
Assessing the readiness of the tax administration in Algeria for digital transformation and its impact on its effectiveness - El Eulma Tax Center as a model -

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Abstract:

This study assesses the readiness of the Algerian tax administration for digital transformation and its impact on the effectiveness of this process. The research is based on a field investigation conducted at the Neighborhood Tax Center in El Eulma. A descriptive-analytical methodology was adopted, using 40 questionnaires analyzed through SPSS and a field interview with the center's director. The findings indicate that the Algerian tax administration demonstrates a moderate level of readiness for digital transformation and it also reveals that the current tax legislation requires updating to keep pace with digital developments. Accordingly, the study recommends improving digital infrastructure, expanding training programs for tax administration staff, and updating the legislative framework to accelerate digital transformation and achieve the desired objectives.

Keywords: Digital transformation, digital infrastructure, tax administration, tax legislation, Tax Center El Eulma.

Jel Classification Codes: H20; H21; O33.

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I- Introduction:

Over the past decades, the world has witnessed profound transformations as a result of the digital revolution. Tax administration is among the sectors most affected by these developments, given its essential role in securing public financial resources and ensuring tax fairness. For this reason, many tax authorities have started adopting digital tools to simplify procedures, improve performance, and enhance transparency.

In Algeria, public authorities launched several digital transformation programs under the "Digital Algeria 2030" vision. These initiatives have included the restructuring of the administrative organization of public services and the launch of digital platforms such as "Moussahamatic" and "Jibayatic". Their main objective is to improve the relationship with taxpayers by facilitating tax filing and payment.

However, the success of these efforts depends largely on the readiness of the tax administration itself. This readiness involves the availability of digital infrastructure, the ability of human resources to adapt, the adequacy of financial means, and the existence of supportive legislation and political commitment within an enabling institutional environment.

The digitalization of public administration and digital transformation in Algeria have attracted the attention of several studies that examined implementation requirements, associated challenges, and sectoral experiences. These studies have also highlighted the contribution of digital transformation to improving tax performance (Djedouani & Ladi, 2025; Elbelli & Oudjhih, 2021; Guemar, 2023; Zergoune et al., 2025).

Nevertheless, the readiness of the Algerian tax administration to meet the requirements of this transformation remains insufficiently studied.

1. Research Problem

Like other sectors, tax administration has not been isolated from the global shift toward digital transformation the world has witnessed in the recent years. This shift requires governments to modernize their practices in order to improve efficiency. Algeria has made serious efforts to develop its tax system in line with digital transformation requirements. Nevertheless, significant challenges still affect the implementation of digital solutions within the tax administration.

Accordingly, the main research question of this study is:

To what extent is the Algerian tax administration ready for digital transformation, and what is the impact of this readiness on its effectiveness?

This question leads to several sub-questions:

1. How does tax administration readiness contribute to improving the quality of tax services?
2. Does readiness influence the speed and simplicity of tax procedures?
3. Is there a relationship between readiness and taxpayer satisfaction?

2. Research Hypotheses

The study adopts the following main hypothesis:

Tax administration readiness has an effect on the effectiveness of digital transformation in the tax sector.

This hypothesis is divided into the following sub-hypotheses:

- Tax administration readiness affects the quality of tax services.
- Tax administration readiness affects the ease and speed of tax procedures.
- Tax administration readiness affects taxpayer satisfaction.

3. Objectives of the Study

This study aims to assess the readiness of the Algerian tax administration for digital transformation through several key dimensions, including:

- Evaluating the digital infrastructure of the tax administration, particularly the availability of technical systems and secure networks.
- Assessing the preparedness of employees in tax centers to adopt modern technologies in daily work.
- Analyzing legislative challenges that may hinder digital transformation in the Algerian tax system.
- Exploring the future perspective of digital transformation and the level of acceptance among employees.
- Providing practical recommendations to improve readiness and ensure the success of digital reforms in the tax system.

4. Research Methodology

This study is based on the descriptive and analytical approach. It seeks to evaluate the readiness of the tax administration for digital transformation and measure its impact on effectiveness. Data were collected through a questionnaire distributed to employees of the El Eulma Local Tax Center. In addition, an interview was conducted with the center director to support the quantitative findings. The data were analyzed using SPSS Version 26, applying statistical methods appropriate to the objectives and hypotheses of the study.

II- Literature Review

Modernization and digital transformation in tax administration have become topics of growing interest in economic and administrative research. This interest is mainly linked to the challenges faced by countries in improving the efficiency of tax systems and strengthening their capacity to collect tax revenues. Like many other countries, Algeria has witnessed in recent years noticeable progress in adopting modern technologies across different sectors within the framework of the "Digital Algeria 2030" vision, particularly in the field of tax administration. The state seeks to enhance the effectiveness of the tax system in order to increase public treasury revenues and reduce tax evasion.

Academic studies in this area have addressed various issues, focusing largely on how digital transformation can be used to improve performance in tax administration. These studies have also highlighted the technical and human difficulties that accompany the implementation of digital tax systems in Algeria. In this context, training and the development of human competencies appear as essential factors for the success of this transformation, alongside the importance of adequate digital infrastructure.

This chapter aims to review the most relevant studies in a systematic manner. The literature is organized into coherent thematic axes in order to identify the main research trends and clarify the research gap that the present study intends to address.

1. Algeria's Readiness for Digital Transformation

The study conducted by (Kheloufi et al., 2020) evaluated Algeria's readiness to enter the digital economy through the analysis of several indicators, such as information and communication technologies, global innovation, and network readiness. The study reported progress in certain areas, including the number of mobile phone and internet users. However, Algeria remains behind neighboring countries, especially in indicators related to innovation and technological development.

The study recommended the development of digital infrastructure and the strengthening of technological investments in order to accelerate digital transformation. It also emphasized the need for effective governmental strategies to stimulate innovation, enhance cooperation between the public and private sectors, and expand e-government applications so that Algeria can keep pace with global developments and better serve citizens and institutions.

2. The Impact of Digitalization on Tax Collection in Algeria

In a study by (Hadjar, 2024), the role of modernizing tax administration in strengthening tax revenues during the period 2019–2023 was examined. The study discussed how recent updates in the Algerian tax system contributed to improving tax collection. The findings showed that tax control through digital systems played an important role in increasing public revenues, particularly in the oil sector, which represents the largest source of public treasury income in Algeria. The study also highlighted the importance of electronic payment and digital monitoring in enhancing the efficiency of the tax system. It recommended expanding the use of digital systems and raising awareness of digital technologies among both employees and taxpayers to ensure the success of this transformation.

On the other hand, (Guennas & Zine, 2021) investigated the impact of implementing electronic tax declarations on tax collection in Algeria. The study adopted an exploratory approach based on a questionnaire aimed at collecting opinions on the role of electronic filing in improving tax collection efficiency. The results indicated that electronic declarations contributed positively to improving tax collection rates. At the same time, the study pointed to challenges related to limited competencies and difficulties in using digital technology.

The study recommended expanding electronic systems in general, particularly electronic payment systems, and improving digital infrastructure to meet taxpayers' needs.

In a related context, (Merzougua & Dib, 2025) carried out a field study on the application of digitalization in the tax administration of Illizi Province. Using questionnaires distributed to tax center employees, the study found that digitalization significantly helped reduce tax collection costs. However, it also revealed major challenges, including weak technical infrastructure and a shortage of human competencies. The study recommended investing in infrastructure development and employee training in order to maximize the benefits of digital transformation.

3. Digitalization Challenges in Algeria

(Naass & Medjdoub, 2023) examined the challenges of digitalization in Algerian public institutions, with a particular focus on tax administration. Using the descriptive and analytical approach, the study showed that

significant obstacles continue to face digitalization in the tax sector. These include weak human competencies and difficulties in adapting digital systems to the local context.

The authors stressed the importance of focusing on staff training and improving digital infrastructure to support digital transformation in the tax sector.

Similarly, (Ouali et al., 2024) focused on the experiences of Arab countries while highlighting the Algerian case of digital transformation in the tax sector. The study adopted a comparative approach to analyze how Arab countries have introduced digital tax systems. The findings indicated that digital transformation contributed to improving efficiency and transparency in tax systems. However, challenges related to infrastructure and staff training remain important issues. The study recommended increasing investment in digital infrastructure and developing training programs to ensure the success of digital transformation in Algeria.

4. Arab Experiences in Digital Transformation

Within the Arab context, the study conducted by (Al-Mabrouk, 2024) in Libya highlighted the role of digital transformation in reducing tax evasion. The findings showed that electronic tax auditing contributed to strengthening tax control, improving compliance levels, and reducing opportunities for tax evasion. The study recommended developing advanced electronic auditing systems and enhancing cooperation between tax authorities and financial institutions.

In Sudan, (Ibrahim Elfadil, 2024) proposed a framework for electronic performance in tax institutions in order to achieve tax equity and economic development. The study found that digital transformation helped enhance tax justice and increase revenues, which supports economic development. It recommended providing a supportive legislative environment and encouraging a culture of innovation within tax institutions.

In Egypt, (Azzam et al., 2023) showed that digital transformation had a positive impact on the efficiency of tax administration performance. The study noted a reduction in the time required to complete tax procedures and an increase in taxpayer satisfaction. It recommended continuing the development of electronic systems and strengthening continuous employee training.

5. International Studies Focused on Theoretical Models

At the international level, (Bassey et al., 2022) presented a conceptual framework for digital tax administration by identifying the key factors influencing the success of digital tax systems. The study was based on a systematic review of 96 scientific publications on digital transformation in tax administration.

These publications included several widely used theoretical models, such as the Technology Acceptance Model, the Theory of Planned Behavior, the Unified Theory of Acceptance and Use of Technology, and the Information Systems Success Model. The study also referred to service quality models, trust theories, and innovation diffusion theories.

The authors emphasized that the success of digital tax systems does not depend solely on technology. It also requires an understanding of the surrounding social, political, and economic context. They highlighted the importance of integrating all stakeholders, including taxpayers, tax authorities, and international institutions, to ensure system effectiveness.

In the United Kingdom, (Hesami et al., 2024) emphasized the importance of electronic invoicing and pre-filled tax returns in improving tax compliance. The study noted that these tools helped reduce compliance and administrative costs. It recommended expanding their use and providing training and support for taxpayers.

6. Recent International Studies

(Belahouaoui & Attak, 2024) conducted a systematic study using textual analysis of 62 scientific papers examining the impact of artificial intelligence and blockchain technologies on tax compliance.

The study concluded that digitalization improves compliance efficiency and reduces tax evasion, particularly through electronic invoicing, intelligent analytical tools, and simplified procedures for small and medium enterprises.

The study also stressed the need for clear regulatory frameworks governing the use of artificial intelligence, as well as the importance of supporting human capacities to ensure the proper integration of these technologies in tax administrations within emerging economies. In addition, (Umbet et al., 2025) carried out a quantitative analysis examining the relationship between governmental digital readiness and tax performance.

The results confirmed a strong positive correlation between e-government development and tax revenue levels relative to GDP.

In contrast, the cybersecurity readiness indicator showed an indirect effect. It was not directly associated with higher revenues, yet it remains crucial for ensuring sustainability and protecting digital systems from disruptions and cyberattacks. The study recommended adopting technological auditing frameworks to enhance digital governance and risk management.

In an applied study in Peru, (Peñaranda Iglesias, 2025) used the OECD Digital Maturity Model to assess tax administration readiness. The findings showed that the administration achieved a "developing" level in most technical dimensions, while it remained at a "basic" level in governance. This suggests that technological progress may exceed the institutional and organizational maturity required for successful digital transformation.

The study also highlighted the importance of system stability, usability, taxpayer data rights, transparency, and privacy protection in the context of increasing reliance on automated data processing.

Despite the attention given to modernization and digital transformation in tax administration, a research gap remains regarding the assessment of the Algerian tax administration's readiness for digital transformation. While previous studies focused mainly on the effectiveness of digital systems in improving tax collection and combating tax evasion, they did not sufficiently examine the degree of preparedness in terms of technical infrastructure, staff training, and the ability to address the broader challenges of digital transformation.

Most studies also did not provide a comprehensive analysis of Algerian tax institutions, the readiness of employees and taxpayers to adapt to digital systems, or the organizational and technical issues that may arise, such as cybersecurity concerns and the protection of personal data.

Therefore, the topic of tax administration readiness for digital transformation in Algeria remains insufficiently explored in the existing literature, which opens the way for further research in this direction.

7. Research Gap

This study seeks to address the research gap resulting from the limited comprehensive understanding of digital transformation requirements within tax administration. This limitation appears through interconnected technical, human, and legislative dimensions.

- **The technical dimension:** concerns the availability of modern digital systems, network quality, and cybersecurity measures within tax administration.
- **The human dimension:** focuses on the level of training and digital skills among tax administration employees, as well as their readiness to adapt to the new technologies enabled by digital transformation.
- **The legislative dimension:** examines the challenges imposed by tax regulations, particularly standards related to personal data protection and privacy laws.

Accordingly, the research gap lies in the absence of an integrated approach that brings these three dimensions together within a single analytical framework. Such an approach is necessary to understand the complex challenges facing tax administration in achieving an effective and sustainable digital transformation, and to provide practical recommendations that support the success of this process.

III- Digital Transformation in Tax Administration

Digital transformation in tax administration represents a strategic orientation that aligns with global technological developments. It aims to modernize traditional methods of tax collection and service delivery to citizens. Through digitalization, tax transactions become faster and more accurate, allowing individuals and companies to fulfill their tax obligations electronically without the need for paper-based procedures.

This transformation also enhances transparency and oversight, while enabling the creation of comprehensive databases that improve tax-related decision-making. By adopting digital tools, tax administrations are better positioned to address tax evasion challenges and support economic growth through modern and efficient technologies. Therefore, digital transformation constitutes a fundamental pillar for building a modern tax administration capable of meeting the requirements of contemporary society.

In order to assess the readiness of the Algerian tax administration for digital transformation, it is necessary first to examine the concept and objectives of digital transformation in tax administration. This is followed by a discussion of its dimensions and the challenges associated with its implementation.

1. Concept of Digital Transformation in Tax Administration

Digital transformation in tax administration refers to the use of modern digital technologies and data-based systems to automate, improve, and develop processes related to tax collection, reporting, payment, and compliance, with the aim of increasing efficiency, transparency, and accessibility for both tax authorities and taxpayers (OECD, 2025).

It has also been defined as the use of technology in managing the tax system and collecting taxes by both government entities and private sector actors, particularly companies and certified accountants. This includes the use of communication and computing technologies to prepare and submit tax returns electronically,

thereby enhancing accuracy, speed, and time efficiency. This process relies entirely on information and communication technologies(Hammouche, 2024).

Furthermore, digital transformation in tax administration has been described as the adoption of modern digital technologies and electronic platforms across all stages of the tax process declaration, payment, monitoring, and communication in order to modernize management methods, simplify procedures, raise taxpayer awareness, and enhance efficiency and transparency in the relationship between the administration and taxpayers. Its objective is to deliver high-quality services, increase tax collection, and combat tax evasion(Bouchemla & Slimani, 2023).

Based on these definitions, digital transformation in tax administration can be understood as a transition from traditional paper-based and bureaucratic practices to integrated digital systems built on modern technologies and databases. This transition seeks to simplify declaration and payment services, improve collection efficiency, strengthen transparency, and expand communication channels between the administration and taxpayers, thereby enhancing tax compliance and reducing tax evasion.

2. Importance of Digital Transformation in Tax Administration

Digital transformation contributes significantly to improving the efficiency of tax administration. It reduces transaction time and lowers costs associated with manual procedures. A study conducted in Denmark showed that the implementation of electronic invoicing led to a noticeable reduction in tax evasion and an increase in tax compliance(OECD, 2025).

Digitalization also promotes transparency in tax transactions and improves trust between taxpayers and the tax administration, which in turn supports higher compliance levels.

The main advantages of digital transformation in tax administration can be summarized as follows (Hammouche, 2024):

- Acceleration of tax procedures: Digitalization reduces the time required to complete registrations and tax declarations.
- Reduction of human error: Minimizing manual intervention decreases the likelihood of processing errors.
- Lower operational costs: Digital transactions reduce reliance on paper, printing, storage, and document archiving.
- Reduction of governance and audit costs: Digital systems enhance accuracy and transparency, lowering monitoring and verification expenses.
- Combating tax fraud and evasion: Improved monitoring and transparency strengthen trust between citizens and the administration.
- Enhancing tax compliance: Easier interaction with digital systems encourages adherence to tax regulations.
- Improved analysis and decision-making: Performance indicators and in-depth analyses of taxpayer behavior support public policy decisions.

- Effective management of large datasets: Digital systems allow structured storage and processing of large volumes of data, which is essential for modern tax policy design.

3. Requirements for Digital Transformation in Tax Administration

The success of digital transformation in tax administration depends on the availability of integrated and complementary conditions. Digital infrastructure comes first, followed by qualified human resources, technical means, financial resources, and a supportive legal framework.

3.1. Digital Platforms and Software

Digital platforms are web-based environments that provide access to interactive or non-interactive remote services. Access may be restricted or unrestricted depending on the system (Bouatelli & Lylia, 2022).

In Algeria, digital platforms contribute to economic development by expanding service delivery and promoting financial inclusion. They also create new employment opportunities and enhance institutional competitiveness, thereby supporting sustainable development.

3.2. Qualified Human Resources

The human factor represents the most critical organizational element in digital transformation. Without qualified personnel, tax administration cannot achieve digital transition. Even if other resources are available, resistance to change may hinder progress.

For this reason, it is essential to ensure proper training and high-level qualification of staff, including specialized technical personnel capable of managing digital infrastructure, networks, platforms, and software systems (Ben chohra, 2025).

3.3. Equipment, Devices, and Networks

Successful digital transformation requires modernization of hardware, equipment, and network infrastructure to meet digital service requirements. These elements are essential for the effective implementation of electronic administration systems and their integration with digital technologies such as internet services, mobile communication, intranet, and extranet systems (Amer & Atig, 2025).

3.4. Adequate Financial Resources

Financial resources play a central role in any project, especially long-term investment projects such as digital transformation. Adequate funding is necessary to acquire equipment, operate and maintain systems, address technical issues, and develop or procure software solutions (Amer & Atig, 2025).

3.5. Legal and Regulatory Framework

A supportive legal and regulatory framework is essential for successful digital transformation in tax administration. Legislation must evolve to address technological developments, particularly where traditional tax laws are not aligned with digital requirements.

This framework should regulate the use of digital technologies while ensuring the protection of personal data, defining electronic communication mechanisms between administration and citizens, recognizing digital documents as valid tax evidence, and facilitating electronic procedures in a transparent and fair manner (Rezigat et al., 2025).

Updating regulatory laws and establishing appropriate legislation plays a decisive role in strengthening citizens' trust in digital systems and ensuring sustainability in tax administration reform.

IV- Empirical Framework of the Study

To implement the empirical component of the research, the El Eulma Local Tax Center was selected as the field of study. This choice was justified by two main reasons: first, the center has been among the early adopters of digital transformation tools; second, its employees deal extensively with tax files, which has provided them with practical experience in working with digital systems.

1. Methodological Procedures

In order to ensure accuracy and objectivity in data processing, SPSS Version 26 was used to enter the questionnaire data and analyze it statistically. This made it possible to extract quantitative indicators that support the theoretical part of the study. In addition, the interview findings were analyzed manually in order to complement and support the quantitative results obtained from the questionnaire.

The empirical work was carried out through a set of steps presented under three main components: methodological procedures, discussion of questionnaire results supported by interview findings, and testing the research hypotheses to verify their validity.

In this section, the study population is first presented, followed by the data collection tools, and finally the validity and reliability of the measurement instrument are examined.

1.1. Study Population

The study population consists of employees of the El Eulma Local Tax Center, which includes 42 employees. Two employees were on leave, meaning that 40 employees were actively working during the data collection period. Accordingly, 40 questionnaires were distributed and all were retrieved. Among them, 38 questionnaires were valid for analysis, representing 95% of the total distributed questionnaires. As for the interview, as previously stated, it was conducted with the director of the El Eulma Local Tax Center.

1.2. Data Collection Tools

In order to achieve the objectives of the study and obtain reliable data for hypothesis testing, two main tools were used for data collection:

- **Questionnaire**

A questionnaire was designed and validated by four reviewers and then administered to employees of the El Eulma Local Tax Center. It included questions related to digital infrastructure, employees' digital skills, and their readiness to use digital systems.

The questionnaire was distributed to a sample of 40 employees, and 38 completed questionnaires were retrieved, all of which were valid for analysis. The questionnaire aimed to measure employees' views regarding the readiness of the tax administration for digital transformation and its impact on effectiveness.

Statistical analysis was conducted using SPSS Version 26. Cronbach's Alpha was used to assess the reliability of the measurement instrument.

Respondents' answers were described using means and standard deviations. A one-sample t-test was applied to assess the level of tax administration readiness for digital transformation. In addition, correlation and coefficient of determination measures were used to test hypotheses and evaluate the strength of relationships between variables.

- **Semi-structured Interview:**

To strengthen and support the questionnaire findings, a semi-structured interview was conducted with the director of the El Eulma Local Tax Center on August 12, 2025. The interview lasted approximately two hours and aimed to collect additional information regarding the challenges faced by the system, as well as to evaluate the efficiency of digital infrastructure and the training provided to employees.

This qualitative input contributed to a deeper understanding of the tax administration's readiness for digital transformation and allowed the discussion of issues that may not be fully captured through quantitative responses. As a result, both quantitative and qualitative data were combined to enhance the credibility of the findings.

1.3. Reliability of the Measurement Instrument (Cronbach's Alpha)

Table N°1 : the reliability coefficient of the study instrument (Cronbach's Alpha)

Axis	Axis title	Number of items	Cronbach's Alpha
Axis 1	Readiness of the tax administration for digital transformation	14	0.787
Axis 2	Effectiveness and success of digital transformation	12	0.933
General reliability coefficient		26	0.891

Source: Prepared by the researchers based on SPSS V26 results.

The results shown in Table (01) present the reliability coefficient of the study instrument (Cronbach's Alpha). Axis 1, "Readiness of the tax administration for digital transformation," recorded an alpha value of 0.787, which is considered acceptable and relatively good compared to the minimum threshold commonly adopted in social research (0.60). Axis 2, "Effectiveness and success of digital transformation," recorded a very high alpha value of 0.933, indicating a high level of internal consistency among the items of this axis. In addition, the overall alpha coefficient of the instrument (0.891) confirms that the questionnaire has high reliability and strengthens the credibility of the results derived from this study.

2. Descriptive Analysis

2.1. Gender

Table N°2 : Distribution of the study sample by gender

Gender	Frequency	Percentage	Cumulative percentage
Male	16	42.1%	42.1%
Female	22	57.9%	100.0%
Total	38	100.0%	

Source: Prepared by the researchers based on SPSS V26 results.

The descriptive results related to gender distribution show that females represent the larger share of respondents (57.9%), compared to 42.1% for males. This distribution reflects gender diversity within the study sample, which may allow the exploration of potential differences or patterns across gender in the study findings.

2.2. Educational Level

Table N°3 : Distribution of the study sample by educational level

	Frequency	Percentage	Cumulative percentage
Educational level	10	26.3%	26.3%
Specialized training	1	2.6%	28.9%
Bachelor's degree	18	47.4%	76.3%
Master's degree	9	23.7%	100.0%
Total	38	100.0%	

Source: Prepared by the researchers based on SPSS V26 results.

The descriptive analysis of educational level indicates that nearly half of respondents (47.4%) hold a bachelor's degree, showing a clear concentration at this level within the sample. This is followed by respondents holding the baccalaureate (26.3%). Smaller proportions were recorded for master's degree holders (23.7%) and specialized training (2.6%).

2.3. Age

Table N°4 : Distribution of the study sample by age

Age group	Frequency	Percentage	Cumulative percentage
Under 30	4	10.5%	10.5%
30 to 40	19	50.0%	60.5%
41 to 50	13	34.2%	94.7%
Over 50	2	5.3%	100.0%
Total	38	100.0%	

Source: Prepared by the researchers based on SPSS V26 results.

The descriptive results for age show that the most represented group is 30–40 years, accounting for half of the respondents. This suggests that this age category dominates the sample. The next group is 41–50 years (34.2%). The other age categories show lower representation, with 10.5% under 30 and 5.3% over 50.

2.4. Job Position

Table N°5 : Distribution of the study sample by job position

Job position	Frequency	Percentage	Cumulative percentage
Deputy manager	2	5.3%	5.3%
Tax inspector	22	57.9%	63.2%
Tax officer	13	34.2%	97.4%
IT engineer	1	2.6%	100.0%
Total	38	100.0%	

Source: Prepared by the researchers based on SPSS V26 results.

The descriptive results show that the "Tax inspector" category is the most represented (57.9%), which highlights the importance of this professional group in the context under study. "Tax officer" comes next (34.2%), which also indicates a strong presence of this category. The "Deputy manager" category is limited

(5.3%), while “IT engineer” is the least represented (2.6%), which may be explained by the center’s limited need for this role.

2.5. Years of Experience in the Tax Field

Table N°6 : Distribution of the study sample by years of experience in the tax field

Years of experience	Frequency	Percentage	Cumulative percentage
Less than 3 years	4	10.5%	10.5%
3 to 5 years	7	18.4%	28.9%
5 to 10 years	13	34.2%	63.2%
More than 10 years	14	36.8%	100.0%
Total	38	100.0%	

Source: Prepared by the researchers based on SPSS V26 results.

The descriptive analysis indicates that the largest group consists of respondents with more than 10 years of experience (36.8%), which suggests a substantial presence of advanced experience in the sample. This is followed by respondents with 5–10 years of experience (34.2%). Those with 3–5 years represent 18.4%, while the least represented group is under 3 years (10.5%). Overall, the distribution shows that the sample includes considerable professional experience, which strengthens the reliability of respondents’ views.

3. Discussion of Results and Hypothesis Testing

3.1. Discussion of Results

A five-point Likert scale was used to analyze questionnaire items. The numerical intervals of weighted means were determined by calculating the overall range of the scale values. Accordingly, weighted means were classified into categories reflecting respondents’ attitude levels, which allows a more accurate interpretation of the findings, as shown in Table (07).

Table N°7 : Weighted mean ranges

Weighted mean range	1.00–1.79	1.80–2.59	2.60–3.39	3.40–4.19	4.25–5.00
Level	Strongly disagree	Disagree	Neutral	Agree	Strongly agree

Source: Prepared by the researchers based on(Pallant, 2020).

The following two tables present the means and standard deviations of respondents’ answers for the items of the two questionnaire axes.

Table N°8: Means and Standard Deviations of Respondents’ Answers to the Items of Axis 1

Item	Measure	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation	Result
Statement (01)	Frequency	11	6	3	16	2	2.79	1.398	Neutral
	%	28.9	15.8	7.9	42.1	5.3			
Statement (02)	Frequency	8	11	5	12	2	2.71	1.271	Neutral
	%	21.1	28.9	13.2	31.6	5.3			
Statement (03)	Frequency	4	7	9	7	11	3.37	1.364	Neutral
	%	10.5	18.4	23.7	18.4	28.9			
Statement (04)	Frequency	3	6	16	12	1	3.05	0.957	Neutral
	%	7.9	15.8	42.1	31.6	2.6			

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Digital Infrastructure							2.9803	0.74748	Neutral
Statement (05)	Frequency	2	8	10	15	3	3.24	1.051	Neutral
	%	5.3	21.1	26.3	39.5	7.9			
Statement (06)	Frequency	5	8	13	7	5	2.97	1.219	Neutral
	%	13.2	21.1	34.2	18.4	13.2			
Human Competencies							3.1053	0.93836	Neutral
Statement (07)	Frequency	1	8	13	6	10	3.42	1.177	Agree
	%	2.6	21.1	34.2	15.8	26.3			
Statement (08)	Frequency	1	8	9	11	9	3.5	1.157	Agree
	%	2.6	21.1	23.7	28.9	23.7			
Cybersecurity							3.4605	1.12335	Agree
Statement (09)	Frequency	2	4	17	9	6	3.34	1.047	Neutral
	%	5.3	10.5	44.7	23.7	15.8			
Statement (10)	Frequency	6	10	11	10	1	2.74	1.107	Neutral
	%	15.8	26.3	28.9	26.3	2.6			
Statement (11)	Frequency	1	12	12	8	5	3.11	1.085	Neutral
	%	2.6	31.6	31.6	21.1	13.2			
Statement (12)	Frequency	2	8	4	7	17	3.76	1.364	Agree
	%	5.3	21.1	10.5	18.4	44.7			
Legislative and Regulatory Framework for Digital Transformation							3.2368	0.77098	Neutral
Statement (13)	Frequency	5	3	10	12	8	3.39	1.285	Neutral
	%	13.2	7.9	26.3	31.6	21.1			
Statement (14)	Frequency	2	8	8	11	9	3.45	1.224	Agree
	%	5.3	21.1	21.1	28.9	23.7			
Technical challenges							3.4211	1.09376	Agree
Readiness of the Tax Administration for Digital Transformation (First Axis)							3.0808	0.759055	Neutral

Source: Prepared by the researchers based on SPSS V26 results.

The descriptive analysis of the level of readiness of the tax administration for digital transformation reveals an unclear picture containing several paradoxes, making it difficult to describe the current situation as either successful or unsuccessful. The overall mean (3.08 out of 5) places the administration in the category of partial readiness: it does not reflect total incapacity, but it also does not reach the level of full readiness that should be a prerequisite for an effective digital launch.

One of the key paradoxes is that cybersecurity and data protection received relatively positive ratings (3.42 and 3.50), which reflects a focus on protecting information and prioritizing it. This raises an important question: is it logical to prioritize data protection over physical infrastructure, when infrastructure received a more "Neutral" rating (2.71 for the network and 2.79 for equipment)? The answer emerged from the interview with the center director, who explained that the digital system was implemented from the top of the hierarchy downward; therefore, data protection preceded network and equipment upgrades. He also noted that equipment is updated progressively across neighborhood tax centers nationwide. The director added that the

administration is moving toward adopting a Virtual Private Network (VPN) to improve network quality and overcome recurring interruptions.

At the level of human skills and training, another contradiction appears: employees acknowledge that they possess acceptable digital skills (3.24), yet they simultaneously indicate weakness in training courses (2.97). The center director justified this by stating that despite weak and short training, employees were able to handle the system smoothly due to previous experience especially since most are young. Furthermore, the presence of an IT engineer at the center reduces the burden of resolving technical issues.

On the legislative and regulatory side, results revealed a gap: respondents believe that laws support digital transformation in general (3.34), but they question the adequacy of current tax legislation (2.74). This indicates that although laws support the transformation, they require future amendments to keep pace with changes.

Respondents also considered that weak coordination among government agencies is a real obstacle (3.76 the highest mean within this axis). Since digital systems are fundamentally based on connectivity and integration, the center director confirmed this point, explaining that the tax administration faces difficulties when creating the taxpayer's Tax Identification Number (NIF), because it requires personal information taken from the birth certificate. If the certificate is not provided, or in the case of tax evasion, the administration struggles to collect information. The director emphasized the need to link the tax administration to the civil status database, and also to other administrations such as customs. He added that there is coordination with some entities like the National Center of the Commercial Register (CNRC) (information on traders) and the National Social Insurance Fund for Non-Salaried Workers (CASNOS) (which derives part of its contribution base from tax-administration information). Despite this, inter-administration coordination remains very limited.

Technical challenges were also prominent: employees consider that the system faces technical problems affecting performance (3.39) and that they experience difficulty dealing with errors (3.45). According to the director, errors are handled locally by the IT engineer; if unresolved, the center contacts engineers at the central administration indicating a strong willingness to address system problems.

Finally, despite indications of ongoing infrastructure updates (3.05), these updates have not achieved satisfaction because they are not sufficient to keep up with daily technical challenges. The director stated that although most employees were optimistic about the information system, a small group could not adapt and therefore shows resistance to working with it.

Table N°9: Arithmetic Means and Standard Deviations of Respondents' Answers to the Statements of Axis Two

Item	Measure	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation	Result
Statement (01)	Frequency	3	3	2	16	14	3.92	1.217	Agree
	%	7.9	7.9	5.3	42.1	36.8			
Statement (02)	Frequency	2	3	4	17	12	3.89	1.11	Agree
	%	5.3	7.9	10.5	44.7	31.6			
Statement (03)	Frequency	6	0	5	8	19	4.05	1.138	Agree
	%	15.8	0	13.2	21.1	50			
Statement (04)	Frequency	4	1	6	8	19	3.97	1.325	Agree

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	%	10.5	2.6	15.8	21.1	50			
The first dimension (improving the quality of tax services)							3.9605	1.10363	Agree
Statement (05)	Frequency	0	5	7	14	12	3.87	1.018	Agree
	%	0	13.2	18.4	36.8	31.6			
Statement (06)	Frequency	4	5	1	14	14	3.76	1.364	Agree
	%	10.5	13.2	2.6	36.8	36.8			
Statement (07)	Frequency	2	9	3	13	11	3.58	1.287	Agree
	%	5.3	23.7	7.9	34.2	28.9			
Statement (08)	Frequency	4	9	7	14	4	3.13	1.212	Neutral
	%	10.5	23.7	18.4	36.8	10.5			
The Second Dimension (Ease and Speed of Carrying Out Tax Operations)							3.5855	1.0769	Agree
Statement (09)	Frequency	4	4	5	17	8	3.55	1.245	Agree
	%	10.5	10.5	13.2	44.7	21.1			
Statement (10)	Frequency	1	10	7	15	5	3.34	1.097	Neutral
	%	2.6	26.3	18.4	39.5	13.2			
Statement (11)	Frequency	2	4	12	11	9	3.55	1.132	Agree
	%	5.3	10.5	31.6	28.9	23.7			
Statement (12)	Frequency	2	10	7	14	5	3.26	1.155	Neutral
	%	5.3	26.3	18.4	36.8	13.2			
The Third Dimension (Ease and Speed of Conducting Tax Operations)							3.4276	0.94959	Agree
The Second Axis (Effectiveness and Success of Digital Transformation)							3.5197	1.08816	Agree

Source: Prepared by the researchers based on SPSS V26 results.

The results of Axis Two, which concerns the effectiveness and success of digital transformation in the tax administration, reveal a dual picture that combines tangible achievements on the one hand and deep structural challenges on the other. While the overall indicators fall at the "Agree" level (Mean = 3.52), reflecting relative confidence in the effectiveness of digitization, the differences among the three dimensions raise several critical questions.

The first notable finding is the superiority of the first dimension related to improving service quality (3.96) compared with the other dimensions. Respondents considered that digital systems helped reduce human errors and enhance transparency, and even increase transparency. This optimism suggests that digitization succeeded in improving the administration's image and presenting it as more integrity-driven and effective. According to the center director, the information system facilitates employees' daily workflow and speeds up tax procedures, since the taxpayer can access their account and carry out all tax operations at any time and from any place, provided that internet service is available. Nevertheless, some services remain unavailable, such as issuing a tax extract, due to the administration's inability to record all previous debts.

In contrast, the results of the second dimension related to the ease and speed of completing operations (3.58) were less strong. Although digital systems contributed to accelerating certain procedures such as payment, collection, and filing returns, they did not achieve the same level of success in communication with taxpayers (3.13). This result is linked to the fourth statement, "Digital systems facilitate communication with taxpayers

regarding their tax dues through electronic channels,” which obtained a mean of 3.13. According to the center director, this is due to taxpayers’ limited awareness, as they do not use the digital system regularly. In addition, the system does not provide an automatic reminder service (either SMS or email) to notify taxpayers about their due dates.

As for the third dimension related to taxpayer satisfaction, it was the weakest (3.42), raising fundamental questions about the extent to which digitization achieves its ultimate goals. How can digital transformation be considered successful if the final beneficiary, namely the taxpayer, does not feel comfortable using the systems (3.34) and does not find in them a means that clearly helps them understand their tax obligations (3.26)?

The answer emerged from the center director, who explained that taxpayers’ limited use of the digital system is due to two reasons. The first is fear of providing banking data because they assume the tax administration will use it as a reference when determining the tax base. The second is lack of awareness of how to use the digital system. This was also voiced by taxpayers during awareness campaigns conducted by the administration for taxpayers and social partners (accountants, auditors, and expert accountants). As for understanding tax obligations, this is also related to taxpayers’ limited awareness of the true nature of the digital system, since they view it only as a system for filing and payment without engaging more deeply to understand their obligations. However, taxpayers who do use the digital system report full satisfaction based on the feedback they provided to the administration.

In conclusion, digital transformation in the tax administration is moving forward with clear steps toward enhancing efficiency and transparency, despite shortcomings in the human dimension and taxpayers’ understanding of their obligations. The success of digital transformation is not measured only by technical and procedural improvements, but also by the system’s ability to build a new relationship between the administration and the taxpayer, one based on trust, clarity, and ease of use. Without addressing this gap, digital transformation in the tax administration will remain an administrative achievement rather than a genuine reform of the relationship between the citizen and the state.

• Measuring the Readiness of the Tax Administration for Digital Transformation

To identify the level of readiness of the tax administration for digital transformation, a One-Sample t-test was conducted to compare the arithmetic mean of the sample’s responses with the reference value (3), which represents the neutral level on the five-point Likert scale. The following table presents the statistical results of the test.

Table N°10: One-Sample T-Test Results for Axis One

Axis	Mean	Calculated T	Tabulated T	Degrees of Freedom	Significance Level (Sig.)
Readiness of the Tax administration for Digital Transformation	3.0808	0.656	2.026	37	0.516

Source: Prepared by the researchers based on SPSS V26 results.

The one-sample t-test results show that the mean evaluation of readiness for digital transformation reached 3.08 with a standard deviation of 0.759, compared with the reference value 3, which represents the

neutral level on the Likert scale. The calculated T value was 0.656 with 37 degrees of freedom, which is lower than the tabulated T value 2.026 at the 0.05 significance level. The statistical significance value was Sig = 0.516, which is greater than 0.05, indicating that there are no statistically significant differences between the actual mean and the reference value.

Based on these results, the level of readiness of the tax administration for digital transformation can be interpreted as moderate, as the indicators did not show that the administration has exceeded this level toward higher levels of readiness. In other words, the tax administration shows certain indicators of digital preparedness, but it remains within the limits of moderate readiness, reflecting initial efforts in digital transformation that are still insufficient to achieve a qualitative leap.

Accordingly, it can be concluded that the tax administration needs further supportive measures for digital transformation, whether through developing technical infrastructure, intensifying training and qualification programs for human resources, or strengthening the legislative and regulatory framework, with the aim of raising readiness from the moderate level to an advanced level that ensures greater effectiveness of digital transformation programs.

3.2. Hypotheses Testing

After examining the level of readiness for digital transformation, the question arises regarding the impact of this readiness on the effectiveness of digital transformation within the institution. To verify this relationship, the main hypothesis stating that tax administration readiness affects the effectiveness of digital transformation, along with its sub-hypotheses, was tested using simple linear regression analysis.

3.2.1. Main Hypothesis

Effect of tax administration readiness on the effectiveness of digital transformation in the tax administration

H₀: There is no effect of tax administration readiness on the effectiveness of digital transformation in the tax administration.

H₁: Tax administration readiness affects the effectiveness of digital transformation in the tax administration.

Table N°11: Correlation and Determination Coefficients for the "Effectiveness and Success of Digital Transformation" Model

F value	Significance (Sig.)	Correlation coefficient (R)	Coefficient of determination (R ²)	Adjusted R ²	Standard error of the estimate
17.173	0.000	0.568	0.323	0.304	0.90771

Source: Prepared by the researchers based on SPSS V26 results.

Table N°12: Regression Coefficients for the Effect of Readiness on Digital Transformation Effectiveness

Variable	Unstandardized coefficient (B)	Standard error	Standardized coefficient (Beta)	Calculated t	Significance (Sig.)
Constant	1.01	0.623	—	1.62	0.114
Readiness	0.815	0.197	0.568	4.144	0.000

Source: Prepared by the researchers based on SPSS V26 results.

The correlation and determination results indicate a moderate positive correlation between tax administration readiness and the effectiveness of digital transformation, where $R = 0.568$. This indicates that 56.8% of the variation in the effectiveness and success of digital transformation can be explained by the readiness level, while the remaining variation is attributed to other factors not included in the model. The table also shows that the model as a whole is statistically significant according to the ANOVA test, with $F = 17.173$ and $\text{Sig} = 0.000 < 0.05$, indicating that the model is valid for predicting digital transformation effectiveness based on readiness.

The regression coefficients show that readiness has a positive and statistically significant effect on digital transformation effectiveness, with $B = 0.815$ and $\text{Beta} = 0.568$, and with $t = 4.144$ and $\text{Sig} = 0.000$, which confirms a statistically significant effect. This means that increasing readiness by one unit is expected to increase the effectiveness score by 0.815. The constant was not statistically significant, which theoretically represents the expected effectiveness value when readiness is absent.

Based on these results, H_0 is rejected and H_1 is accepted, indicating that tax administration readiness affects the effectiveness of digital transformation. The results also indicate that improving readiness is an important factor for enhancing digital transformation success, while part of the variation remains linked to additional factors that can be explored in future studies.

3.2.2.Sub-Hypotheses

- **Sub-hypothesis 1:** Effect of readiness on improving the quality of tax services

H_0 : Tax administration readiness does not affect improving the quality of tax services.

H_1 : Tax administration readiness affects improving the quality of tax services.

Table N°13: Correlation and Determination Coefficients for the “Improving the Quality of Tax Services” Model

F value	Significance (Sig.)	Correlation coefficient (R)	Coefficient of determination (R^2)	Adjusted R^2	Standard error of the estimate
1.018	0.32	0.166	0.027	0	1.10337

Source: Prepared by the researchers based on SPSS V26 results.

Table N°14: Regression Coefficients for the Effect of Readiness on Improving the Quality of Tax Services

Variable	Unstandardized coefficient (B)	Standard error	Standardized coefficient (Beta)	Calculated t	Significance (Sig.)
Constant	3.218	0.758	—	4.247	—
Readiness	0.241	0.239	0.166	1.009	0.32

Source: Prepared by the researchers based on SPSS V26 results.

The results indicate a weak positive correlation between readiness and improving service quality ($R = 0.166$). This means that only 16.6% of the variation in improving service quality can be explained by readiness, while the rest is due to other factors not included in the model. The model as a whole is not statistically significant ($\text{Sig} = 0.320 > 0.05$), meaning it does not sufficiently predict improving service quality based on readiness in this sample.

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The regression results also show that the effect of readiness on improving service quality is not statistically significant ($B = 0.241$, $Beta = 0.166$, $t = 1.009$, $Sig = 0.320$). Accordingly, H_0 is accepted and H_1 is rejected.

- **Sub-hypothesis 2: Effect of readiness on the ease and speed of carrying out tax procedures**

H_0 : Tax administration readiness does not affect the ease and speed of carrying out tax procedures.

H_1 : Tax administration readiness affects the ease and speed of carrying out tax procedures.

Table N°15: Correlation and Determination Coefficients for the "Ease and Speed of Carrying Out Tax Procedures" Model

F value	Significance (Sig.)	Correlation coefficient (R)	Coefficient of determination (R^2)	Adjusted R^2	Standard error of the estimate
6.568	0.015	0.393	0.154	0.131	1.00401

Source: Prepared by the researchers based on SPSS V26 results.

Table N°16: Regression Coefficients for the Effect of Readiness on the Ease and Speed of Carrying Out Tax Procedures

Variable	Unstandardized coefficient (B)	Standard error	Standardized coefficient (Beta)	Calculated t	Significance (Sig.)
Constant	1.869	0.689	—	2.71	—
Readiness	0.557	0.217	0.393	2.563	0.015

Source: Prepared by the researchers based on SPSS V26 results.

These results indicate a moderate positive correlation between readiness and the ease and speed of procedures ($R = 0.393$). The model is statistically significant ($F = 6.568$, $Sig = 0.015 < 0.05$). The regression coefficients show that readiness has a positive and statistically significant effect ($B = 0.557$, $Beta = 0.393$, $t = 2.563$, $Sig = 0.015$). Therefore, H_0 is rejected and H_1 is accepted.

- **Sub-hypothesis 3: Effect of readiness on taxpayer satisfaction level**

H_0 : Tax administration readiness does not affect the level of taxpayer satisfaction.

H_1 : Tax administration readiness affects the level of taxpayer satisfaction.

Table N°17: Correlation and Determination Coefficients for the "Taxpayer Satisfaction Level" Model

F value	Significance (Sig.)	Correlation coefficient (R)	Coefficient of determination (R^2)	Adjusted R^2	Standard error of the estimate
7.422	0.01	0.413	0.171	0.148	0.87656

Source: Prepared by the researchers based on SPSS V26 results.

Table N°18: Regression Coefficients for the Effect of Readiness on Taxpayer Satisfaction Level

Variable	Unstandardized coefficient (B)	Standard error	Standardized coefficient (Beta)	Calculated t	Significance (Sig.)
Constant	1.834	0.602	—	3.047	—
Readiness	0.517	0.19	0.413	2.724	0.01

Source: Prepared by the researchers based on SPSS V26 results.

The results of the correlation and determination coefficients table indicate the existence of a moderate positive correlation between the readiness of the tax administration and the level of taxpayer satisfaction, as the correlation coefficient reached ($R = 0.413$). This indicates that 41.3% of the variation in taxpayer satisfaction can be explained by the level of readiness of the tax administration, while the remaining percentage is attributed to other factors not included in the model. The table also shows that the model as a whole is statistically significant according to the ANOVA test, where the F value reached 7.422 at a significance level ($\text{Sig} = 0.010 < 0.05$), which indicates that the model is valid for predicting taxpayer satisfaction based on the level of administrative readiness.

As for the results of the regression coefficients table, they show that the readiness of the tax administration has a positive and statistically significant effect on the level of taxpayer satisfaction. The unstandardized regression coefficient reached ($B = 0.517$) and the standardized coefficient ($\text{Beta} = 0.413$), with a calculated t value ($t = 2.724$) and a significance level ($\text{Sig} = 0.010$), confirming the existence of a statistically significant effect. This means that an increase of one unit in the level of tax administration readiness is expected to lead to an increase of 0.517 in the taxpayer satisfaction score. The constant represents the expected value of the dependent variable in the absence of readiness.

Based on these results, the null hypothesis (H_0) is rejected and the alternative hypothesis (H_1) is accepted, indicating that improving the level of administrative readiness is an important factor in enhancing taxpayer satisfaction, while acknowledging that part of the variation may be due to other factors that can be explored in future studies.

Finally, the results of this study showed that the level of readiness of the tax administration in Algeria for digital transformation remains moderate, particularly in terms of digital infrastructure and continuous training of human resources. This is consistent with the findings of studies (Kheloufi et al., 2020; Merzouka and Dhib, 2025), which highlighted weak technical infrastructure and shortcomings in human competencies as major obstacles to digital transformation in Algeria. The results also align with the study (Qennas and Younes, 2021), which pointed to the limited skills of employees in dealing with digital systems. However, this study added a new dimension, namely that the prior practical experience of young employees contributed to mitigating the impact of limited training, an aspect that was not clearly addressed in previous literature.

Regarding the legislative framework, the results showed that current legislation is generally supportive of digital transformation, but it remains insufficient to keep pace with technological developments. This is consistent with the recommendations of Arab and international studies (Wali et al., 2024; Bassey et al., 2022), which emphasized the need to update legal frameworks in line with the requirements of the digital environment. Moreover, the findings concerning weak coordination among government agencies are consistent with what

was reported by (Naas and Majdoub, 2023) regarding the difficulty of adapting digital systems to local administrative realities.

4. Study Limitations

Despite the importance of the results reached by this study in diagnosing the level of readiness of the Algerian tax administration for digital transformation, several limitations should be acknowledged. First, the field study was restricted to the Local Tax Center of El Eulma, which may limit the generalizability of the findings to other tax administrations across Algeria, given the possibility of differences in infrastructure quality or human competencies among centers. In addition, the sample size was relatively limited (38 employees), which may not fully reflect all perspectives, particularly those of less represented occupational categories.

Moreover, the study relied mainly on the questionnaire and the interview as primary data collection tools, which may reflect the subjective tendencies of respondents. It should also be noted that the study was conducted within a specific time period, whereas digital transformation is a continuous and dynamic process that may evolve over time with changes in governmental policies and legislative frameworks. Finally, the study focused on three main dimensions: infrastructure, human resources, and the legislative framework, without exploring other dimensions that may constitute essential factors in determining the overall level of readiness for digital transformation.

V- Conclusion

This study sought to answer the main research question: To what extent is the Algerian tax administration ready for digital transformation? This was achieved through a field study conducted at the Tax Center of El Eulma. The study highlighted the different dimensions of this readiness, including digital infrastructure, human competencies, the legislative framework, and organizational capacity.

The results showed that the Algerian tax administration demonstrates partial readiness for digital transformation. However, several challenges continue to hinder the full and effective implementation of this transformation.

The findings also emphasized the need to improve digital infrastructure, including the modernization of equipment and digital networks. In addition, the study highlighted the necessity of intensifying training and qualification programs for employees, as the results revealed a lack of sufficient training to keep pace with digital developments. Regarding the legislative dimension, the study confirmed the need to review and update tax laws in order to align with the requirements of digital transformation, particularly in terms of personal data protection and the facilitation of electronic tax procedures.

Furthermore, the results indicated that the readiness of the tax administration affects the effectiveness of digital transformation. They also showed that improving the quality of tax services is not directly linked solely to

the level of administrative readiness. The findings confirmed that readiness constitutes an important factor in enhancing taxpayer satisfaction, provided that current challenges are addressed and overcome.

Unlike most previous studies, which focused on the impact of digitalization on improving tax collection or reducing tax evasion (Hajjar, 2024; Al-Mabrouk, 2024), this study concentrated on evaluating the internal readiness of the tax administration, namely infrastructure, human competencies, and the legislative framework. This represents a valuable contribution to the literature by filling a research gap related to diagnosing the preparedness of the Algerian tax administration to meet the requirements of digital transformation before assessing its final outcomes.

It should be noted that this study is limited in terms of its geographical scope, since it was confined to the Local Tax Center of El Eulma, as well as in terms of sample size and the adopted data collection tools. Moreover, it addressed specific dimensions (infrastructure, human resources, and legislative framework) without extending the analysis to other dimensions. Therefore, the results reflect a partial case that may vary depending on different contexts, institutional developments, and temporal changes.

In conclusion, digital transformation within the tax administration remains one of the fundamental factors for achieving tax equity and enhancing the efficiency of the Algerian tax system. It is essential that efforts be integrated between the government and citizens in order to maximize the benefits of these digital transformations.

1. Recommendations

- Strengthening digital infrastructure through increased investments aimed at modernizing information systems and improving network quality.
- Enhancing cybersecurity systems in order to protect tax data and ensure the safety of digital transactions.
- Developing continuous training and qualification programs to raise human resource competencies and enable them to keep pace with modern digital technologies.
- Reviewing and updating tax laws and legislation in line with the requirements of the digital environment and in support of innovation in tax services.
- Improving communication channels with taxpayers through awareness campaigns and interactive digital platforms that facilitate access to information and services.
- Expanding the use of electronic services in collection and payment processes, and fully simplifying tax procedures through digital means.
- Enhancing coordination among governmental administrations to ensure information integration and facilitate data exchange between different agencies.

- Encouraging future studies on the use of artificial intelligence and data analytics techniques within the tax system to support decision-making and improve performance.

2. Suggestions for Future Research

Future research may be directed toward expanding field studies to include multiple tax administrations nationwide, using larger employee samples to ensure representation of different categories. It is also recommended to diversify data collection tools by integrating observation and document analysis with questionnaires and interviews in order to increase accuracy.

Longitudinal studies would also be beneficial to monitor the evolution of tax administration readiness over time and to evaluate the impact of legislative and technological developments. In addition, the scope of analysis may be extended to include further dimensions such as financing, organizational culture, and resistance to change, as these are influential factors in the success of digital transformation.

Conducting comparisons with Arab and African experiences may also be useful in identifying successful practices that can be adopted locally. Through these orientations, future research will contribute to building a clearer and deeper understanding of the readiness of the tax administration for digital transformation, thereby enhancing the effectiveness of policies and procedures aimed at modernizing the Algerian tax system.

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