Reforming Public Administration through Transitioning towards E-administration – Field Study

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Abstract:

This study aims at finding out the impact of transitioning towards E-administration on reforming public administration in the tax directorate of the Province of Tamanghasset, this involves addressing various challenges facing the modernization and reform of public administration, as well as the requirements of the success of the E-administration adoption project, through studying a sample of the population of the tax directorate employees in the Province of Tamanghasset.

The study concluded that the adoption of the E-administration project has significantly contributed to the modernization and reform of the tax directorate in the Province of Tamanghasset.

Keywords: Reforming public administration; E-administration; service quality; information and communication technology.
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1. INTRODUCTION

Reforming public administration is considered one of the most important priorities that have to be addressed, with the aim of getting rid of the traditional administration's practices, which have established nepotism, lack of transparency, and the spread of bureaucracy in administrative transactions, as a matter of fact, citizens find themselves lost in the corridors of administration in order to obtain services that meet the minimum of their needs, aspiring to reach a level enjoyed by their counterparts in developed countries. Through this study, we attempted to investigate the impact of transitioning towards E-administration on reforming public administration and promoting the level of services provided to citizens. Based on the aforementioned and in light of the efforts of the state in attempting to restructure and reform its agencies, the following problem statement can be formulated**.**

What is the impact of the transition to the use of E-administration on modernizing and reforming public administration in the Tax Directorate of the Province of Tamanghasset?

To answer this problem, we formulated the following sub-questions:

-Are there any challenges facing the modernization and reform of public administration in the tax directorate of the Province of Tamanghasset?

-What are the requirements that guarantee the success of adopting the public administration project?

- What are the reasons behind transitioning towards E-administration?

The main hypothesis: There is a clear impact of adopting the e-administration project on the modernization and reform of public administration in the Tax Directorate of the Province of Tamanghasset.

The Sub-Hypothesis:

There are no statistically significant differences at the significance level ($\alpha \leq 0.05$) in the challenges of modernizing and reforming public administration and the requirements of transitioning towards e-administration according to the variable of mastering the use communication and computer technologies.

Study Significance: This study draws its significance from the issue of reforming public administration being an essential requirement that aims at improving the public service quality provided on one hand, on the other hand, e-administration is considered one of the cornerstones of new public management. Therefore, the study significance lies in finding out the impact of adopting e-administration, in the quest of modernizing and reforming the tax directorate of the Province of Tamanghasset.

Study Methodology: To answer the study's questions, we employed the appropriate descriptive-analytical methodology for describing and analyzing the studied phenomenon to determine the theoretical aspect of the study. We utilized the statistical method in processing the data in the form of the following statistical models: frequencies and percentages for personal variables and arithmetic means and standard deviations for responses from the study sample across all ranges of the study tool. The statistical software SPSS-26 was employed in the data analysis process.

2. Axis One: The Theoretical Framework of Reforming Public Administration

2.1 **The Concept of Reforming Public Administration:**

It is reconsidering the methods of public administration represented by the state institutions, this process is actually a demand in many countries, whether developed or developing, as it represents restoring the state's role in providing services to citizens. As a matter of fact, the reform process is essential in achieving development (Harouch, 2013, p. 29).

It is also known as a process of change, rationalization or update, as the administration is reset and provided with the latest updates. This is done within the main administration pillar: 'organizational structure, personnel, and work method'. Moreover, it is a permanent and continuous process that relies on individuals who are prepared and trained for this mission (Laarabi, 2013, p. 59).

Reforming Public administration also refers to the efforts made with the aim of making changes in the systems of public administration, addressing the areas facing issues, in order to make them capable of performing their duties effectively and efficiently (Kafi, 2019, p. 37).

Based on the previous definitions, it can be concluded that reforming public

administration is an organized and systematic process that aims at adapting and updating the various functions of administration to align with the evolving technology, in order to eliminate the issues and deficiencies of traditional administration, and thus reach a performance characterized by competency and efficiency in providing services to citizens.

2.2 The Objectives of Reforming Public Administration:

The process of reforming public administration aims at:

-Aligning public administration with the tasks of the state and satisfying the various needs of citizens.

-Updating and renewing public administration at all its levels and structural and functional dimensions, contributing to eliminating the problems it faces.

-Addressing the political, economic, developmental, and organizational crises faced by public administration by proposing suitable solutions.

-Developing and enhancing a culture of treating the citizens positively (with good manners) by responding to their professional demands (Kafi, 2019, pp. 47-48).

2.3 Stages of Reforming Public Administration: The process of reforming public administration goes through various stages that can be referred to as follows:

-First Stage: In this stage, sickness symptoms begin to appear in the administrative structure of the organization, including:

-The inability to achieve the desired goals by the organization or some of its departments.

-The emergence of problems in communication between the organization's departments or with its external environment to which it belongs.

-The inability to coordinate among the various departments of the organization.

-The dissatisfaction of both employees within the organization and customers alike with the performance of the organization.

-The inability to accurately predict problems before they occur and effectively plan for finding appropriate solutions.

When these symptoms or some of them appear within the organization, it is imperative for it to take action and initiate the reform process.

-Second Stage: In this stage, the desired goals and objectives from the administration reform process are set, formulated as measurable targets. This enables developing a strategy that aligns with the adopted reform process, determining priorities and selecting appropriate means to achieve them.

-Third Stage: It is the stage in which reforming public administration is initiated; it is a somewhat difficult process, given the resistance to change forces within the organization, which requires adopting some methods that help in overcoming these resistant forces, such as the abrupt (shock) method or the gradual (defensive) method. The choice between the two approaches depends on the intensity of the resistance to change forces.

-Fourth Stage: It is known as the stage of assessing and evaluating the administrative reform, where the results of the reform process are measured and corrected in case of any deviations from the desired results (Raslan, 2019, pp. 42-43).

2.4 Challenges of Reforming Public Administration:

The process of reforming public administration faces various challenges and difficulties in translating it into reality. Some of these challenges are linked to the nature of the system adopted in managing the administration, while others are dependent on the available means and tools. Additionally, some challenges are connected to the legal framework regulating public administration. Noteworthy points include (Rouchou, 2019, pp. 49-50):

-A lack of a forward-looking vision for management: given the absence of a standardized management method and the lack of a clear strategic vision for the future, this leads to the spread of chaotic and random management based on limited ideas and a simplistic vision.

-Challenges related to human resources: due to the spread of the phenomenon of moral and administrative corruption, along with the proliferation of opportunism, inflexibility and change resistance, as well as not linking wages to productivity, competency and expertise. Moreover, there is a shortage of qualified personnel to carry out the administrative process (Raslan, 2019, p. 45).

-Challenges related to the financial aspect: the financial aspect is considered one of the most important success factors of any developmental or growth-oriented work related to improving public services pertaining to the daily lives of citizens (Rouchou, 2019, p. 50).

3. Axis Two: The Conceptual Framework of E-Administration

3.1 E-administration Definition: E-administration is defined as all processes that involve the transformation into performing administrative tasks electronically. This is done through restructuring the execution of those tasks, with the aim of improving the overall performance, as well as achieving economic efficiency, and flexibility in resource utilization, aiming to execute transactions quickly and electronically (Kafi, 2019, p. 185).

E-administration is also known as transforming traditional administrative tasks, services and long complicated procedures that use paper into electronic tasks that are quickly and precisely executed. Some researchers describe e-administration as a new approach that relies on executing tasks and transactions conducted between citizens and employees in public administrations, as well as within the administration itself, using electronic means (Djeradat, Arikat, & Elchikh, 2019, p. 311).

The World Bank defines it as the process of using information and communication technology by governmental institutions, such as Wide Area Information Networks, the Intranet network, along with mobile phone communication methods. This has the capability to transform and reshape relationships with citizens, businessmen, and various governmental institutions (Moulay & Chenoufi, 2021, p. 144).

Based on the previous definitions, a comprehensive definition for E-administration can be formulated as using information technology and various communication networks by public administration, in order to connect citizens, economic entities, and various government departments. The aim is to facilitate the delivery and exchange of high-quality public services efficiently among them, anytime and anywhere.

3.2 E-Administration Objectives: The orientation towards adopting the E-administration project in public administration aims to achieve various objectives that contribute to improving the level of the public utility

competency by:

-Reducing the effort required to complete transactions and send/receive them in record time, for example, by utilizing email systems instead of traditional incoming and outgoing mail records.

-Reducing the costs of administrative procedures and processes, along with taking into consideration the elements of precision and comprehensiveness, in order to cover all aspects of transactions, administrative processes and associated units, provide good information to decision-making centers and facilitate information exchange (Abu Hashem Elsharif, Abdelalim, & Bayoumi, 2013, p. 69).

-Possessing the capability to absorb a larger number of customers simultaneously, as a matter of fact, the capacity of traditional administration to conduct customer transactions remain limited, often forcing them to wait in long lines.

-Eliminating or minimizing the direct interaction between the two parties of the transaction (employee and customer) to the greatest extent possible, thereby reducing the impact of personal relationships and influence in handling customer-related transactions without discrimination.

-Abolishing the national system of paper archive and replacing it with an electronic archive, in order to achieve flexibility in dealing with documents and benefiting from them, as well as facilitating information access, making it available at any time.

-Nullifying the impact of the time factor, such as the end of working hours, holidays or vacations in conducting administrative transactions as much as possible, enabling citizens and employees to complete their transactions from their offices or homes (Kafi, 2019, pp. 198-199).

3.3Requirements for the Success of the E-administration Project:

In order for any project to succeed, a suitable environment must be provided to help it glow. The E-administration project is no different, as public administration is required to provide it with various regulatory, human, technical and technological components, along with establishing legislations and laws that help adopting the project. The requirements include:

-Regulatory and Administrative Requirements: There is a set of

administrative measures that have to be implemented, including the establishment of strategies and plans that outline a clear future vision on what's called the E-administration project. This is achieved through highlighting the dimensions and aspired goals from it, along with determining the roles that can be played by this project to serve individuals, administrations and society as a whole, as well as encouraging enthusiastic and conscious leadership, contributing to the development of relationships between different administrative organizations, in addition to finding solutions to improve public service (Harech & Youcef Khoudja, 2021, p. 171).

-Legal and Legislative Requirements: There is a necessity for issuing laws, legislations and procedures that facilitate transitioning towards E-administration, given that the majority of existent legislations and laws were established in a traditional environment, as they were established for performing tasks based on direct encounters between authenticated certificates. As a matter of fact, the transition to e-administration requires a different legal and legislative environment that facilitates the work of e-administration, adding legitimacy and credibility to it, along with ensuring rights protection, and guaranteeing the preservation of privacy (Kaaid & Banin, 2018, p. 152).

-Requirements Related to the Technical and Technological Aspect: Given the limited spread and usage of the Internet network, due to the inequality in the distribution and disparity of communication infrastructure from one region to another, which has created a digital gap with developed countries around the world, as well as not relying on electronic financial transactions between the administration and citizens, due to the absence of a culture for such transactions among Algerian citizens. This necessitates reconsidering resource distribution with fairness, along with providing necessary infrastructure across all provinces of the country. Additionally, facilitating access to technology and its usage by citizens is crucial (Bahloul & Boudiaf, 2020, p. 256).

-Requirements Related to the Material and Financial Aspect: Implementing E-administration requires substantial financial resources to provide information technology across the entire national territory, in

addition to preparing infrastructure, financing maintenance and providing periodic courses for employees to keep up with the swift technological advancements, along with promoting the use of the internet and extending its reach to all remote and urban areas with the aim of achieving the principle of equality in accessing public services.

4. Axis Three: Case Study Tax Directorate of the Province of Tamanghasset

In order to answer the main problem and test the hypotheses, we conducted a practical study in the tax directorate of the Province of Tamanghasset, through selecting a sample that comprises 37 employees of different categories and studying them through the distributed questionnaire.

4.1 Study Methodology: To answer the study's questions, we employed the appropriate descriptive-analytical methodology for describing and analyzing the studied phenomenon to determine the theoretical aspect of the study. We utilized the statistical method in processing the data in the form of the following statistical models: frequencies and percentages for personal variables and arithmetic means and standard deviations for responses from the study sample across all domains of the study tool. The statistical software SPSS was employed in the data analysis process.

-Study Population and Samples: The study population consists of all the employees of the Tax Directorate in the Province of Tamanghasset. For the purpose of conducting the study, a sample of (37) employees were selected.

-Data Collection Tools: In order to achieve the study purposes, we used a questionnaire as a data collection tool; we distributed forms to 45 employees working for the tax directorate of the Province of Tamanghasset. We retrieved 40 forms, of which 37 were valid, 5 were not returned, and 3 were discarded due to inadequate completion. Thus, the study's sample consisted of 37 employees. We analyzed the study results through simple correlation analysis, simple regression analysis, and utilized statistical methods relying on the SPSS program.

-Study Model: The study consists of two main variables: an independent variable, which is the transition towards e-administration with its characteristics, objectives, implementation areas, and success requirements. And a dependent variable represented by reforming and modernizing public

administration with its objectives, stages and challenges.

-Study Tool Validity: In order to verify the face validity of the questionnaire's content, the questionnaire was presented to a group of professors, with the aim of arbitrating it and checking the compatibility of its statements to the study axes, in terms of their comprehensiveness and the diversity of their content. Therefore, in light of their suggestions and remarks, some items were modified; some were omitted, while others were added, in order to align with the objectives of studying the sample.

Moreover, we have verified the validity of the tool's structural consistency to ensure the extent to which it achieves the intended objectives, this was done by calculating the Pearson correlation coefficient between the scores of each item within the study axes, Where the validity coefficient value for both the independent and dependent variables, as well as the questionnaire as a whole, approached 0,92; indicating a high level of validity of the structural consistency of the elements of the questionnaire axes. Therefore, it is suitable for measuring what it was designed to measure.

Study Tool Reliability: To ensure the reliability of the study tool, the calculation method of Cronbach's alpha coefficient was employed for the statements of the questionnaire axes. The results are presented in the following table:

Table 1: The Value of the Reliability Coefficient for the Internal Consistency of the Study Variables

Axis	Challenges of reforming public administration	Reasons for the transition towards e administration	Requirements for the success of the e-administration project	The questionnaire as a whole
The number of statements	5	4	5	14
Cronbach's alpha coefficient	0,80	0,66	0,78	0,89

Source: Prepared by the researchers relying on the outputs of the SPSS program

From the table above, it is evident that the Cronbach's Alpha coefficient for the entire tool (14 statements) reached 0,89; which is equivalent to "89%" This value is higher than the accepted value of 0,60; The reliability of the axes ranged between 0,66 as a minimum and 0,89 as a maximum. This indicates that the questionnaire exhibits a very high level of reliability,

which is a good and acceptable value for the purposes of implementing the study.

- **Scale Correction:** The arithmetic means were classified after using a Likert five-point scale on the study areas as follows:

[1; 1,79] Strongly Disagree. [1,80; 2.59] Disagree. [2,60; 3,39] Neutral.
[3,40; 4,19] Agree. [4,20; 5] Strongly Agree.

4.2 Studying the Sample Characteristics:

The results are presented in the following table:

Table 2: Illustrates the Distribution of Sample Individuals According to Personal Variables

Variable	Category	Frequencies	Percentage
Gendre	Male	20	54%
	Female	17	46%
	Total	37	100%
Age	Lessthan 30 years old	3	8%
	31 to 40 years old	15	41%
	41 to 50 years old	16	43%
	Over 50 years old	3	8%
	Total	37	100%
Educationallevel	No Education	1	3%
	Middle schooleducation	1	3%
	Secondary schooleducation	12	32%
	Highereducation	18	49%
	Postgraduateeducation	5	14%
	Total	37	100%
Job	Professional assistant	2	5%
	Administrative assistant	9	24%
	Cadre	22	59%
	Senior cadre	4	11%
	Total	37	100%
Mastering the use of communication and computer technologies	Weak	6	16%
	Medium	21	57%
	Good	10	27%
	Total	37	100%

Source: Prepared by the researchers relying on the outputs of the SPSS program

From the table above, we can observe the following:

- **Gender Variable:** the majority of the study sample consists of males, with a total of 20 males representing 54%, while the female category represents

46%, with a total of 17 females. This is attributed to the nature of the work in the tax directorate of the Province of Tamanghasset, which often requires relying on the male element for field visits.

- Age Variable: it appears that the majority of the sample members fall within the age groups of 41 to 51 years and 31 to 40 years, with proportions of 43% and 41%, respectively. The least represented individuals in the sample are those aged less than 30 years and more than 50 years, constituting 8% in total, which is equivalent to 6 individuals. This can be explained by the freeze on recruitment processes and the retirement of many employees by the end of the year 2019.

- Educational Level Variable: the majority of the sample individuals hold a higher education degree, comprising 49% of the sample and consisting of 18 individuals, followed by those with secondary education, representing 32% of the sample and consisting of 12 individuals. This can be attributed to the nature of the work, which requires a distinguished educational level, reflecting the Tax Directorate of the Province of Tamanghasset commitment to employing individuals with higher degrees. The rest of the sample is distributed with very low proportions across other educational levels.

- Job Variable: The majority of employees are cadres (22 employees), representing 59% of the sample, followed by 9 administrative assistants, constituting 24% of the sample. The remaining employees, a small number, include senior cadres and professional assistants.

- Mastering the Use Communication and Computer Technologies Variable: The majority of employees, 21 employees (57%), have an intermediate level of proficiency in mastering the use Communication and Computer Technologies. Additionally, 10 of them (27%) are proficient in using these technologies well, while the minority, representing 16% of the total employees, has a weak command of Communication and Computer Technologies. This is attributed to the nature of the work that requires the use of computer technology.

4.3 Studying the Study axes:

4.3.1 Studying the Level of Challenges Facing Public Administration Reform in the Tax Directorate of the Province of Tamanghasset:

To answer the first question: "are there challenges facing the modernization

and reform of public administration in the tax directorate of the Province of Tamanghasset?" the arithmetic means and standard deviations for the scale items were calculated. The table below presents the score for each statement based on the previously mentioned scale correction, along with the ranking of each statement according to the calculated arithmetic means for the items.

Table 3: Illustrates the responses of the sample individuals to the items of the axis "challenges of reforming public administration."

N°	Statement	Arithemeticmean	Standard deviation	Acceptance Score	Rank
1	The institution has a forward-looking vision on reforming public administration.	3,32	1,23	Medium	02
2	The institution's employees are open to change in the way the institution is managed.	3,54	1,07	High	01
3	There is a clear correlation between bonuses and the quality of service provided by the employee.	2,41	1,04	Low	05
4	The institution allocates significant amounts of money in order to improve the service quality provided to customers	2,70	1,24	Medium	04
5	The Tax Directorate provides computers and communication networks to all its employees	2,73	1,39	Medium	03
The axis as a whole: Challenges of reforming public administration		2,94	1,19	Medium	/

Source: Prepared by the researchers relying on the outputs of the SPSS program

The table above shows that the arithmetic means for the statements of the Public Administration Reform Challenges scale ranged from 3,54 to 2,41. Item 02, which states, "The institution's employees are open to change in the way the institution is managed," ranked first with a high score, with an arithmetic mean of 3,54 and a standard deviation of 1,07. 54,1% of the study sample agreed that they are open to change in the way their institution

is managed. Following were items 01, 05, and 04 with neutral average scores. Lastly, item 03 had a low score with an arithmetic mean of 2,41 and a standard deviation of 1,04. About 43,2% of the sample disagreed that the Tax Directorate of the Province of Tamanghasset associates bonuses with the quality of service provided by employees.

The arithmetic mean for the entire range of 'Challenges of Public Administration Reform' was 2,94, indicating a moderate score according to the majority of scores for the items in the range. Therefore, we conclude that there are challenges hindering public administration reform to a moderate and neutral extent.

4.3.2 Studying the Reasons for the Transition to E-administration in the Tax Directorate of Tamanghasset:

Answering the second question: what are the reasons for the Transition to E-administration?

Table 4: the responses of the sample individuals to the items of the reasons for the Transition to E-administration

N°	Statement	Arithemeticmean	Standard deviation	Acceptance Score	Rank
1	It takes a lot of time to complete customer transactions	3,97	1,14	High	1
2	There is difficulty in monitoring and evaluating the performance of employees electronically	3,16	1,19	Medium	3
3	Easy access to information and sharing it with different departments	3,68	1,27	High	2
4	The Tax Directorate has a database that facilitates dealing with other government institutions	2,68	1,27	Medium	4
	Reasons for the transiting towards E- administration	3,37	1,22	Medium	/

Source: Prepared by the researchers relying on the outputs of the SPSS program

The table above shows that the arithmetic means for the scale's statements ranged from 3,97 to 2,68. Item 01 ranked first with a high score, where 35,1% of the sample agreed that completing customer transactions requires a lot of time. On the other hand, item 04 ranked last with a moderate score, with an arithmetic mean of 2,68 and a standard deviation of 1,27. About 21,6% of the sample expressed neutrality regarding the Tax Directorate's availability of a database that facilitates dealing with other government institutions.

The arithmetic mean for the entire range of "Reasons for the Transition to E-administration" was 3,37, indicating a moderate score. Therefore, it is evident that the two strongest reasons for the transition to e-administration, according to the employees, are the ones mentioned in items 1 and 2.

4.3.3 Axis of Requirements for the Success of the E-administration Project:

Results of answering the third question: What are the requirements for the success of the e-administration project?

Table 5: Responses of the sample individuals to the items of the requirements for the success of the e-administration project

N	Statement	Arithemeticmean	Standard deviation	Acceptance Score	Rank
1	The institution has a clear vision for the implementation of the E-administration project	3,32	0,94	Medium	2
2	Encouraging employees by senior administration to implement the e-administration project	3,30	1,00	Medium	3
3	The institution has qualified human cadres proficient in using information technology.	3,57	0,90	High	1
4	The existence a special department tasked with providing technical and technological support to employees in the field of providing electronic services	2,89	1,10	Medium	4
5	The existence of annual financial allocations in order to ensure the development and protection of the information system	2,70	1,08	Medium	5
	Requirements for the success of the e-administration project	3,16	1,00	Medium	/

Source: Prepared by the researchers relying on the outputs of the SPSS program

The table above shows that the arithmetic means for the scale's statements

ranged between 3,57 and 2,7; Item 03 ranked first with a high score, with an arithmetic mean of 3,57 and a standard deviation of 0,90. 43,2% of the sample members agreed that the institution has qualified human cadres proficient in using information technology. Items 01, 02, 04, and 05 followed in successive ranks with moderate scores, where the responses of the sample members to these items were neutral.

The arithmetic mean for the entire range of "Requirements for the Success of the E-Administration Project" was 3,16; indicating a moderate (neutral) score. Therefore, it is evident that the most prominent requirements for the success of the e-government project are those mentioned in item 03.

4. RESULTS AND DISCUSSION:

4.1 Results Related to Answering the Sub-Hypotheses:

Sub-hypothesis: There are no statistically significant differences at the significance level ($α≤0.05$) for the challenges of modernization and reform of public administration and the requirements of transition to e-administration according to the variable of mastering the use of communication and computer technologies.

Table 06: ONE WAY ANOVA variance analysis results to test differences

Variable	mean square	F value	Sig
Challenges of reforming and modernizing public administration	1,453 0,752	1,933	0.16
Requirements for the transition towards e-administration	0,788 0,528	1,493	0,24

Source: Prepared by the researchers relying on the outputs of the SPSS program

It is evident from the table above and through the Sig values for the variables that they are greater than the significance level of 0.05 in both cases. This confirms the validity of the first sub-hypothesis, meaning that there are no statistically significant differences at the significance level ($α≤0.05$) for the challenges of reforming and modernizing public administration and the requirements of transitioning to e-administration attributed to the variable of mastering the use of communication and computer technologies. This explains what appeared in the respondents' answers, where 56,8% of them had an average level of mastering the use of communication and computer technologies, which contributes to the

challenges of reforming the Tax Directorate of the Province of Tamanghasset and its transition to e-administration.

4.2 Results Related to Answering the Main Hypothesis:

The main hypothesis states that: "There is a clear impact of adopting the E-administration project on the modernization and reform of public administration in the Tax Directorate of the Province of Tamanghasset."

We will test the main hypothesis through simple linear regression analysis with two variables (dependent variable: modernizing and reforming of public administration, and independent variable: transformation towards e-administration), we will accept the hypothesis if the significance level is less than or equal to 0,05.

Table 7: analysis of the results of the simple linear regression test

/	Transition towards e-administration				
Reforming and modernizing public administration	Correlation coefficient **R**	Coefficient of determination **R2**	Coefficient of regression	**F** value	Significanc elevel
	0.82	0.67	0.870	72,25	0,0001

Source: Prepared by the researchers relying on the outputs of the SPSS program
Independent variable: transition towards E-administration.

Dependent variable: modernizing and reforming public administration.

From the table above, we observe that the correlation coefficient value (R) is 0,82 indicating a perfect positive correlation between the variables with a percentage of 82%. The coefficient of determination (R2) is 0,67 revealing that 67% of the variance (changes) in the dependent variable (modernizing and reforming public administration) is attributed to the independent variable (transition towards E-administration), and this percentage is statistically significant. The remaining 33% is attributed to other variables that did not enter the study model. Additionally, the table confirms that the computed F-value for the significance of the effect is highly significant, registering a value of (F = 72,25) at a significance level of 0,0001, which is less than 0,05 (5%). This significance indicates the validity of the main hypothesis, providing further evidence of the relationship between the independent variable (transition to E-administration) and the dependent variable (modernizing and reforming public administration). Consequently, we can predict the dependent variable based on the independent variable.

Therefore, we can say that the independent variable, the transition towards E-administration, has a substantial impact on the modernization and reform of public administration. Therefore, we can formulate a simple linear regression model equation that allows predicting the movement of the dependent variable in favor of the independent variable as follows:

Y=0,386+0,870X   Where:

Y: Modernization and reform of public administration,

X: Transition to e-administration.

Thus, an increase represented by a one-unit shift toward the E-administration project allows an advancement in the modernization and reform of public administration by a value of 1,256 units.

5. CONCLUSION

Through this research paper, it becomes evident that the process of modernizing and reforming public administration is a necessary process to keep up with the technical and technological advancements witnessed globally. Moreover, this process aims to promote public administration to a level that meets the expectations of both citizens and employees alike. This is achieved through eliminating bureaucratic behavior in the administration, along with adopting the e-administration project, with the aim of reducing administrative procedures, saving time, enhancing the performance of employees, and providing public services characterized by quality and efficiency. Despite the difficulties and obstacles facing the implementation of this project in reality, we find that the state is committed to adopting the e-administration project, realizing its importance, and acknowledging its positive impact on the modernization and reform of its utilities.

The study reached the following results:

-The incompetence of employees in the field of mastering the use of communication and computer technologies contributes to increasing the challenges of reforming and modernizing the Tax Directorate of the Province of Tamanghasset, which makes the transition to E-administration more difficult.

-There is a clear impact of adopting the e-administration project on modernizing and reforming public administration at a significance level (α≤0.05), with a determination coefficient of 0,67 explaining 67% of the studied phenomenon.

Recommendations: There is a dire need to:

-Expand the distribution of communication infrastructure to all parts of the province.

-Train employees to use communication technologies effectively.

-Raise awareness among citizens about the importance of engaging in the e-administration project in order for it to succeed.

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