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Measuring the Impact of Creating New Tax Structures on the Tax Collection Efficiency in Tax Administrations in Eastern Algeria: A field study

قياس أثر استحداث هياكل ضريبية جديدة على كفاءة التحصيل الجبائي للإدارات الضريبية بالشرق الجزائري ـ دراسة ميدانية

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Abstract:

This study aimed to assess the impact of introducing new tax structures on the tax collection efficiency in tax administrations across Eastern Algeria. To achieve this objective, the descriptive-analytical approach was adopted, utilizing a questionnaire as the primary data collection tool. The questionnaire was distributed to a sample of 248 tax officers, with a response rate of 97.25%. The findings indicate the presence of statistically significant indicators supporting the establishment of new tax structures in the region. Furthermore, the results reveal a statistically significant positive relationship between the introduction of new tax structures and tax collection efficiency in Eastern Algerian provinces. Additionally, the study confirms a statistically significant positive effect of these new tax structures on overall tax revenue collection in the region. Based on these findings, it is recommended that tax authorities enhance structural reforms, provide continuous training for tax officers, integrate advanced digital technologies into tax administration, and periodically assess policy effectiveness to optimize tax collection. Strengthening compliance measures is also essential to ensure sustainable revenue growth and minimize tax evasion risks.

Keywords: New tax structures; Tax collection Efficiency; Eastern Algeria.

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ملخص:

هدفت هذه الدراسة إلى قياس أثر استحداث هياكل ضريبية جديدة على كفاءة التحصيل الجبائي في الإدارات الضريبية بالشرق الجزائري، وذلك من خلال اعتماد المنهج الوصفي التحليلي. ولتحقيق أهداف الدراسة، تم استخدام الاستبيان كأداة رئيسية لجمع البيانات، حيث وزع على عينة مكونة من 248 عونا جبائيا، وبلغت نسبة الاستجابة 97.25٪. أظهرت نتائج الدراسة وجود مؤشرات ذات دلالة إحصائية تدعم استحداث هياكل ضريبية جديدة بالشرق الجزائري. كما كشفت النتائج عن وجود علاقة إيجابية ذات دلالة إحصائية بين استحداث هذه الهياكل وكفاءة التحصيل الجبائي في ولايات الشرق الجزائري. علاوة على ذلك، أكدت الدراسة وجود أثر إيجابي ذي دلالة إحصائية لاستحداث الهياكل الضريبية الجديدة على إجمالي الإيرادات الجبائية المحصلة بالشرق الجزائري. وبناء على هذه النتائج، توصي الدراسة بضرورة تعزيز الإصلاحات الهيكلية في الإدارة الجبائية، وتكثيف برامج التدريب المستمر لأعوان الإدارة الضريبية، وتعزيز استخدام تكنولوجيا المعلومات والاتصال في الأنظمة الضريبية، بالإضافة إلى التقييم الدوري لفعالية السياسات الضريبية من أجل تحسين التحصيل الجبائي. كما توصي بضرورة تعزيز آليات الامتثال الجبائي لضمان استدامة الإيرادات وتقليل مخاطر التهرب الضريبي.

الكلمات المفتاحية : الهياكل الضريبية المستحدثة؛ كفاءة التحصيل الجبائي؛ الشرق الجزائري.

Introduction

Effective tax collection is one of the fundamental pillars for ensuring the sustainability of public finances and enhancing the state's ability to finance its development programs. With the increasing complexity of economic transactions and the expansion of informal activities, tax administrations face significant challenges in collecting tax revenues efficiently and effectively. In response to these challenges, many countries have introduced new tax structures aimed at improving the performance of tax administrations, enhancing voluntary compliance, and reducing tax evasion rates.

In Algeria, tax administrations have undergone organizational reforms aimed at modernizing collection mechanisms and improving efficiency through the adoption of new tax structures. However, the effectiveness of these reforms and their impact on tax collection efficiency remain insufficiently studied, necessitating an

in-depth analysis to assess their real impact on the performance of tax administrations.

Research Problem

Based on the above, this study seeks to address the following main question: **To what extent does the introduction of new tax structures improve the efficiency of tax collection in the tax administrations of Eastern Algeria?**

Research Objectives

This study aims to achieve the following objectives:

- Identify the newly introduced tax structures implemented to reform Algerian tax administrations;
- Determine the relationship between the introduction of new tax structures and the tax collection performance of tax administrations in Eastern Algeria;
- Analyze the impact of new tax structures on the efficiency of tax collection in the tax administrations of Eastern Algeria;

Significance of the Study

The significance of this study lies in its precise analysis of the impact of new tax structures on the efficiency of tax collection, providing valuable insights for policymakers to refine tax policies and enhance financial reforms. Additionally, it contributes to enriching the scientific literature on tax administration in developing economies, particularly in the Algerian context, where empirical studies on this subject remain limited.

Research Methodology

This study adopts a descriptive-analytical approach:

- The descriptive aspect involves examining and analyzing both the introduction of new tax structures and tax collection performance through a theoretical framework;
- The analytical aspect focuses on analyzing data collected from tax administrations in Eastern Algeria to assess the impact of these reforms.

Research Hypotheses

Based on the theoretical framework and existing literature, the study posits the following hypotheses:

H1: There are statistically significant indicators of the introduction of new tax structures in Eastern Algeria.

H2: There is a statistically significant positive relationship between the introduction of new tax structures and tax collection performance in the tax administrations of Eastern Algeria.

H3: The introduction of new tax structures has a statistically significant positive impact on tax collection efficiency in the tax administrations of Eastern Algeria.

First: Theoretical framework of the study

The study requires a multidimensional theoretical framework that reflects the interaction between the introduction of new tax structures and tax collection efficiency in tax administrations. This framework will address two key dimensions as follows:

1. Introduction of new tax structures

1.1. The Large Enterprises Directorate

1.1.1. Definition of the Large Enterprises Directorate :

The large enterprises directorate represents one of the key tax structures introduced within the Algerian tax system, in accordance with Article 32 of the finance law of 2002, as part of ongoing efforts to modernize and streamline tax administration. This directorate officially commenced its operations in January 2006, assuming responsibility for managing the tax files of major enterprises with an annual turnover exceeding 100 million Algerian dinars. This includes oil companies and non-resident foreign firms operating in Algeria, in compliance with national tax legislation (El-Hadi Dhaifallah, 2018, p. 88).

The directorate oversees the tax status of large enterprises, managing registration, tax declarations, and revenue collection. Its specialized role enhances tax system efficiency by ensuring dedicated oversight for high-tax-paying entities, improving compliance and strengthening tax administration.

1.1.2. Motivations for establishment the large enterprises directorate

Despite their relatively small number, large enterprises in Algeria serve as the primary driver of public treasury funding, as taxes imposed on their economic activities account for nearly 70% of total tax revenues. Given the significance of these revenues, ensuring precise oversight of these companies' tax status necessitates the

adoption of strict monitoring mechanisms to enhance tax compliance. Furthermore, improving the efficiency of tax file management within the large enterprises directorate plays a pivotal role in increasing tax collection rates, as effective administration of these files facilitates the collection of a larger share of tax revenues while enabling the General Directorate of Taxes to exercise more effective control over these enterprises;

The establishment of the large enterprise's directorate was driven by several key considerations, including: (El-Hadi Dhaifallah, 2018, p. 89)

- Providing specialized tax services tailored to the needs of large enterprises;
- Modernizing the tax system through the enhancement of administrative and regulatory procedures;
- Strengthening revenue management, particularly for oil companies, to ensure effective oversight and optimal collection.

Tax revenues from this category of enterprises constitute a vital source of public treasury funding, requiring specialized structures to enhance tax service quality, modernize procedures, and implement effective monitoring mechanisms for efficient revenue management, particularly in the hydrocarbons sector.

1.1.3. Mandated functions of the large enterprise's directorate

The large enterprises directorate was established as part of broader efforts to modernize tax administration, with the primary objective of effectively supervising the tax files of large corporations. This responsibility entails the execution of several key tasks, including: (Saidi & Belbaghra, 2019, p. 61)

- Managing tax files of taxpayers based on their jurisdiction, including registration and administration;
- Issuing tax-related documents associated with taxpayer activities, such as collection statements, tax schedules, certificates of reduction or exemption, as well as registration and stamp duty procedures, while ensuring their validation;
- Monitoring taxpayers' tax status based on submitted documentation;

- Collecting taxes, fees, and royalties, preparing tax schedules, and issuing tax bonds;
- Conducting preliminary audits of tax files and processing them accordingly;
- Maintaining tax accounting records and ensuring the availability of necessary fiscal stamps;
- Planning tax audits for companies suspected of reporting irregularities and following up on audit outcomes;
- Supervising disputed tax files at both administrative and judicial levels;
- Tracking files benefiting from administrative tax reductions;
- Implementing financial clearance and accreditation mechanisms, while managing and updating operational and investment expenditures in line with requirements;
- Assessing financial, human, and technical resource needs, while ensuring the efficient management of available resources;
- Recruiting and appointing personnel not assigned through other means;
- Providing taxpayer assistance services, informing them of their tax rights and obligations;
- Enhancing communication between the directorate and taxpayers through the dissemination of relevant information and guidance;
- Coordinating with central tax information bodies and executing tax reception and communication strategies.

The large enterprises directorate plays a key role in serving taxpayers and supporting tax administration objectives. Its functions include managing tax files, issuing necessary documents, overseeing revenue collection, and auditing entities with potential irregularities to ensure compliance.

1.2. Tax Center (CDI): Definition and functions

The tax Center (CDI) is a specialized tax structure established as part of the tax reform program aimed at modernizing tax administration. It is responsible for managing the tax files of taxpayers subject to the real tax system and was introduced under Articles 31 and 32 of the 2003 Finance Law. This Center classifies taxpayers based on the nature of their activities and performs several

key functions, including determining the tax base, overseeing tax collection, resolving tax disputes, and providing taxpayer assistance and information services (Bouziane & Mouhyeddine, 2021, p. 155).

The Tax Center was established to separately the management of taxpayers under the real tax system from those under the flat-rate system. It oversees tax revenue collection for taxpayers with an annual turnover exceeding 8,000,000 DZD, enhancing administrative efficiency and strengthening public treasury revenues.

1.3. The Local Tax Center: Definition and functions

The local tax Center is a newly established fiscal structure introduced as part of ongoing efforts to modernize tax administration. It was created to manage the tax files of taxpayers subject to the single flat-rate tax (IFU) and commenced operations in 2006, coinciding with the launch of the large taxpayer directorates.

This Center is responsible for determining taxable material, overseeing tax collection processes, and resolving disputes involving taxpayers under the flat-rate regime. It replaced tax inspection offices and tax collection agencies, with a primary focus on enhancing the quality of tax services through: (Rekki & Amari, p. 27)

- Simplifying tax procedures;
- Strengthening coordination across different departments;
- Reducing the number of administrative structures, thereby enabling tax administration officers to carry out their duties more efficiently and effectively.

2. Theoretical Foundations of Tax Collection

The theoretical foundations of tax collection comprise a comprehensive framework that combines economic theories, administrative approaches, and Behavioral dynamics.

2.1. Definition of Tax Collection

Tax collection refers to a set of administrative and technical procedures aimed at transferring tax liabilities from taxpayers to the state treasury (Selini & Talbi, 2021, p. 395). It is also defined as the sum of operations designed to channel tax revenues from taxpayers into treasury accounts. As the final stage in the taxation cycle, tax collection represents the ultimate objective of the preceding phases,

including tax imposition, assessment, and determination (Bouzeida, 2007, p. 35).

Accordingly, tax collection is the most critical phase in the taxation process, as it plays a pivotal role in financing the state treasury through the revenues collected from taxpayers.

2.2. Legal Safeguards for Tax Collection

Tax collection is ensured through several legal guarantees enshrined in tax law, ensuring the state's ability to recover its fiscal rights. These guarantees include the following (Ben Azoug & Mesqam, 2020, pp. 520, 521):

- If a taxpayer disputes the validity or amount of a tax, they are still required to pay it first, with the right to a subsequent refund if their claim is upheld;
- Late tax payments trigger coercive measures by the tax authorities, such as administrative seizure of bank accounts, movable assets, and real estate. If the taxpayer fails to meet their tax obligations, the seized assets may be auctioned to recover the state's dues;
- Tax debts hold a privileged status, granting them priority over other debts in repayment, as stipulated in Article 991 of the Civil Code.
- These legal safeguards ensure that tax debts are effectively recovered while reinforcing taxpayers' obligations to the state and affirming the precedence of tax liabilities over other financial obligations.

2.3. Methods of Tax Collection

Tax collection is carried out through various methods designed to efficiently transfer tax liabilities from taxpayers to the state treasury. These methods can be categorized as follows:

2.3.1. Direct Payment

Under this method, the taxpayer voluntarily pays their tax obligations without any intervention or enforcement from tax authorities. This approach is based on the principle of voluntary compliance and can be implemented through two main mechanisms: (Boujriou & Hraq, 2022, p. 75)

- **Full Direct Payment:** The taxpayer settles the entire tax amount in a single payment;

- **Advance Installments:** This approach ensures steady financing for the state treasury while alleviating the tax burden on taxpayers by allowing them to pay taxes in periodic installments. These payments are based on the tax due from the previous fiscal year, with final settlement required before 1st May or after determining the taxable profit for the current fiscal year;

The choice between these methods depends on the type of tax. For example, certain taxes, such as the Single Flat Tax, may be collected using either method, whereas other taxes, such as the Corporate Profits Tax, are legally required to be paid through installment payments (Feroum, 2021, pp. 48, 49).

2.3.2. Withholding at Source

In this method, the responsibility for tax payment is transferred to a third party associated with the actual taxpayer. This party deducts the applicable tax amount and directly remits it to the state treasury. Withholding tax applies in several cases, including:

Taxes levied on income from securities, which are collected through financial instruments.

Payroll and wage taxes, where employers are obligated to deduct and transfer the due tax on behalf of their employees (Mehrazzi, 2008, p. 159).

Under this mechanism, tax authorities distinguish between two categories of taxpayers:

- **The actual taxpayer** – the individual or entity that bears the tax burden;
- **The tax remitter** – the entity responsible for deducting and depositing the tax amount into the state treasury.

2.4. Fines and Penalties Associated with Enhancing Tax Collection

Tax authorities impose various financial penalties to ensure taxpayer compliance with fiscal laws and regulations. These fines vary depending on the nature of the violation, as outlined below:

2.4.1. Fine for Failure to Declare Existence

According to Article 194 of the Direct Taxation and Similar Duties Act, a taxpayer who fails to submit the declaration of

existence, as required by Article 183, is subject to a tax fine of 30,000 DZD (Article 194 Bis 1, 2022, p. 46).

2.4.2. Tax Fraud Fine

Article 194 bis 1 stipulates that in cases of flagrant tax fraud, verified through the procedures outlined in Article 20 bis 3 of the Tax Procedures Code, a fine of 600,000 DZD is imposed, regardless of the tax regime applied. If the taxpayer's turnover exceeds 15,000,000 DZD at the time of reporting the infraction, the fine increases to 1,200,000 DZD, as per Article 282 bis 4 of the Direct Taxation and Similar Duties Act. Additionally, if the taxpayer incurs other penalties within the same period, they will apply only to violations distinct from the tax fraud offense (Article 194 Bis 1, 2022, p. 46).

2.4.3. Late Filing Penalty for the G50 Declaration

Under Article 115, a late submission of the turnover declaration (G50), required by Article 76, results in an additional tax of 10%. If the tax administration issues a formal notice, requiring the taxpayer to regularize their situation within one month, the penalty increases to 25% (Article 116, 2022, p. 32).

2.4.4. Penalties for Tax Evasion

Article 116 imposes additional financial penalties in cases of tax fraud detected during a tax audit. The fines are structured as follows: (Article 116, 2022, p. 32)

10% if the evaded tax amount for the fiscal year is ≤ 50,000 DZD;

15% if the evaded tax amount is between 50,000 DZD and 200,000 DZD;

25% if the evaded tax amount exceeds 200,000 DZD.

In cases where fraudulent methods are employed, a 100% penalty is applied to the total tax due (Article 116, 2022, p. 32). Additionally, tax authorities may request criminal sanctions, as stipulated in Article 117, if the fraudulent amount exceeds 10% of the total tax due (Article 116, 2022, p. 33).

Taxpayers are required to strictly adhere to tax regulations, as any violations or misrepresentations in tax declarations may result in substantial financial penalties and progressive enforcement measures, depending on the severity of the offense. These mechanisms are designed to strengthen tax compliance and ensure the regular financing of the state treasury.

Second: The field dimension of measuring the impact of introducing new tax structures on the tax collection efficiency in eastern Algeria

To achieve the study objectives and testing the extent of the impact of creating new tax structures on the tax collection efficiency, we will conduct a standard study by analyzing the answers of questionnaires distributed across a number of tax administrations in eastern Algeria.

1. Methodological procedures of the study

This phase serves as a fundamental preparatory step in conducting the field study. It involves precisely defining the study population and sample, followed by verifying the validity of the data collection instrument (the questionnaire). Additionally, this phase includes conducting descriptive analyses of the sample's characteristics, with the results presented in accordance with the adopted methodology, as outlined below:

1.1.Preliminary Procedures

We will discuss below the definition of the study community, the sample, and the data collection tools.

1.1.1. Study Population and Sample

The study population comprises tax officers working within the tax administrations of Eastern Algerian provinces. For the purposes of the field study, a purposive sample of 255 tax officers was selected. Questionnaires were distributed among them, and 248 valid responses were retrieved for analysis, yielding a response rate of 97.25% of the total distributed questionnaires.

1.1.2. Data Collection Instruments

This study employed a questionnaire as the primary tool for measuring variables, addressing the research problem, and testing hypotheses. It consisted of two sections: one for demographic data and another for assessing respondents' perspectives on the study variables. The questionnaire was developed based on prior research and the theoretical framework, then reviewed by experts for accuracy. Data analysis was conducted using SPSS and AMOS to ensure reliability and objectivity.

1.2. Validity and Reliability of the Measurement Instrument

To ensure the validity and reliability of the measurement instrument, Cronbach's Alpha coefficient was used to assess the questionnaire's reliability. The results are summarized as follows:

Table N° 1: Cronbach's Alpha Coefficient

Dimension	Number of Items	Cronbach's Alpha	Reliability
Dimension 1	15	0.802	0.896
Dimension 2	10	0.766	0.875
Total	25	0.784	0.885

Source: Compiled by the researchers based on SPSS 26 output.

Table 1 demonstrates that the measurement instrument exhibits a high level of reliability. The first dimension achieved a Cronbach's Alpha coefficient of 0.802, reflecting a strong level of validity, with a reliability coefficient of 0.896, indicating robust consistency. The second dimension recorded a Cronbach's Alpha value of 0.766, signifying good validity, with a reliability coefficient of 0.875, further reinforcing its dependability.

At the overall instrument level, Cronbach's Alpha was recorded at 0.784, while the reliability coefficient reached 0.885. These results confirm the accuracy and reliability of the questionnaire in effectively measuring the study variables.

1.2.Descriptive Profile of the Study Respondents

The descriptive characteristics of the study sample are summarized in the following table

Table N° 2: Descriptive Characteristics of the Study Sample

Characteristic	Categories	Frequency	Percentage (%)
Job	Technical Staff	105	42.34
	Administrative Staff	143	57.66
Age	21–30 Years	59	23.79
	31–40 Years	135	54.44
	Above 40 Years	54	21.77

Educational	Professional Certificate	15	6.05
	Bachelor's Degree	68	27.42
	Master's Degree	148	59.68
	Doctorate	17	6.85

Source: Compiled by the researchers based on SPSS 26 output.

The descriptive characteristics of the study sample, as shown in Table 2, highlight its relevance in evaluating the relationship between new tax structures and collection efficiency. Administrative staff constitute 57.66% of the sample, emphasizing their role in overseeing tax operations, while technical staff account for 42.34%, reflecting their involvement in implementing new mechanisms.

The majority of respondents fall within the 31–40 age group (54.44%), indicating substantial professional experience in assessing structural changes, followed by the 21–30 age group (23.79%), representing a younger, adaptable workforce.

Regarding education, 59.68% hold a Master's degree, demonstrating strong analytical skills for evaluating tax reforms, while 27.42% possess a Bachelor's degree, contributing to a broader perspective on integrating these reforms into tax administration.

2. Descriptive Measures of Study Axes and Hypothesis Testing

2.1. Descriptive measures of study axes

The descriptive analysis aims to assess respondents' level of agreement with each statement within the predefined study axes. Since the questionnaire is based on a **five-point Likert scale**, the arithmetic mean is categorized into five distinct levels, allowing for precise and clear interpretation of responses, as follows:

- **[1–1.80]**: Strongly Disagree
- **[1.80–2.60]**: Disagree
- **[2.60–3.40]**: Somewhat Agree
- **[3.40–4.20]**: Agree
- **[4.20–5]**: Strongly Agree

2.1.1. Descriptive Measures of the Axis: Creating New Tax Structures

Table N° 3: Descriptive Statistics for Creating New Tax Structures

Statement	Mean	Standard Deviation	Comment
Creating new tax structures enhances tax administration efficiency by improving task and responsibility distribution.	4.18	0.67	Strongly Agree
Creating specialized structures within the tax administration strengthens tax oversight and reduces tax evasion.	4.41	0.59	Strongly Agree
Developing tax structures improves coordination between departments, enhancing tax compliance.	4.02	0.71	Strongly Agree
Creating new tax structures enhances the work environment and improves tax officers' performance.	4.36	0.62	Strongly Agree
Setting up regional tax collection centers reduces delays and improves revenue flow.	4.26	0.75	Strongly Agree
Creating specialized departments for large corporations ensures more accurate tax assessments.	4.21	0.69	Strongly Agree
Enhancing tax structures promotes transparency in tax transactions between the administration and taxpayers.	3.79	0.68	Agree
Developing new tax structures improves the use of modern technological tools.	4.05	0.81	Agree
Creating new tax structures reduces tax burdens and enhances the quality of taxpayer services.	3.88	0.87	Agree
Expanding the creation of new tax structures brings tax services closer to taxpayers and encourages voluntary compliance.	4.12	0.79	Agree
Strengthening the tax administration's organizational structure improves decision-making efficiency and responsiveness to tax system changes.	3.97	0.85	Agree
Creating new tax structures expedites tax dispute resolution more fairly and efficiently.	3.90	0.92	Agree
Developing tax structures enhances data integration and improves tax estimates, reducing administrative errors.	3.95	0.84	Agree
Creating new tax structures improves planning and strategic decision-making in tax administration.	3.92	0.81	Agree
Updating tax structures supports modern tax policy implementation and strengthens tax reforms.	4.10	0.78	Agree
Creating New Tax Structures	4.07	0.72	Agree

Source: Compiled by the researchers based on SPSS 26 output.

The results in Table 3 indicate strong agreement among respondents on the impact of new tax structures on administrative efficiency, with an overall mean of 4.07 and a standard deviation of 0.72. The highest-rated factor is the creation of specialized structures (mean = 4.41), emphasizing their role in strengthening tax oversight and reducing evasion.

Additionally, respondents agreed that establishing tax collection offices (4.26) and service centers (4.21) enhances service quality and minimizes delays in tax declarations. Developing tax structures also improves transparency and clarity in transactions (3.79), fostering trust between tax authorities and taxpayers.

Furthermore, specialized risk management and dispute resolution units reinforce tax fairness and expedite settlements, with means of 3.90 and 3.88, respectively. Overall, these findings highlight that restructuring tax administration is essential for enhancing efficiency, promoting voluntary compliance, and optimizing tax collection.

2.1.2. Descriptive Metrics for the Tax Collection Dimension

Table N° 4: Descriptive Metrics for the Tax Collection Dimension

Statement	Mean	Standard Deviation	Result
The establishment of new tax structures contributes to improving tax collection efficiency and reducing tax gaps.	4.35	0.67	Strongly Agree
The creation of regional tax collection centers accelerates collection processes and reduces payment delays.	4.12	0.73	Agree
Creating new tax structures enhances taxpayer oversight and improves voluntary compliance.	3.98	0.79	Agree
Integrating digital technologies into new tax structures facilitates collection processes and minimizes administrative errors.	4.44	0.65	Strongly Agree
The creation of specialized departments for indirect taxes improves their monitoring and collection efficiency.	3.88	0.81	Agree
Coordination among various newly established tax structures enhances collection efficiency and reduces tax evasion.	4.28	0.71	Strongly Agree

Creating a directorate dedicated to major taxpayers enhances tax revenue collection.	4.31	0.69	Strongly Agree
Simplifying electronic payment procedures within new tax structures reduces delays in tax payments.	4.15	0.76	Agree
Updating tax legislation alongside the establishment of new structures strengthens tax collection and promotes tax justice.	3.92	0.83	Agree
The introduction of regional tax appeal offices expedites dispute resolution and enhances taxpayer confidence.	85	0.88	Agree
Strengthening the organizational structure of tax administration increases the accuracy of tax calculations and reduces accounting errors.	4.08	0.79	Agree
Creating specialized tax structures for monitoring all taxpayer categories reduces manipulation and ensures fairness in tax imposition.	4.18	0.74	Agree
Tax Collection	412	0.86	Agree

Source: Compiled by researchers based on SPSS 26 results.

Table 4 shows that the tax collection dimension achieved a mean score of 4.12, reflecting strong awareness of the role of new tax structures in enhancing collection efficiency and fostering compliance. Digital integration emerged as the most influential factor (mean = 4.44), emphasizing its role in streamlining tax collection and minimizing administrative errors. The establishment of new tax structures also contributed to narrowing tax gaps (mean = 4.35), reinforcing the need for restructuring tax administration to ensure fairer tax distribution.

Coordination among tax structures proved crucial in reducing tax evasion and improving collection efficiency (mean = 4.28), highlighting the importance of integration in monitoring undeclared activities. Additionally, the creation of a directorate for major taxpayers significantly enhanced revenue collection (mean = 4.31), demonstrating the effectiveness of specialized structures in ensuring fairness and efficiency.

However, some aspects showed relatively lower means. The establishment of regional tax appeal offices (mean = 3.85) suggests a need to strengthen taxpayer trust through better dispute resolution mechanisms. Similarly, specialized units for indirect tax collection

(mean = 3.88) indicate challenges in monitoring, particularly for VAT.

Based on these findings, accelerating digital transformation, enhancing coordination among tax administrations, and refining the organizational framework with specialized directorates are recommended. Continuous legislative reforms remain essential to ensure a fair and transparent tax system.

2.2. Hypothesis Testing

2.2.1. First Hypothesis

There are statistically significant indicators supporting the establishment of new tax structures in Eastern Algeria. To test this hypothesis, the null and alternative hypotheses are formulated as follows:

H_0: There are no statistically significant indicators of the establishment of new tax structures in Eastern Algeria.

H_1: There are statistically significant indicators of the establishment of new tax structures in Eastern Algeria.

Table N° 5: T-Test Results for the Establishment of New Tax Structures in Eastern Algeria

Variable	T-Value	Significance Level	Evaluation
Establishment of new tax structures in Eastern Algeria	56.48	0.000	Statistically Significant

Source: Compiled by researchers based on SPSS 26 results.

Table 5 indicates that the T-value for the establishment of new tax structures in Eastern Algeria is 56.48, with a significance level of 0.000, which is lower than the conventional threshold of 0.05. Consequently, the null hypothesis (H_0) is rejected, and the alternative hypothesis (H_1) is accepted. This confirms the presence of statistically significant indicators supporting the establishment of new tax structures in Eastern Algeria.

2.2.2. Second Hypothesis: Relationship Between the Establishment of New Tax Structures and Tax Collection in Eastern Algeria

This hypothesis examines whether there is a statistically significant positive relationship between the establishment of new tax structures and tax collection in Eastern Algeria. To test this hypothesis, the null and alternative hypotheses are formulated as follows:

H_0: There is no statistically significant positive relationship between the establishment of new tax structures and tax collection in Eastern Algeria.

H_1: There is a statistically significant positive relationship between the establishment of new tax structures and tax collection in Eastern Algeria.

Table N° 6: Regression Analysis, Correlation, and Determination Coefficients for the Relationship Between the Establishment of New Tax Structures and Tax Collection in Eastern Algeria

Variable	Regression	Residual	Total
Sum of Squares	32.415	17.642	50.057
Degrees of Freedom	1	247	248
Mean Square	32.415	0.071	—
F-Value	289.672	—	—
Significance Level	0.000	—	—
Correlation Coefficient (R)	0.712	—	—
Coefficient of Determination (R^2)	0.607	—	—

Source: Compiled by the researcher based on SPSS V.26 results.

The results in Table 6 reveal that the computed F-value is 289.672, which is greater than the critical table value of 3.84, indicating that the model is statistically significant at the 0.05 level. Moreover, the associated significance level (0.000) is lower than 0.05, confirming the validity of the model for testing the proposed hypothesis.

Additionally, the correlation coefficient (R) of 0.712 suggests a strong positive correlation between the establishment of new tax

structures and tax collection in tax administrations across Eastern Algeria. Since this value is positive and falls within the range [0.50 - 1], it reinforces the hypothesis that a significant relationship exists between the two variables.

Furthermore, the coefficient of determination (R^2) is 0.607, indicating that 60.7% of the variation in tax collection can be attributed to the establishment of new tax structures, while the remaining 39.3% is influenced by other factors not included in the model.

Based on these findings, we reject the null hypothesis, which posits no statistically significant relationship between the variables, and accept the alternative hypothesis, which states:

"There is a statistically significant positive relationship between the establishment of new tax structures and tax revenue collection in the eastern provinces of Algeria."

2.2.3. Third Hypothesis: There is a statistically significant positive effect of Creating new tax structures on tax revenue collection in the eastern provinces of Algeria.

To test this hypothesis, the null and alternative hypotheses are formulated as follows:

H_0: There is no statistically significant positive effect of Creating new tax structures on tax revenue collection in the eastern provinces of Algeria.

H_1: There is a statistically significant positive effect of Creating new tax structures on tax revenue collection in the eastern provinces of Algeria.

Table N° 7: Significance Test of Simple Linear Regression Coefficients for the Effect of Creating New Tax Structures on Tax Revenue Collection

Variable	Constant (A)	Regression Coefficient (B)
Coefficient	0.794	0.721
Standard Error	0.165	0.038
Beta	—	0.658
T-Value	3.308	22.137
Significance (Sig)	0.001	0.000
Regression Model	Tax Revenue Collection = 0.794 + (0.721 × Creating New Tax Structures)	

Source: Compiled by the researcher based on SPSS V.26 results.

As shown in Table 7, the coefficients of the simple linear regression model are statistically significant, as the significance levels for both the constant (A) and the regression coefficient (B) are below 0.05. This indicates that these values differ from zero with statistical significance, reinforcing the reliability of the model in explaining the relationship between the variables.

Furthermore, the regression coefficient (B) is 0.721, implying that each unit increase in the establishment of new tax structures leads to a 72.1% increase in tax revenue collection. This highlights the strong and positive impact of Creating these structures on the efficiency of tax revenue collection. Additionally, the T-statistic for the independent variable is 22.137, a high value that signifies the strong influence of the independent variable (Creating new tax structures) on the dependent variable (tax revenue collection).

Based on these findings, the null hypothesis, which assumes no effect between the variables, is rejected, and the alternative hypothesis is accepted:

"There is a statistically significant positive effect of Creating new tax structures on tax revenue collection in the eastern provinces of Algeria."

Conclusion

This study underscores the pivotal role of Creating new tax structures in enhancing tax revenue collection efficiency. The findings indicate that tax reforms aimed at modernizing administrative systems, adopting digital technologies, and improving tax compliance mechanisms significantly contribute to increasing tax revenues while reducing tax evasion rates. The effectiveness of these reforms, however, largely depends on the ability of tax administrations to absorb institutional changes, efficiently allocate human and technological resources, and achieve functional integration across different components of the tax system.

Despite the positive outcomes observed in this study, challenges remain regarding the readiness of tax administrations to implement these reforms and the responsiveness of taxpayers to these changes. This necessitates the development of comprehensive strategies to ensure the successful implementation of modernization efforts and the achievement of their intended objectives.

Recommendations

Based on the study's findings, several recommendations are proposed to improve tax revenue collection efficiency and enhance the effectiveness of tax reforms:

- Tax administrations should expedite the digital transformation process by adopting advanced information systems that enable the integration of various tax databases. This would help reduce errors, enhance transparency, and improve tax compliance;
- It is essential to revise tax laws to ensure their alignment with new structural reforms, particularly by simplifying administrative procedures and clearly defining penalties to combat tax evasion more effectively;
- Investing in training and capacity-building programs for tax administration employees is crucial. Training should focus on utilizing modern technologies, analyzing tax data, and improving communication skills with taxpayers;
- Tax administrations should leverage analytical and predictive models to periodically assess the effectiveness of tax reforms. This would allow for proactive adjustments based on accurate data insights;
- To enhance tax revenue collection efficiency, coordination between tax administrations, banks, and other financial institutions should be reinforced. This would facilitate financial flow tracking and the detection of undeclared activities.

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