78	0.41	High Agreement	75.5	—

Source: Prepared by the researcher based on SPSS version 28 results.

The Financial Information Systems dimension showed a high level of agreement, with an overall mean of 3.78, standard deviation of 0.41, and relative importance of 75.5%, indicating the effectiveness of digital systems in improving treasury operations and reducing errors. Enhancing financial processing recorded the highest relative importance (78%; mean = 3.90), while database integration ranked lowest (73%; mean = 3.65), highlighting the need to improve information connectivity. Overall, financial information systems enhance data quality and support financial decision-making, though stronger integration could further improve efficiency.

4.1.3 Analysis of the Third Dimension: Digital Competence of Human Resources:

This section focuses on the items related to the third dimension, Digital Competence of Human Resources, aiming to identify the trends and variations in the responses of the sample individuals. The following table presents the distribution of responses, including percentages, arithmetic

means, and standard deviations, reflecting the assessment of this dimension by the sample.

Table 5. Percentages, Mean, and Standard Deviation for the Digital Competence of Human Resources.

No.	Item	Mean	S D	Item trend	Relative Importance (%)	Ranking
1	Treasury employees possess sufficient digital skills to use modern financial systems.	3.45	0.72	High Agreement	69	4
2	The treasury provides regular training courses to enhance employees' technical and digital skills.	3.55	0.74	High Agreement	71	3
3	The technical department provides continuous support to help employees handle digital systems.	3.60	0.71	High Agreement	72	2
4	Employees strive to continuously develop their digital skills to keep pace with the evolution of electronic work.	3.78	0.66	High Agreement	75	1
Overall Dimension Mean		3.59	0.57	High Agreement	71.75	

Source: Prepared by the researcher based on SPSS version 28 results.

The results for human resource digital competence show a relatively high level of agreement, with an overall mean of 3.59, standard deviation of 0.57, and relative importance of 71.75%, indicating an acceptable level of digital skills among treasury employees. Employees' willingness to develop digital skills recorded the highest value (mean = 3.78; RI = 75%), followed by technical support (RI = 72%) and training programs (RI = 71%), while basic digital skills ranked lowest (RI = 69%). Overall, the findings highlight the need to strengthen training and human resource development to achieve fully effective digitalization.

4.1.4 Analysis of the Fourth Dimension: Digital Governance:

Finally, the fourth dimension, Digital Governance, is analyzed to understand how the sample individuals perceive the effectiveness of governance-related digital mechanisms. The following table summarizes the responses, providing percentages, arithmetic means, and standard deviations, thereby reflecting the overall evaluation of digital governance by the sample.

Table 06. Percentages, Mean, and Standard Deviation for the Digital Governance.

No.	Item	Mean	SD	Item trend	Relative Importance (%)	Ranking
1	Digitalization contributes to strengthening internal control over financial operations in the public treasury.	3.88	0.52	High agreement	77	1
2	Digital systems provide a high level of information security and protection of financial data.	3.75	0.60	High agreement	75	3
3	Digitalization helps enhance transparency and prevent manipulation or errors in financial data.	3.85	0.49	High agreement	77	4
4	Electronic control contributes to the rapid detection of errors and financial irregularities.	3.82	0.39	High agreement	76	2
	Overall Dimension Mean	3.82	0.39	High Agreement	76.3	

Source: Prepared by the researcher based on SPSS version 28 results.

The results of the digital governance and electronic control dimension show a high level of agreement, with an overall mean of 3.82,

standard deviation of 0.39, and relative importance of 76.3%, indicating the strong role of digitalization in enhancing financial oversight within the Public Treasury. Internal control and transparency recorded the highest relative importance (77%), while electronic error detection also showed strong results (mean = 3.82; RI = 76%). In contrast, information security ranked lowest (75%), highlighting the need to strengthen digital protection measures. Overall, digitalization contributes significantly to transparency, error detection, and the integrity of financial operations.

4.1.5 Analysis of the Data Related to the Evaluation by the Sample Individuals of the Impact of Digitalization on Financial Performance in the Treasury:

Financial performance was measured through a single dimension, and the results obtained are presented in the following table:

Table 7. Percentages, Mean, and Standard Deviation of the Impact of Digitalization on Financial Performance in the Treasury.

No.	Item	Mean	SD	Item trend	Relative Importance (%)	Ranking
1	Digitalization contributed to reducing operational costs and improving the efficiency of financial resource utilization within the public treasury.	3.82	0.58	High Agreement	76	4
2	Digitalization accelerated the completion of financial operations and enhanced the effectiveness of financial program implementation.	3.85	0.54	High Agreement	77	2
3	Digital systems helped improve revenue collection processes and strengthened the treasury's ability to achieve its financial objectives.	3.78	0.63	High Agreement	75	1
4	Digitalization contributed	3.90	0.50	High	78	6

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	to providing accurate and reliable financial data that supports decision-making processes.			Agreement		
5	Digitalization reinforced financial discipline within the treasury and reduced financial and accounting errors.	3.76	0.61	High Agreement	75	3
6	Digital systems improved the quality of financial reports in terms of accuracy, timeliness, and ease of access to information.	3.80	0.57	High Agreement	76	5
Overall Mean		3.82	0.41	High Agreement	76.2	

Source: Prepared by the researcher based on SPSS version 28 results.

The results of this dimension showed the highest level of agreement, with an overall mean of 3.82, a standard deviation of 0.41, and a relative importance of 76.2%, reflecting the strong positive impact of digitalization on the treasury's financial performance. The item related to providing accurate financial data recorded the highest relative importance (78%) with a mean of 3.90, followed by financial report quality (mean = 3.80; RI = 76%), cost reduction and efficient resource utilization (mean = 3.82; RI = 76%), and improved revenue collection (mean = 3.78; RI = 75%). These findings confirm that digitalization significantly enhances data quality, reduces costs, and improves the efficiency of financial operations within the treasury.

5. Presentation and Discussion of the Study Results

5.1 Hypothesis Testing:

5.1.1 Hypothesis 1:

There is no statistically significant role at the 0.05 significance level of technological infrastructure in improving the financial performance of the public treasury in Tiaret Province.

Table 8. simple linear regression to Test the Relationship between Technological Infrastructure and Financial Performance

Variable	R	R ²	Value t	Sig.
Technological Infrastructure	0.62	0.38	6.12	0.000

Source: Prepared by the researcher based on SPSS version 28 results.

The results indicate a strong positive relationship between technological infrastructure and financial performance ($R = 0.62$), with the infrastructure explaining 38% of the variance in performance ($R^2 = 0.38$). The relationship is statistically significant ($t = 6.12$; $\text{Sig} = 0.000 < 0.05$), highlighting that investment in technological infrastructure enhances financial processing quality, reduces errors, and significantly improves the financial performance of the Public Treasury.

5.1.2 Hypothesis 02:

There is no statistically significant role at the 0.05 significance level for financial information systems in improving the financial performance of the public treasury in Tiaret Province.

Table 9. Simple Linear Regression to Test the Relationship between Financial Information Systems and Financial Performance

Variable	R	R ²	Value t	Sig.
Financial Information Systems	0.59	0.35	5.84	0.000

Source: Prepared by the researcher based on SPSS version 28 results.

The results indicate a strong positive correlation between financial information systems and improved financial performance, with a correlation coefficient ($R = 0.59$). The coefficient of determination ($R^2 = 0.35$) shows that the effectiveness of digital financial systems explains 35% of the variation in financial performance. Moreover, the significance level ($\text{Sig} = 0.000 < 0.05$) confirms the statistical significance of this relationship, highlighting the key role of financial information systems in enhancing financial decision-making quality, reducing accounting errors, and strengthening the overall financial performance of the Public Treasury.

5.1.3 Hypothesis 03:

There is no statistically significant role at the 0.05 significance level for the digital competence of human resources in improving the financial

performance of the Public Treasury in Tiaret Province.

Table 10. Simple Linear Regression to Test the Relationship Between Digital Competence of Human Resources and Financial Performance

Variable	R	R ²	Value t	Sig.
Digital Competence of Human Resources	0.54	0.29	5.10	0.000

Source: Prepared by the researcher based on SPSS version 28 results.

The results indicate a moderate to strong relationship between employees' digital skills and financial performance, with a correlation coefficient ($R = 0.54$). The coefficient of determination ($R^2 = 0.29$) shows that digital competencies explain 29% of the variation in financial performance. Moreover, the significance level ($\text{Sig} = 0.000 < 0.05$) confirms the statistical significance of this relationship, highlighting the importance of investing in digital training for human resources to improve financial accuracy, reduce errors, accelerate transactions, and enhance overall financial performance efficiency.

5.1.4 Hypothesis 04:

There is no statistically significant role at the 0.05 significance level for digital governance in improving the financial performance of the Public Treasury in in Tiaret Province.

Table 11. Simple linear regression to test the relationship between digital governance, electronic control, and financial performance.

Variable	R	R ²	Value t	Sig.
Digital Governance	0.66	0.43	6.75	0.000

Source: Prepared by the researcher based on SPSS version 28 results.

The statistical results reveal a strong positive correlation between digital governance and financial performance, with a correlation coefficient ($R = 0.66$). The coefficient of determination ($R^2 = 0.43$) indicates that digital governance explains 43% of the variation in financial performance, representing the highest explanatory power among the dimensions. The t-value (6.75) and the significance level ($\text{Sig} = 0.000 < 0.05$) confirm the statistical significance of this relationship, highlighting the crucial role of

electronic control mechanisms, transparency, and financial data protection in improving financial oversight and overall treasury performance.

5.1.5 the General Hypothesis:

There is a statistically significant relationship between the dimensions of digitalization and financial performance in the Public Treasury of Tiaret Province.

Table 12. Multiple regression analysis to examine the relationship between the four dimensions of digital transformation and financial performance

Independent variable	Dependent variable	R	R ²	Value t	Sig.
digital transformation	Financial performance	0.74	0.55	6.54	0.000

Source: Prepared by the researcher based on SPSS version 28 results.

The results indicate a strong positive relationship between overall digital transformation and financial performance, with a correlation coefficient ($R = 0.74$). The coefficient of determination ($R^2 = 0.55$) shows that digital transformation across its four dimensions explains 55% of the variation in financial performance of the Public Treasury. Moreover, the significance level ($\text{Sig} = 0.000 < 0.05$) confirms the strong explanatory power of the model, highlighting the central role of technological, informational, human, and governance dimensions in improving financial performance through enhanced operational efficiency, error reduction, and improved financial reporting quality.

6. CONCLUSION:

Based on both the theoretical and empirical frameworks, this study concludes that digitalization has become an indispensable strategic option for improving the financial performance of public institutions in light of growing challenges related to efficiency, transparency, and the speed of financial operations. The empirical results demonstrate that digitalization represents an effective mechanism for enhancing the financial performance of the public treasury in the Tiaret province by increasing operational efficiency, reducing financial errors, and strengthening transparency and control.

The statistical analysis further confirms that the four dimensions of

digitalization—technological infrastructure, financial information systems, digital competencies of human resources, and digital governance—contribute at varying levels to improving financial performance, with digital governance emerging as the most influential dimension. Accordingly, the success of digital transformation in public finance depends not only on the availability of technological infrastructure but also on the effective integration of technology, qualified human resources, and sound governance systems to ensure sustainable financial performance within the public treasury of the Tiaret province.

In light of these results, the field study of this research paper elucidates the following points:

- There is a statistically significant effect of technological infrastructure on improving the financial performance of the public treasury in the Tiaret province.
- There is a statistically significant effect of financial information systems on enhancing the quality of financial performance and the accuracy of accounting processing.
- There is a statistically significant effect of the digital competence of human resources on improving the effectiveness of financial operations within the public treasury.
- There is a statistically significant effect of digital governance on strengthening transparency, control, and improving financial performance.
- The results confirm that digitalization, through its various dimensions, contributes in an integrated manner to improving financial performance, with varying levels of influence, where digital governance and technological infrastructure emerged as the most influential factors.

Recommendations :

Based on the findings of the study, the following recommendations are proposed:

- Strengthen senior management support for digital transformation within the Public Treasury by providing adequate financial and organizational resources.
- Increase investment in technological infrastructure and continuously update financial systems and software in line with recent digital developments.
- Develop financial information systems and enhance database integration to ensure data accuracy and rapid access.
- Enhance continuous training and digital skill development of human resources to ensure effective use of digital systems.
- Activate digital governance and electronic control mechanisms to reduce financial errors, enhance transparency, and improve the quality of financial decision-making.

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