The role of the information systems in combating tax evasion - a case study of the state directorate of taxes in M'sila

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Abstract :

This study aims at the role of the information system in combating tax evasion through a case study of the state directorate of taxes in M'sila.

  Where it was reached to present, analyze and discuss the necessary results to confront cases of tax evasion through the introduction of modern methods and systems in the field of work of information systems, as well as benefiting from the experiences of countries within the framework of the provisions of measures to reduce cases of tax evasion by building integrated and effective information systems and coming up with some suggestions and recommendations.

Keywords: Information Systems, tax evasion, Tax Directorate, M'sila.

JEL classification codes: E62 ; H71 ;H26; L86 .

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Introduction

Although the methods of obtaining tax information are rigorous, there remains a dire need to find basic principles and frameworks through which the information system is effective in the field, through the use of smooth, efficient and credible information systems in the field of providing tax authorities with various necessary data and information in order to Using them to collect taxes and reduce tax evasion from which tax interests suffer, and thus boost additional incomes to the public treasury.

Taxes are considered one of the most important internal sources of financing and one of the main revenues that governments rely on to achieve their strategic goals. Anyone familiar with tax laws finds that the state is working hard and is always searching for new, tight tax legislation that in turn contributes to raising these revenues and works to encourage taxpayers and reduce the phenomenon of evasion And tax fraud, in other words, finding means of pressure to use to force taxpayers to pay tax dues, and thus the missing funds are collected. To combat the phenomenon of tax evasion, most of the tax legislation has been approved in order to increase the tax revenues of the state, assigning the tax administration to carry out this task and developing the tax information system, whose importance lies through what It provides data and information to the tax administration for the purpose of exploiting it in combating tax evasion and fraud and limiting it, and accordingly we have chosen this subject as the information system and its role in combating fraud and tax evasion.

As a result of technological and economic developments and globalization, information systems occupy a wide position, enabling individuals to collect, process, and manage the information required to solve problems, make decisions, and evaluate performance.

In order to address this issue, we had to pose the following problem:

What is the role of the information system in combating tax evasion through a case study of the State Directorate of Taxes in M'sila?

Importance of the study

Information has become one of the important resources in managing activities in modern organizations, as well as multiple ways to process it, and various organizations have been keen to facilitate the process of obtaining it and achieving efficiency in using it to reach effective decisions that actually evaluate

the performance of institutions. All this requires reliance on an information system characterized by all specifications and characteristics, including the tax administration, which is the backbone of the national economy.

Objectives of the study

- The great trend towards the field of information systems at all levels and at all levels.
- The fact that the various studies showed that the phenomenon of tax evasion reached high rates, which led to increased interest in the need for an information system to be used to reduce the severity of this phenomenon.

Study divisions

First: the nature of information systems.

Second: State Directorate of Taxes in M'sila.

Third: the process of follow-up and exploitation of tax information.

I- The nature of information systems

Information systems are not new, as they appeared with the beginning of the industrial revolution, and this is a result of the great development that occurred in accounting technology as well as the software industry, in addition to the development in the environment in which organizations operate, and the emergence of the need for tools that help organizations in dealing with their environment by taking advantage of information technology. In order to be able to understand information systems, we must know some basic concepts such as systems and information.

1. Definition, importance and objectives of information systems

The information system plays an important and sensitive role within the organization as a producer of information, as it is considered a vital element, as on the basis of the information it produces; immediate decisions are taken for the organization.

1.1. Definition of information systems

There were many concepts that were presented for information systems, depending on the practical and scientific background of their providers. In 1991, Louden and Louden defined the information system as: "It is a set of procedures through which information is processed, stored, and disseminated for the purpose of supporting decision-making processes and achieving control in the organization". (Saber, 2007, p.08)

1.2. Importance of Information Systems

The importance of information systems lies in the following: (Tawaf, 2010, p.02)

- The effective use of information systems can help the organization evaluate its activities and evaluate results in order to correct deviations;

- creating conditions for effective decision-making by processing information in a concise and timely manner;

- Supporting cooperative work between work teams, which leads to strengthening the competitive position of the organization in the market in which it operates;

- Information systems contribute to the success of modern and multinational organizations based on competitiveness.

- Preserving the necessary historical data and information that are the basis for its work;

- Helping to predict the future of the institution and the expected possibilities in order to take the necessary precautions in the event of a defect in achieving the goals.

1.3. Objectives of Information Systems

The process of setting goals is one of the basic and important processes in any system that operates in any organization, and accordingly the goals are proven clearly and accurately in front of the administration that supervises them, and it is stipulated that these goals are not broad, general or complex, and they are represented in: (Shneiderman, 1997, p.113)

- The most important and comprehensive goal of information systems is to provide the service to the final beneficiary;

- The types of systems goals can be divided into: strategic goals, long-term goals, short-term goals, and current goals.

- Information systems aim to improve communication between the different levels and functions in the facility;

- Provides management with a vision and criteria for information needs;

- Enable quick access to information and ensure correctness and integrity of information.

It can be said that the goal of information systems, then, is to provide the necessary information for all levels of management about their current and previous state, and to predict by collecting this information, saving it, analyzing it, and putting it together in a way that helps answer important questions. (Samuelson, 1970, p.221)

2. Security and control of information systems

Information systems work to provide appropriate information for management and users to help them make various decisions, and given the importance of this information to its users, it is necessary to secure a stable environment for it, and work to preserve it by ensuring security and continuous monitoring of information systems.

2.1. Information Security

To protect the data that enters the system and helps in making decisions, security must be provided for both the system and the information as follows: (Samuelson, 1970, pp.236-237)

2.1.1. System security

The concept of system security refers to protecting the organization's information sources from theft or incorrect uses, such as: preventing information from being changed, deleted, or illegally used.

2.1.2. Information security

It is the protection of computer and non-computer equipment, facilities, data and information from dangers. It is a set of preventive procedures and measures used by the organization to preserve information and its confidentiality, whether from internal or external dangers, whether before or after entering information into the computer. There are basic elements of the information security system. Represented in:

A. Privacy: the act of leaving individuals alone without supervision by other individuals, organizations, or governments.

B. Integrity: It is ensuring that the content of the information has not been modified or tampered with.
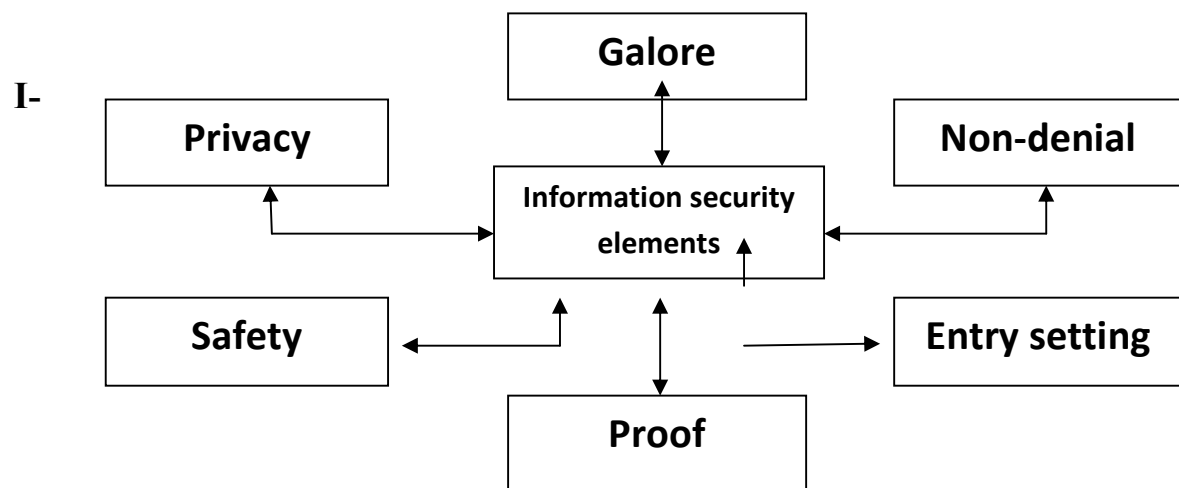
C. Evidence: The ability to prove the identity of the other party on the network, and to prove the identity of the site.

D. Providing information: Ensuring the availability of information and the continuation of the functioning of the information system.

E. Non-Repudiation: Ensuring that the person who performed an action related to the information or its locations does not deny that he or she did the action.

F. Access Control: It is defining policies, procedures, and powers, and defining the areas of use allowed for each user and their times to prevent the entry of those who do not have a legitimate right to the information system, whether from inside or outside. The following figure shows us the main elements of the information security system:

Figure No. (01): The main elements of the information security system:

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                        ┌──────────────┐
                        │    Galore    │
                        └──────────────┘
┌──────────────┐             ↕              ┌──────────────┐
│   Privacy    │     ┌────────────────┐     │  Non-denial  │
└──────────────┘ ←→  │ Information     │     └──────────────┘
                     │ security        │ ←                ↑
                     │ elements        │ ↑
┌──────────────┐     └────────────────┘     ┌──────────────┐
│    Safety    │ ←        ↕      ↕       →   │ Entry setting│
└──────────────┘                            └──────────────┘
                        ┌──────────────┐
                        │    Proof     │
                        └──────────────┘
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Source: It was prepared based on the previous information.

These elements ensure the protection of data and the prevention of risks to information and its rules.

2.2. Oversight of information systems

Oversight of information systems is represented in the methods, policies and procedures followed to ensure the provision of protection for the organization's assets, accuracy and reliability in its reports and operational applications of management. There are types of oversight of information systems, which we summarize as follows: (Al-Najjar, 2007, pp.231-135)

2.2.1. General control

It is the overall control that establishes a structure for design control and includes program control, physical control, operation control, data security control, implementation control, and administrative control.

2.2.2. Application Control

It is an essential special control for all computer applications that represents manual or automated procedures to ensure that the authorized data is complete and processed accurately, and can be classified into: control of inputs, control of processing, control of output.

3. Reasons for the success and failure of information systems

There are many factors that represent the causes of success and failure of information systems, namely:

3.1. Determinants of the success of information systems:

Among the reasons that led to the success of the information system are the following: (Manal Muhammad Al-Kurdi, 2003, pp.294-299)

3.1.1. Degree of user involvement: The concept of participation refers to the set of activities that are carried out by users or their representatives in the process of analysis, design and implementation of the system. Participation is direct if all users participate in the development of the system, and it is indirect when their representatives participate in the committee supervising the development of the system. Participation is considered real when it results in an influence in the decisions taken during the stages of establishing the system.

3.1.2. Support of the senior management of the system: The support of the senior management of the system is reflected on both the designers and the users, as both parties realize that their participation in the development of the system will be the subject of attention and care from the administration. The support of senior management ensures the provision of sufficient resources to ensure the continuity and success of the system. On the other hand, the support of senior management plays a major role in spreading the use of the system and increasing its acceptance among subordinates.

3.1.3. Personal characteristics of users: The relationship between personal characteristics and the success of information systems is due to the fact that these factors influence how individuals interpret information, and are determinants of how they operate information. Where managers deal with the

information system through their distinctive and unique characteristics resulting from their different experiences and backgrounds.

3.1.4. Characteristics of decisions and the work environment: Many information systems researches indicated the importance of the characteristics of the user's decisions and work environment in determining the success and effectiveness of the system. The degree of structuring decisions, in addition to the change and complexity of the work, are among the factors related to the success of information systems, through:

A. The degree of structuring of decisions: Decisions are considered structural to the extent that they are repetitive and not new, and there is a specific and known way to deal with them, while non-structural decisions are to the extent that they are new, non-specific, and important, and there is no specific way to address them either because they did not appear before Or because it is complex and unclear in nature, or because it is so important that it deserves its own treatment.

B. Characteristics of the users' work environment: The organization's work environment determines the characteristics of the information that must be provided through the information system, the form of this information and how it is presented. The organization's environment can be defined as: a set of physical and social factors that directly affect decision-making behavior by individuals within the organization.

3.2. Determinants of information system failure

Among the determinants that led to the failure of information systems within organizations are the following: (Saber, 2007, pp.179-181)

3.2.1. Attention to devices, not goals: Information systems operators tend to provide innovative and advanced information technology to meet the organization's information needs. These technicians often focus on the efficiency of the hardware and software used rather than on organizational performance goals. Some organizations tend to acquire computer-based information systems in order to replace the human element with these systems, and not with the aim of increasing the capabilities and capabilities of the human element.

3.2.2. Poor identification of information needs: If sufficient time and special care are not given when determining information needs, this will lead to the identification of inappropriate specifications in the information systems that are being designed or acquired. Poor identification of needs from the outset often

leads to problems in the use of information systems, and also to the incompatibility of the systems used with organizational needs.

3.2.3. Inaccuracy in Requesting Information Resources: Dissatisfaction with the operation of information systems hardware and software is often the result of the organization not requesting information resources with the same degree of diligence with which it requests other resources.

3.2.4. Non-participation of system users: It is preferable that a computer-based information systems specialist allow users of these systems to share the responsibility of operating the information. Most information systems specialists do not like direct interaction with users of systems, because users of systems often have basic tasks that they want to accomplish, which reduces the chances of their cooperation with information systems specialists.

3.2.5. Conflict between Information Systems Professional and Users: The educational and cultural background of a systems specialist is usually different from the educational and cultural background of its users. Their interests and views differ on many organizational and technological matters. These differences are reflected in the different approaches used by each party in solving problems.

II- State Directorate of Taxes in M'sila

With the increase and exacerbation of the phenomenon of tax evasion in Algeria, the success of the tax reforms produced by Algeria in the year 1992 is linked to the creation of an information system to combat evasion, and depends on the effectiveness of the departments in charge of control, so the tax administration in Algeria in general and the state directorate in M'sila must lay the foundations of a secure information system to provide all information related to the elimination of all kinds of tax evasion and fraud.

1. Historical overview

By virtue of Presidential Decree No. 91/60 of February 27, 1991, the State Directorate of Taxes was established in a specific manner to organize the external interests of the tax administration and its functions after its independence from the Directorate of Financial Coordination. The latter included five directorates, namely: (Gazette, 2009, pp.22-23)

- Sub-Directorate of Taxes, Collection and Receipt;

- Sub-Directorate of State Properties;

- Land Survey Sub-Directorate;

- Sub-Directorate of Treasury Survey;

- Sub-Directorate of Tax Control.

It started with three directorates:

- Sub-Directorate of means;

- Sub-Directorate of Tax Operations and Collections;

- Sub-Directorate of Disputes and Tax Control.

Pursuant to Resolution 484 of July 12, 1998 defining the regional scope, organization, and competence of the regional directorates and state directorates of taxes, the state directorates of taxes in M'sila became organized into five sub-directorates, which are as follows:

- Sub-Directorate of Tax Operations;

- Sub-Directorate of Tax Control;

- Sub-Directorate of Collection;

- Sub-Directorate for Disputes;

- Sub-Directorate of means.

The relationship between the Regional Directorate of Taxes in Setif and the State Directorate of Taxes in M'sila is also considered a sound one, as the latter is committed to informing the regional directorate of all statistical tables prepared periodically and provided for in the applicable regulation, and to present all data and reports related to the functioning of interests or the application of tax legislation and regulation. To fulfill all access requests issued by the Regional Directorate of Setif, and to make available to it, in general, all the information that enables it to exercise its powers.

2. The organizational structure of the State Directorate of Taxes

The State Tax Directorate is divided into five sub-directorates, which in turn are divided into several offices. These directorates can be clarified according to their tasks as follows: (Osreer, 2008, pp.83-84)

2.1. Sub-Directorate of Tax Control:

Consists of:

- Cards office: performs implicit monitoring.

- The Office of Searching for Tax Article: It carries out the monitoring process in the workplace, and they are like the collection police.

- Office of Tax Reviews: in-depth monitoring of taxpayers in a specific place and at a specific time for a period of four years, i.e. a general review.

2.2. Sub-Directorate of Collection

Consists of:

- Collection Control Office: Monitoring people who have paid taxes and who have not.

- Clearance Office: Settlement of state, municipal and international taxes.

- Office of Financial Management of Municipalities and Public Institutions: management of public funds in the state.

2.3. Sub-Directorate for Disputes

Consists of:

- Office of Administrative and Judicial Disputes: Re-examination of cases rejected by the Office of Tax Disputes.

- Tax Disputes Office: The office of arbitration between the tax administration and taxpayers on the amount of tax.

- Office of Notifications and Orders: Studying and adjudicating cases related to the Office of Tax Disputes.

2.4. Sub-Directorate of Tax Operations

Consists of:

- Information and Organization Office: An office dedicated to informing taxpayers and organizing decisions between offices.

- Statistics Office: an office specializing in statistics.

- Office of Departments and Matrixes: an office for tables.

2.5. Sub-Directorate of Means and Users

Consists of:

- Users Office: An office for workers.

- Budget Office: How to manage the budget.

- Office of means: how to manage the means.

III- The process of following up and exploiting tax information

The detailed tables below show the results of the information obtained by the Tax Information Search Office, which was released by the interests of public accountants. The statistical disclosure of these results during the year 2020 was as follows:

1. The first quarter of 2020

Table No. (01): Statistical statement of the results of the information extracted from the services of public accountants (Triple 1).

Amount of corrections made			Number of taxpayers		Total amount paid	Inspectorate
Total	sanctions	Additional rights	offenders	directed		
1017590	159321	858269	5	186	1089722396	Jaafra
1830204	399905	1430299	2	54	853147215	Waawaa M.
/	/	/	/	71	842536219	Ichbilia
1063871	207060	856811	1	51	159319533	Hammam Edhalaa
2821173	576830	2244342	4	18	123886649	Sidi Aissa
1605665	328312	1277353	3	75	417680019	J. Kerdada
3551895	744515	2807380	21	58	430202120	J. Azzedine
1413933	249313	1164620	14	125	108932452	J. Thamer
/	/	/	/	/	/	Chellal

42772840	866651	3410533	2	134	901525005	Ouled Derradj
5501775	1295045	4206730	9	41	191858299	Megra
1463101	292620	1170482	1	48	97971049	Ben Srour
14117483	231901	1185582	10	100	242288976	Ain El Melh
24946384	5192152	19754131	67	961	5531069932	Total

Source: Sub-Directorate of Tax Control.

2. The second quarter of 2020

Table No. (02): Statistical statement of the results of the information extracted from the services of public accountants (Triple 2).

The amount of corrections made			The number of taxpayers		Total amount paid	Inspectorate
Total	sanctions	Additional rights	offenders	directed		
16762746	1934737	14828009	12	229	4461387404	Jaafra
2088851	768879	1319972	3	63	4934353	Waawaa M.
1782990	369473	1413517	2	157	2795331796	Ichbilia
1385526	267692	1117834	1	10	47192096	Hammam Edhalaa
/	/	/	/	45	4826850460	Sidi Aissa
/	/	/	/	22	60315835	J. Kerdada
1839947	650282	1189665	4	31	514984270	J. Azzedine
2094136	410846	1683290	9	107	588733163	J. Thamer
/	/	/	/	/	/	Chellal
7185788	1470686	5715102	14	51	385324808	Ouled Derradj

7454688	1490938	596750	11	28	278442608	Megra
939713	219094	720619	4	14	101232623	Ben Srour
5309173	2045645	3263528	16	106	299735141	Ain El Melh
46843558	9628272	37215286	76	863	10020299530	Total

Source: Sub-Directorate of Tax Control.

3. The third quarter of 2020

Table No. (03): Statistical statement of the results of the information extracted from the services of public accountants (Triple 3)

The amount of corrections made			The number of taxpayers		Total amount paid	Inspectorate
Total	sanctions	Additional rights	offenders	directed		
12854716	2872787	9981929	31	300	3521720460	Jaafra
279681	35631	244050	1	29	40631208	Waawaa M.
2211003	440648	1770355	5	177	2911972209	Ichbilia
/	/	/	/	14	40447744	Hammam Edhalaa
2772264	573251	2199013	3	38	345787317	Sidi Aissa
/	/	/	/	41	76912194	J. Kerdada
2835925	523656	2312269	14	55	126415018	J. Azzedine
4232888	834918	3397970	10	32	127671545	J. Thamer
/	/	/	/	/	/	Chellal
3918800	783760	3135040	9	59	211783698	Ouled Derradj
179742	35948	143794	3	67	1002640657	Megra
1972805	317789	1655016	15	35	73802963	Ben Srour

| 7185794 | 2364291 | 4821503 | 27 | 141 | 379329642 | Ain El Melh |
| 38443618 | 8782679 | 29660939 | 118 | 988 | 8859114655 | Total |

Source: Sub-Directorate of Tax Control.

4. The fourth quarter of 2020

Table No. (04): Statistical statement of the results of the information extracted from the services of public accountants (Triple 4).

The amount of corrections made			The number of taxpayers		Total amount paid	Inspectorate
Total	Sanctions	Additional rights	offenders	directed		
3554869	814506	2740363	9	822	11774860671	Jaafra
505870	101174	404696	1	127	284474804	Waawaa M.
5286673	1207751	4078922	11	269	6777154167	Ichbilia
1397336	259330	1138006	10	113	335182373	Hammam Edhalaa
2513038	501891	2011147	5	21	213689201	Sidi Aissa
647834	100091	547743	3	107	429350205	J. Kerdada
2137447	593807	1543640	9	147	699908632	J. Azzedine
3421883	646733	2775150	20	64	154654991	J. Thamer
19727870	3958939	15768931	4	4	717412300	Chellal
5476129	1083228	4392901	6	98	989774163	Ouled Derradj
1447990	289598	1158392	5	59	531001144	Megra
-	-	-	-	7	44249113	Ben Srour
15220491	71045597	8115894	12	62	405411069	Ain El Melh
61337430	16661645	44675785	95	1900	233357123079	Total

Source: Sub-Directorate of Tax Control.

5. Commenting on the results of the statistical report for the year 2020

What is noted from the previous tables is that the total amount collected from the interests of public accountants for the year 2020 from all state inspectorates in the fourth trimester is greater than it from the first, second and third trimesters, and this is due to the percentage of the number of taxpayers directed, as in the language of the first trimester 20.39%, the second 18.31% and the third 20.96% % and the fourth 40.32%, however, the number of violators who were registered in this last trio was small compared to the number of taxpayers, while the highest percentage of violators was recorded in the third trio, which amounted to 33.14%, and in the fourth, second and first trio it amounted to: 26.68% - 21.34% - 18.82% on Respectively, however, the total amount of penalties for the fourth trimester was higher than the amount of penalties for the third trimester, and for the first and second trimesters, the number of violators was reasonable compared to the taxpayers.

6. A vision of the tax information system at the state level

This system is based on the collection of tax information from the Tax Information Search Office and the Cards Office. This information is entered into the automated information and becomes at the disposal of all tax inspectorates, tax collections, and the Public Prosecution Office of the Directorate of Tax Disputes and Tax Control for use within the limits of the powers of each one.

The tax information system at the state level can be visualized as follows:

Figure No. (02): Visualization of the information system at the state
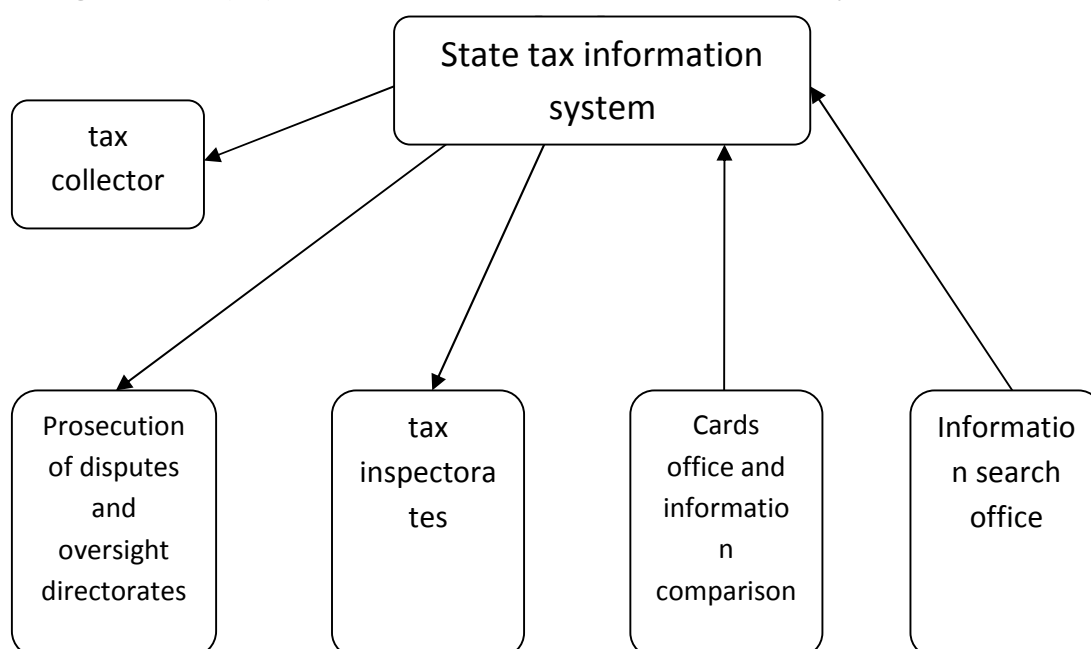
Source: Prepared by the researcher, based on: Kamal Razik and Fasili Abdel Halim, Lectures on the Algerian Information System, p.18.

IV- Conclusion

Cases of tax evasion are intertwined and overlapped with the phenomenon of money laundering and corruption. One of the main reasons that helped these cases flourish quickly is the weakness of the role of the information system and various technological developments, especially in the field of tax payment and money collection.

Accordingly, it is necessary to confront cases of tax evasion by introducing modern methods and systems in the field of information systems work, as well as benefiting from the experiences of countries within the framework of the provisions of procedures to reduce cases of tax evasion through building integrated and effective accounting information systems. The phenomenon of tax evasion is considered a global phenomenon affecting all economies of countries, and fighting it and working to reduce it is not easy due to the different tax systems, as well as the innovation of taxpayers for fraudulent methods that are difficult to control and control, as the phenomenon may make the major balances of the state in danger because of the negative effects it leaves. on the economy in general, and on the public treasury in particular.

Therefore, the information system is one of the most effective ways to reduce the phenomenon, so it is necessary to work on developing and updating it in line with the developments taking place in this field, as well as in order to keep pace with fraudulent methods that taxpayers may resort to and work to narrow them down, and an effective information system works to facilitate monitoring tasks And continuous follow-up of the taxpayers and their activities by the tax administration, as well as facilitating access to tax information, which is considered the main link to confront the phenomenon of tax evasion**.**

Study Results

Through our study, we conclude a number of results, which we summarize as follows:

- There are several indicators through which the effectiveness of the information system is judged or not, including the appropriate timing in providing tax information, the extent of comprehensiveness and totality in the information provided, the extent of validity and accuracy of the tax information provided, in addition to the efficiency of the human element used for the information system.

- The information system applied at the level of the studied directorates is an outdated traditional system that still relies on paper documents and complex documents.

- The role of the information system and its impact on providing financial reports that can be used to reduce cases of tax evasion. Where and through our knowledge of the work process in the Sub-Directorate of Tax Control and the Directorate of Taxes in the wilaya of M'sila.

- Through our visit to the Messila branch, we extracted many difficulties that impede the transfer of information, represented in the absence of a clear and permanent strategy for the tax administration to prepare effective information systems, and that the majority of taxpayers' estimates are done on a precautionary basis and not final, i. Information is most often due to the lack of an effective information system.

- The use of the traditional methods used in the transfer of tax information led to a lack of smoothness in its transmission, due to the lack of material means used and available compared to the requirements of the work to be accomplished at the level of the directorate, in addition to not keeping pace with the developments taking place and updated laws and the lack of training of the staff.

- We conclude that information represents an important element in our contemporary life, as it has become a strategic resource that organizations depend on in facing the conditions of competition. Information that helps in evaluating performance and making various decisions.

- Information systems are the vital element within organizations, and we cannot ignore that information systems is the integration of the human element with material means (machines, computers...) where the human element is responsible for preparing the appropriate information at the necessary time, so an information system must be specified whenever it is required. The use of information systems has expanded significantly in the banking sector, due to its speed in completing banking operations, reducing time and effort, accuracy in preparing lists, reducing costs, improving quality, and providing good service to customers.

Suggestions

- In order for the tax information system to succeed in performing its role effectively, it is necessary to introduce digitization through modern automated media devices connected to high-resolution networks, and work to link all tax departments among themselves with digital networks and platforms, and also link them to all sources of tax information (customs administration - banks - Insurance companies - ...) to facilitate the search and use of tax information and its exploitation in the fight against tax evasion.

- In order to obtain the largest possible number of information, we suggest increasing the employees assigned to search for tax information and providing them with sufficient material means to complete their work in less time and costs and collect additional incomes to the state treasury, while restructuring and training them in line with the developments taking place.

V - Bibliography list

- Abdul Khaliq Hadi Tawaf: Lectures in Information Systems and Decision Making, College of Commerce and Economics, Amran University, Amman, 2010.
- Fayez Juma Saleh Al-Najjar: Management Information Systems, Dar Hamed for Publishing and Distribution, 2nd Edition, Amman, Jordan, 2007.
- Kamel Rezig and Fasili Abdel Halim, Lectures on the Algerian Information System.
- Manal Mohamed Al-Kurdi, Galal Ibrahim Al-Abed: Introduction to Management Information Systems, New University House, Alexandria, Egypt, 2003.
- Mohamed Abdel Alim Saber: Management Information Systems, Dar Al-Fikr Al-Jamia, 1st Edition, Alexandria, Egypt, 2007.
- Mohamed Hammou and Menouer Oussarir, Collection of Institutions, Library of the Algerian Company Boudaoud, first edition.
- Official Gazette, March 2009, No. 20.
- Samuelson K , information system analysis to meet user needs, Stockholm, the royal institute of technology, 1970.
- Shneiderman, management systems information processing and management,1997.