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Digitization of the Tax System and Its Role in Supporting the Tax Audit Strategy (Case Study: CDI in Djelfa 2017 – 2024)

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Abstract

The widespread dissemination of information and communication technology has led to the emergence of digitization, which has today become the language and tool of the era, and has been adopted by the tax administration in Algeria.

This research aims to highlight the reality of digitization in the Algerian tax administration and its role in embodying tax audit mechanisms, being both a preventive and punitive tool in combating tax evasion, whose intensity is increasing. We addressed the concept of digitization and its use in the Algerian tax system, as well as the concept of tax audit, choosing the Tax Center of Djelfa (CDI) as one of the active bodies in this field at the local level.

The study concluded that digitization of the tax system has an effect on tax audit, as this appears in the simplification and acceleration of processes through digital applications and systems adopted by tax institutions. The study also found that the Algerian tax system faces many challenges, stakes, and difficulties, the most prominent of which is tax evasion and its risks on the state's general budget revenues.

Keywords

Digitization, Algerian tax system, digitization of tax administration, tax audit, tax information system.
JEL Classification: H21, M42, P40

Axis One: Introduction

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In light of the rapid developments witnessed globally in the field of information and communication technology, what is called e-government emerged. Algeria, like other countries, found itself compelled to keep pace with these accelerating changes, adopting a comprehensive national strategy for digital transformation aiming to enhance transparency, efficiency, and achieve digital sovereignty by 2030. It is based on two main principles: developing the legal and legislative framework and strengthening digital security. Algeria accelerated the pace of digitization in 2023, highlighting important initiatives such as the digital investor platform, e-commerce platforms, and digitization of tax administration through websites in order to facilitate processes, expand the tax base, eliminate fraud and tax evasion, and thus maximize public revenues while focusing on normal taxation to increase its contribution to the state budget.

Among the most important tools adopted by the tax administration in combating tax evasion and fraud is tax audit with its various strategies and mechanisms.

Main Research Axes

- The conceptual framework of digitization and the tax system;
- The relationship between digitization of tax administration and tax audit;
- The strategy of tax audit for digitization of the tax system at the Tax Center (CDI) in Djelfa.

Research Problem

To what extent will the digitization of the tax system contribute to enhancing the performance of tax audit at the Djelfa Tax Center?

To answer and address this issue and to reach a clear understanding, the following sub-questions were raised:

- What is meant by digitization and what are its manifestations in the Algerian tax administration?
- Is there a relationship between digitization of tax administration and levels of tax audit?
- What is the impact of digitization on tax audit and what is its effectiveness at the local level (Djelfa Tax Center - CDI)?

Objectives of the Study

- To clarify the concepts of digitization and how it is used in the tax system;
- To focus on modern information systems applied within the framework of reforming the Algerian tax system;
- To highlight the implications of digitization of the tax system on tax audit at the local level.

section Two: The Conceptual Framework of Tax System Digitization

First: Definition of Digitization

The concepts related to the term digitization vary according to the context in which it is used. The term “Digitization” was traced through its review in the Oxford Online Dictionary, where it was found that the terms *Digitalize, Digitize, Digitise* are used as equivalents for the verb (to digitize), derived from the term “Digit.” It defined it as: the conversion of (sound or image) into a digital form that can be processed by a computer (Yass, 2013, pp. 15–16).

Second: Definition of the Tax System

The expression “system” in the field of taxation bears two meanings: a broad meaning and a narrow one.

- In its broad sense, it corresponds to the French expression *(institution)*, meaning the set of ideological, economic, and technical elements whose accumulation leads to a specific tax entity. This entity represents the façade of the system, which necessarily differs in its features in a capitalist society compared to a socialist one, and also differs in a developed economy compared to an underdeveloped one.
- In its narrow sense, it corresponds to the French term *(system)*, which means the set of legal and technical rules that enable tax deduction in its successive stages, from tax legislation to assessment and collection (Al-Batriq, 2003, p. 19).

Third: Models of Tax Administration Digitization

1- Definition of the Tax Information System "SAP"

It is a system composed of several integrated modules that, in most cases, meet the professional task requirements of the tax administration, with the identification and specification of the IT solution, and handling the IT developments related to the needs of the professional tasks of the General Directorate of Taxes. It has been programmed with its own IT devices (General Directorate of Taxes, 2025).

2- Expected Results from the Information System "SAP"

- Removal of the physical nature from all tax operations, starting from receiving the taxpayer, establishing the tax base, and collection, as well as managing the tax file.
- Access of all staff to the IT system through monitoring authorizations.
- Rapid exchange of information related to data between departments and other institutional services through the development of multiple interfaces.

3: The Tax Information System "Jibayatic"

3-a: Definition of the Tax Information System Jibayatic

“Jibayatic” is considered the new portal of the Algerian Tax Administration. It provides the service of remote tax declaration, giving taxpayers the opportunity to settle their tax liability online and begin an appropriate payment process via transfer through the mass payment banking system. The online declaration must be accompanied by the issuance of a transfer order linked as stipulated in this service (Gouadri, 2022, p. 242).

3-b: The Importance of the "Jibayatic" Software

The transition from a manual administration-based work model to a model based on analyzing, reviewing, and controlling information within the software environment will contribute significantly to modernizing the existing tax system, improving its performance, and providing more services to taxpayers. It also simplifies the tax system by relying on a simple and efficient system to finance public spending in a continuous and uninterrupted way through:

- Expanding the tax base,
- Reducing the tax burden,
- Facilitating tax revenue collection,
- Developing the tax verification process.

It is also considered a unique data model available to all structures, which will reduce manual intervention by staff and the repetition of work performed. It provides immediate access to information quickly and accurately, helping reduce operating costs in the medium and long term. Furthermore, it allows access to information and functions according to the hierarchical file, with unification of the central system that achieves a comprehensive vision of taxpayers (Qara, 2022, p. 388).

4: The Remote Electronic Declaration Portal "Mousahamatak"

4-a: Definition of the Remote Electronic Declaration Portal "Mousahamatak"

The new portal "Mousahamatak" represents a new experience in remote procedures. Its purpose is to facilitate administrative procedures and simplify the fulfillment of tax obligations by allowing taxpayers to declare and pay taxes online. This portal was introduced at the level of tax collection offices in the provincial directorates that do not have a tax center or local tax office. The General Directorate of Taxes opted for the gradual generalization of the "Mousahamatak" portal at the level of tax collection offices, where many services are provided (Barhal & Ben Belkacem, 2022).

4-b: The Advantages Provided by the Remote Declaration Portal "Mousahamatak"

In addition to the variety of tax declaration and payment methods, the portal provides several advantages to taxpayers, such as:

- Better control of operations,
- Data exchange with the tax administration, thanks to the precise monitoring of submitted declarations and completed payments,
- Ease of data entry, in accordance with up-to-date tax rules, helping to avoid calculation errors and typographical mistakes associated with paper procedures,
- Free of charge and easy access using automated systems (General Directorate of Taxes, 2024).

Section Three: The Relationship between Tax Administration Digitization and Tax Control

First: Evaluation of Tax Administration Digitization (Tax Investigations)

The evaluation of the digitization process of tax administration in tax control, particularly in the field of tax investigations, is addressed as follows:

Table No. 01

Development of the Results of Tax Investigation Forms during the period 2013–2020 (unit: million DZD)

Years	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Targeted investigation	-	-	-	-	1,189	1,434	1,201	1,954
Accounting investigation	73,670	14,037	20,533	74,595	41,503	34,153	31,359	36,255
Global tax situation investigation	985	1,307	1,358	1,288	5,896	1,633	99	4,507

Source: Prepared by the researcher based on data from the website of the General Directorate of Taxes.

Observations from the table:

- The value of fines and recorded rights reached its highest in 2016 with 74,595 million DZD, which reveals the state of tax fraud in Algeria.

- The period (2017–2020) witnessed a decline in the amounts of rights and fines recovered due to the introduction of a new type of investigation: the targeted investigation (Dabbabiya & Mahrez, 2022/2023, p. 32).
- The year 2020 recorded the highest value of rights and fines recovered through targeted investigation, which is characterized by being faster, narrower in scope, and less comprehensive than accounting investigation.
- The global tax situation investigation achieved medium revenues compared to accounting investigation, with the highest being in 2017 amounting to 5,896 million DZD (Dabbabiya & Mahrez, 2022/2023, p. 34).

Second: The Role of Digitization in Enhancing Tax Control

- Digitization facilitates the work assigned to the tax administration, as it provides many procedures for calculating taxable material, and reduces the probability of disputes and objections from taxpayers.
- Activating the system of electronic submission of tax declarations enhances trust between the two parties of the tax relationship, leading to taxpayers' compliance with tax payment deadlines.
- It makes it easier for taxpayers to deal with tax administrations, reducing the time required for tax settlement procedures, and simplifying processes (Msabah, 2021, p. 159).
- Accounting and the actual calculation of the real amount of declaration and identifying taxpayers contribute directly to eliminating various manipulations.

section Four: Evaluation of Digitization at the Tax Center "CDI" in Djelfa and Its Role in Improving Tax Administrative Performance

First: General Statistics on the Digitization of Tax Control

After the submission of tax declarations by the taxpayer, the officer at the center carries out tax control, which is an important stage to ensure the accuracy of these declarations according to a systematic and organized control process, by studying and analyzing the number and development of audited files and comparing the amounts recovered before and after the application of electronic tax procedures.

A – Statistics of Djelfa Tax Center (31–12–2023)

- Number of registered active taxpayers, distributed as follows:
  - 2,170 legal persons.
  - 3,854 natural persons (male).
  - 976 natural persons (female).
- Number of files opened for 2024: 681 files.

Table No. 02: Statistics of CDI Tax Center in Djelfa

150,000,000.00	**Objectives for 2023**
145,500,000.00	Collection for 2023
97 %	Rate

Source: Prepared by the researcher using information provided by the center.

B – Revenues of CDI Tax Center in Djelfa (2017–2024)

Table No. 03: Development of the number of files subject to tax control at the center and the amounts recovered as a result of applying control during the period (2017–2024)

Years	Total Files	CSP Control Program from Total Files	Settlement Amount (DZD)
2017	1,900	180	90,007,318
2018	1,800	270	91,931,286
2019	2,200	310	97,835,166
2020	2,500	410	59,690,714
2021	2,500	420	150,827,274
2022	3,300	330	181,390,627
2023	5,000	380	Under settlement
2024	7,000	550	Under settlement

Source: Prepared by the researcher using information provided by the center.

Analysis:
From the table above, we notice that during the period from 2017 to 2024, a significant number of taxpayers' files were processed as follows:

- In 2017, 180 files out of 1,900 files were subject to control, i.e., 34.2%, with a settlement amount of 90,007,318 DZD.
- We then note an increase in the amounts recovered in the following years, due to the start of implementing electronic tax governance in tax control and the use of modern mechanisms to detect tax fraud and evasion.
- The year 2020 represented an exception due to the COVID-19 pandemic, with 410 files out of 2,500 processed, amounting to 59,690,714 DZD.
- Training sessions in IT and control fields under the supervision of specialists in combating accounting and financial corruption contributed to programming a larger number of taxpayers into tax control.
- With the expansion of the new IT system, the number of those subject to control decreased due to the effectiveness of the "Jibayatic" system in ensuring taxpayers' compliance with accounting rules and financial laws, accompanied by an increase in the amounts recovered during 2021–2022–2023 (150,827,274 DZD and 181,390,627 DZD respectively).

Conclusion: The new electronic tax system has proven more effective, as it enabled the recovery of significant revenues with fewer files studied, in less time, and at lower cost compared to the years before its implementation, despite not yet being applied with all its intended features.

Second: The Impact of Tax Sector Digitization on Tax Control at CDI Djelfa

The tax center in Djelfa represents a qualitative leap in tax transactions and is a gain for the province. From the field study at the Djelfa Tax Center, it is clear that digitization is applied at the center through an internal network available among all departments. The service for taxpayers begins at the reception office and ends there, as it is the cornerstone of the Tax Center.

The internal network allows all employees of the center, from the head of the center to the heads of departments, to monitor the process, which helps save time, reduce paperwork, and ease the burden on taxpayers in obtaining their documents. Digitization facilitated coordination between different departments, ensuring faster handling and responses to taxpayers.

Interviews with department heads confirmed that digitization provided the center with IT devices and internal communication, reducing the use of paper and saving time. Through the reception and information office, data is transmitted to all departments to perform their assigned tasks, reducing the need to move between offices. Digitization also enabled generating tables, statistics, and reports via computers and software, reducing manual errors.

Thus, digitization increased employees' administrative creativity, distinction, and service quality. It also contributed to the rapid processing of taxpayers' requests, whether remote or on-site. Employees rely on the tax identification number to avoid errors from name similarities; once the number is entered, all taxpayer information appears. However, despite the efforts, the Djelfa Tax Center still lacks qualified and trained personnel. Although well-equipped with offices and IT devices, work is still concentrated among a limited number of skilled staff, from the head of the center to the department heads and their assistants. The current number of employees is 80, given the available resources.

Section Five: Conclusion

First: General Findings of the Study

- Digitization is a comprehensive national strategy for digital transformation by 2030, playing a major role in improving e-government services.
- The digitization of the tax administration plays a key role in broadening the tax base, combating tax evasion, and improving efficiency through digitized declarations.
- Tax control in Algeria secures important tax revenues for the state treasury through recovered rights.
- Tax control protects tax revenues from loss through its oversight functions.

Second: Recommendations and Suggestions of the Study

- Generalize digitization across all financial sectors (taxes, customs, state property, insurance funds, and the justice sector) to enhance tax control performance, simplify tax collection, and resolve disputes more easily, quickly, and cheaply.
- Ensure proper training for employees to adapt to digital transformation.
- Establish a central system for electronic information exchange between tax centers and directorates.
- Strengthen legal safeguards to prevent breaches of tax administration data and establish systems against all forms of cybercrime.

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