



Vol. 05 No. 04. (2023).

P. 213-230

The effect of digitalizing the services on the improvement of the public service of the public administration –Empirical study in the Directorate of Organization and Public Affairs of the Wilaya of Ouergla during 2013-2022

Attab Keltoum^{*(1)}

Ben Chaa Halima⁽²⁾

Attab-keltoum@univ-eloued.dz

Halimaben2016@gmail.com

University Of EL oued , Algeria

University Of Ouargla, Algeria

Arar Moufida⁽³⁾

Arar.moufida@univ-ouargla.dz

University Of Ouargla, Algeria

Received:29/09/2023

Accepted :27/12/2023

Abstract

The study aims to track the reality of public service in local units by analyzing the Authority's reform attempts to bring the administration closer to the citizen and enable him to participate in the service. The Directorate of Organization and Public Affairs of wilaya of Ouragla was picked as an example of decentralized practice in local administrative management during 2013 and 2022, how have the administrative changes benefitted Algeria's public service in general and the aforementioned Directorate in particular?

Using a sample of 350 employees, an four -axis questionnaire, a descriptive, analytical, and statistical approach, as well as the use of the Ch2 test .

^{*}Corresponding author:

the study's main premise, and assuming that the government's modernization efforts will be successful. The researcher came to the conclusion that there was a statistically significant relationship between the improvement of the public service offered on the one hand and the reform and modernization of the procedures and mechanisms applied by the Directorate of Organization and Public Affairs of Ouargla State on the other. Additionally, there is a statistically significant association between the use of current procedures and the large percentage of people seeking public assistance. The researcher also came to the conclusion that there was no statistically significant relationship between the improvement of the public service, the high number of people requesting public services, and the reform of administrative procedures, and the contribution of e-administration to these factors.

Keyword.: public service – digitization-local administration –optimization- reform.

1. INTRODUCTION

The last decade of the 20th century witnessed a high increase in the official jobs that aim at the growth and improvement of the public services, including the health and education, and the achievement of the aims of the 3rd millennium¹. In this regard, many reforms were launched at the level of the structures and regulations that govern the relation between the citizen and the administration, such as the Electronic Algeria 2013, the Administrative and Financial Reform of the Local administration 2015-2016, and other projects that directly target the public services. However, these development actions were variant in reality and neither met the expectations of the political authorities nor amounted up to the material and human potentials used.

Based on what has been said, we raise the following problematic, “how did the digitalization efforts at the Directorate of Organization and Public Affairs in the Wilaya of Ouargla contribute to improving the public service during 2013-2022?” From this question, sub-questions arise as follows:

1. What are the measures taken by the public authorities in digitalizing the public service?
2. How did the reforms of the local administration affect the public service?
3. To what extent are the reforms locally implemented?

In order to answer these questions, we hypothesize that, “the digitalization efforts in the Directorate of Organization and Public Affairs in the Wilaya of Ouargla positively contribute to improving the public service regarding time, size of services, and number of beneficiaries” From this hypothesis, sub-hypotheses arise as follows:

1. There is a direct relation between the applied measures and the increase of the public service seekers.

¹ Supreme UN Delegation for the Human Rights, the world we want, UN growth program 2013, URL, <https://www.ohchr.org/AR/Issues/MDG/Pages/Intro.aspx> accessed on 28/03/2019.

2. It is not possible to link the reform of the administration and the digitalization of the mechanisms as indexes of improving the public service.
3. The professional qualification level increases the level of the service.

II. The conceptual frame:

First: the public service:

1. Definition of the public service:

Many researchers tackled this concept in order to set a comprehensive definition. In this context, the French administrative law sees that it is traditionally a technical service through an organization as a response to a public need. It adds that its provision requires respecting the principles of equality, continuity, and adaptation to achieve the public interest². In addition, Pierre Bauby defines it as the fruit of time, space, and the challenges facing the society³. Moreover, Kotler believes it is any activity or performance subject to the intangible exchange that does not transfer property and can be related to a material outcome⁴. Furthermore, Daniel Chavez states that it is the necessary needs to maintain the human life and ensure its well-being. He adds that it is the main engine for any policy to lift up to the level of the citizen⁵.

Based on these definition, we can say that the public service is a set of activities provided by the state or the official authorities to the citizens without any discrimination. It is based on the achievement of the public interest for all the citizens because the need that urges it is related to the whole population, not to a specific class. Besides, the state bears the responsibility of any deficit in providing the service.

2. Types of the public service:

It includes a big inharmonious set of organized collective services by the state as follows⁶:

2.1 Regarding the nature of the service:

- **The administrative services:** They are the services provided by the public administration or the administrative public facilities at the local or decentralized level, such as the civil status facilities.
- **Industrial and commercial services:** They include the services that the commercial and industrial public institutions provide, such as the Water Company and the Electricity and Gas Company.
- **Cultural and social services:** They are the services provided by the public institutions of the social and cultural nature, such as the compulsory education and the healthcare services.

²Merizeq Adman, **the public management between the classical and modern trends**, Vol. 01, al Mohamadia, Algiers, Jossour for publication and distribution, 2015, p. 14.

³ Pierre Bauby, *Service Public et Services Publics*, La documentation Française, Paris 2^{ème} édition, 2016, P11.

⁴Rachida Htatach, **the quality of the public service in the light of the smart electronic government**, economic visions journal, University of Hama Lakhder of el Ouedi, Algeria, No° 12, 2017, p. 453.

⁵Faiza Majdoub & Miloud Tich, **the role of the electronic government in rationalizing the public service: reading in the concept and the application mechanisms**, University of Setif, the issue of the 1st international congress entitled "the institution between the public service and the management of the human resources" on 17-18 November 2015, p. 428.

⁶Noureddine Chenoufi, **courses in public management**, the economic researcher gate (ERG), October 2018, p. 3.

2.2 Regarding the nature of the provided services:

- **Individual services:** They are the services the citizen gets without being in a group. In this line, he asks for their provision or works to get them.
- **Collective services:** They are the services the individual gets within a group without asking for, such as the street lighting.

2.3 Regarding the nature of the consumption⁷:

- **Services with compulsory consumption:** such as education.
- **Services with optional consumption:** such as railroad transportation.

2.4 Regarding the cost of the service⁸:

- **Free service:** It requires no costs because the government pays for it, such as vaccination campaigns, public security, and street lighting.
- **Paid services:** The benefiter pays the costs, such as the electricity, phone, and drinkable water bills.
- **Subsidized services:** The benefiter pays a part of the services while the rest is paid by the state, such as the public transportation and the social housing.

2.5 The local public services: This includes civil status services, electronic office, water and electricity, and sanitation services⁹.

Second: the electronic public service:

The related concepts include the electronic government services, the electronic service, the public electronic service, and the digital service. In order to understand the electronic services in the public sector, we must divide the concept of the public electronic service into three dimensions, namely: services, electronic, and public¹⁰.

1. The nature of the public electronic service:

The expression “public service” denotes a service that is electronically provided. The word service is derived from the Latin “Servitium” which means slavery. Nevertheless, today, the word service implies the action of providing the action of help, or a system that provides a public need¹¹. In this regard, Rowley defines the electronic service as any efforts, actions, or offers through information technology (including the web and mobile devices). He adds that it includes elements of the electronics, customer support, and service provision¹². In addition, De Reuter sees that it is an interactive customer service that revolves around the content and is based on the internet. He adds

⁷ Ibid, p. 60.

⁸ The People’s Democratic Republic of Algeria, constitutional amendment of 2016 on the amendment of the Constitution of 1996, 06 March 2016, official gazette 14 of 07/03/2016, Article 53, paragraph 3.

⁹NoureddineHarouche et al., **the local public service as an index of the sustainable development**, the Nation House for publication and distribution, Algeria, 2017, p. 29.

¹⁰Ida Lindgren and Gabriella Jansson, Electronic services in the public sector: A conceptual framework, 2013, Government Information Quarterly, (30), 2, 163.

<http://dx.doi.org/10.1016/j.giq.2012.10.005>

¹¹ Op. cit, p. 164.

¹² Op. cit., p. 166.

that it is led by the customer and is complementary with the organizational actions and techniques of supporting the customers that aim at strengthening relations¹³. This narrow definition confirms that the electronic service needs internet and the interactivity. Besides, it is based on the customers and is complementary with the related actions and techniques inside the institutions.

2. The characteristics of the electronic public services:

The main characteristics of the service that has important effects on the understanding of the public electronic services are¹⁴:

- The service can be understood as a process where a specific person is presented and a value is established for the user. In addition, the service quality is assessed based on the value that has been established for the consumer. Thus, there is an in equivalent relation between the user and the provider.
- The electronic service takes place through the information technology. This includes the authorities that design and provide the technology, and the users of the office systems who take advantage of the systems in their works.
- The meaning of the electronic service differs than its parts: The electronic service is not merely a service through an electronic media because an attitude emerges from the technical aspect of the electronic service and needs understanding the media of the service and interacting with the technical system that provides the service.
- The electronic services have common characteristics with the goods and services. Thus, they are between the goods and services. Besides, the common denominators with the goods include the fact that assessing the quality of the electronic service is less related to the experience of the user and his perception of the electronic service.
- The electronic service is simply provided by an institution of the public service.

3. The challenges facing the electronic services¹⁵:

- Despite that the rates of using the services provided via internet have significantly increased, they did not meet the expectations because there is still a way for the adoption of the internet services, taking into consideration that the use is a main factor in yielding the gains of the investments.
- The issues of the structural access may hinder the use of the public services because the access to internet in the 20th century has become widespread. In this line, it provides many social and financial benefits for the individuals and societies.
- We can reduce the obstacles that hinder the public service through increasing internet communications and improving the skills in this field.
- The administration must seriously consider the digital gap.

¹³ Op. cit., p. 168.

¹⁴ Op. cit., p. 171.

¹⁵ [Barbara Ubaldi](#), L'administration électronique, support de l'innovation dans les services publics, dans [Revue française d'administration publique](#) 2013/2 (N° 146), pages 449 à 464. disponible sur URL : https://www.researchgate.net/publication/257244390_Electronic_services_in_the_public_sector_A_conceptual_framework,date de visite 06/02/2020 at 22 :30 GMT

III. The development of the public administrative services in the Directorate of Organization and Public Affairs (2013-2022):

In this context, the public administrative services during 01 January 2013 and 31 December 2022 were as follows

Table 01: the development of the administrative public services in the Directorate during 2013-2022

Service	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Licenses of the ranked institutions	99	112	103	100	85	99	58	05	03	110
Licenses of the organized activities	37	33	51	46	31	30	25	18	32	45
Elections organization	-	1	1	2	-	-	1	-	-	-
Associations declarations	103	0	0	0	12	417	22	26	39	102
Cars cards	1135	1250	998	1005	1230	1109	156	201	198	1950
Control card	233	200	254	290	308	312	99	89	204	526
Driving license (ordinary/biometric)	2204	2065	8302	15245	17056	12030	1000	800	1034	2230
Passports (ordinary/biometric)	25000	11800	13327	14640	16560	1500	100	230	230	7400
ID (ordinary/biometric)	18540	23840	22800	18750	19000	18795	18756	10254	10289	21540
Pilgrimage books	3400	3400	3400	3650	3650	3650	00	00	00	3700
Foreigners residency cards	200	209	350	298	277	224	103	280	906	1043
Foreigners marriage licenses	12	34	53	23	52	24	00	29	32	44

Source: made by the authors based on the records of the Directorate during 2013-2022

Table 01 shows that the Directorate is in charge of providing administrative services that the state cannot delegate because they include sovereign documents and the civil statuses that the individuals cannot make. In this context, only the pilgrimage is delegated to the tourism agencies under the supervision of the state and its agents¹⁶. Besides, we notice a consistency in the statics of the ID because of the regular number of the ID applicants who shall sit for the middle school final exam and the Baccalaureate exam. The same applies to the services of the pilgrimage because they are subject to a centralized management that exceeds the prerogatives of the Directorate. Besides, we notice an absence of the rates of elections organization since 2020 because the task was delegated to the Independent Committee of Elections.

VI. The statistical methods to treat data:

To examine the nature of this development, we administered a questionnaire to the Directorate to know the development efforts and their contribution to the improvement of the provided services.

¹⁶BoutsounaTahar, the Director of organization and public affairs in the Wilaya of Ouergla, interview on 15/04/2019 at 09:15 a.m. at the Directorate of Organization and Public Affairs in the Wilaya of Ouergla.

1. Methodology of the study:

We used Chi-square tests of independence as it suits the analysis of the study and its hypotheses. We can apply the test on all the data collected by the author with all the methods (as questionnaires). In this line, the relation between the two study variables shall be focused on. Besides, we choose the level of significance, which represents the probability of errors in the tests and obliges us to refuse the null hypothesis H_0 even though it is correct. This means that the author shall wrongly deduce from the data that there is a relation between the two variables, while in fact there is no relation¹⁷.

2. Population of the study:

It is the Directorate of Organization and Public Affairs in Algeria. It was established by the Executive Decree 95-265 of 06 September 1995 that identifies the rules of organizing and managing the departments of the public affairs and the local administration. It is in charge of¹⁸:

- Guaranteeing the application of the public legal rules according to organizational decrees and laws.
- Guaranteeing the control of the legitimacy of the local applicable organizational measures.
- Guaranteeing the provision of the reports and studying the administrative works of the Wilayas and their municipalities.
- Providing the Dairas and municipalities of the Wilaya with all the official documents.
- Organizing the elections in collaboration with the competent bodies and administratively managing the municipal and Wilaya electors.
- Applying the rules of people transportation.
- Reporting the Wilaya administrative decisions.

3. Validity and consistency of the study tool:

To check this, we relied on:

3.1 The reviewers' validity:

To make sure of the clarity and suitability of the items of the questionnaire, we showed it to a group of specialized university teachers who have provided comments and made suggestions.

3.2 The consistency of the questionnaire:

We examined the consistency using Cronbach's Alpha whose value is acceptable at 0.62. Table 02 shows the results of the test:

¹⁷ The educational academy, Chi square test of independence, available at: educade.me.

¹⁸ See the executive Decree 95-265 of 6 September 1995 on the rules of organizing and managing the departments of the public affairs and the local administration.

Table 02: Consistencycoefficient using Cronbach’s Alpha

Number of items	Cronbach’s Alpha coefficient
51	0.763

Source: Prepared by the authors based on the outputs of SPSS23

Table 02 shows that Cronbach’s Alpha coefficient is 0.763. This means that 76.3% of the informants will be consistent in their answers if they are asked the same question again. This shows the consistency of the questionnaire. In addition, the results have a high level of trustworthiness and consistency and mean that there is a high stability in the findings of the questionnaire. Moreover, they are very logical and accepted results.

3.3 Sample of the study:

The statistical information include:

a- The statistical description of the study sample:

The statistics included 350 employees in charge of providing services at the Directorate. Table 03 shows their information:

Table 03: the distribution of the human resources in the Directorate of Organization and Public Affairs

Number of employees	High position	Common branches	Professional or contractual employees	Professional integration or contract employees	Total
	11	294	30	15	350
Educational level	Middle	Secondary	University		
	80	200	70		350
Distribution of employees	Secretariat of the director	Public organization department	Transportation of people department	Legal issues and disputes department	
	5	134	125	91	350

Source: made by the authors based on the information provided by the Director of Organization and Public Affairs in the Wilaya of Ouergla

Table 03 shows that the human resource is various according to the formulations available by the government in the field of recruitment. In this line, there are 11 high position employees and 294 in the common branches who directly provide the public services. Besides, there are 30 contractual employees in charge of cleaning, security, and transportation of the letters and files between the departments and outside the Directorate (janitors, factotums, drivers, cleaners, security agents, etc). Besides, the educational level is mostly made up of employees with secondary level education, as they make up 200 employees out of 350. This is in fact a decent level and hinders understanding the essence of the public service. In addition, the distribution of the employees on the departments is acceptable because the public organization department bears the biggest burden in providing the public services; knowing that this distribution has not been studied and is not subject to the specialty or competency.

b. The study tool:

The axes of the questionnaire were built according to the important variables in the process of digitalization.

V. Results and discussion:

1. Study of the variables of the questionnaire axes:

Axis 01: The personal information:

Most of the employees, 54.3%, are males. In addition, most of them work in the offices of the civil status. Besides, the gender does not affect the quality of the service as shown by T-Test. In this line, the results show that the value of the test is 0.10 at degree of freedom 348. This is statistically insignificant because the statistical significance is higher than the significance level 0.05. Therefore, there are no statistically significant differences regarding the quality of the public service by the gender. We notice a big convergence in the mean of the quality of the public service between the males and females.

Furthermore, the biggest age class was between 30 and 40 with 38.3% because most of the recruitment actions were during 2007 and 2016. In addition, the level of the professional experience is high because 113 employees, 32.3%, have 10 to 20 years of experience. This rises the professional level in handling the administrative issues related to providing the public service and reduces the functional struggle and professional issues. Nevertheless, this cannot be generalized on the whole Directorate.

Axis 02: The qualification of the human resource:

Most of the employees, 89.7%, are aware about the importance of providing the public services to the citizens thanks to their awareness about the professional and societal responsibilities of the public services. On the other hand, only 10.3% see that the job of providing public services is important due to the variance of the causes of joining the job. In this regard, we noticed that most of the employees see that the choice of this job achieved a social and psychological satisfaction because they feel happy about providing the service. In addition, the societal satisfaction they feel is thanks to the esteem they get from the society classes.

Based on these results, the answers are convergent. In addition, 207 employees do not get bored of the recurrent services thanks to psychological, professional, and ethical considerations. On the other side, 143 feel bored of the recurrent demands on the services due to the same previous considerations. Moreover, the answers are convergent regarding the existence of an administrative model. 57.7% believe in the existence of an administrative model thanks to the good and professional transactions with their bosses and colleagues. On the other hand, 42.3% do not believe in this for the same considerations. The results show that 105 of the employees who believe in the existence of an administrative model are influenced by the professional and personal features of the model; this is an objective and logical deduction.

Axis 03: The digitalization of the Directorate of Organization and Public Affairs:

The answers of the informants about the used tools in the administrative work show that 45.5% use the computer. Besides, 27.9% use the fax for the actions of reporting and monitoring

between the Directorate, the Ministry, other directorates, and the other Wilaya departments. Finally, 26.4% use the internet because its use is available to the Department of the Foreigners Movement, the Department of Organization, and the departments' heads. Moreover, most of the applications use in the Directorate is for inputting information, such as the management of the databases and the automatic treatment of the files.

Furthermore, 60.8% of the informants use the extranets in providing services and 41 employees use them in holding online meetings, mainly in times of elections. In this context, the Ministry of Internal Affairs and Local Communities makes sure to hold these meetings to monitor the coordination between the various Wilayas in organizing the electoral lists. Besides, the meetings are held to organize the pilgrimage. On the other hand, few Wilayas use the extranets to communicate with the citizens. 221 employees, 63.1%, declared the necessity of the pre-training on the modern applications as they are complicated. Besides, 216 employees, 63.7%, see it is not necessary to take the pre-training because mastering the applications is easy. Furthermore, 137 see it is necessary to remake the training on the modern applications whenever it is needed, or when the boss sees there are difficulties in dealing with the applications. On the other hand, 213 see the opposite and that it is not necessary. Moreover, 120 employees, 87.6%, declared that the training they receive is enough and beneficial, while 17 believe the opposite due to the short period of the training, the low-quality program, and low level of the trainers.

Axis 04: The electronic government and the electronic governance:

194 employees, 55.4%, say that it is easy to use the public service applications while 156 of them, 44.6%, see that the applications are not easy to use by the ordinary citizens. Besides, 248 see that it is necessary for the citizens to receive training on using the electronic service to facilitate the administrative procedures. On the other hand, 102 think that this is illogical and impossible and that the political authority must think about facilitating the programs and applications. Besides, 187 say that the programs in service are beneficial and enough because they facilitate the public services in the Directorate, while 163 see the opposite due to the many daily needs they receive and criticisms. In addition, 190 employees declared facing obstacles in providing the public service electronically despite that the electronic administration aims at facilitating and simplifying the administrative work. On the other side, 207 of them see that the costs of the electronic public services are high and cannot be afforded by everyone, mainly regarding the costs of the civil status documents and the biometric driving licenses.

2. Study and analysis of the study hypotheses:

2.1 The main hypothesis:

First: The correlation coefficient:

We used Cronbach's Alpha to test this hypothesis. Table 04 shows the results:

Table 04: The results of the relation between digitalizing the mechanisms and measures applied in the Directorate of Organization and Public Affairs in the Wilaya of Ouargla and the improvement of the public service

	Improvement of the public service	
Modernization of the measures and mechanisms	Correlation coefficient	Statistical significance
	0.519	0.000

Source: Prepared by the authors based on the outputs of SPSS23

Table 04 shows that the statistical significance is less the significance level 0.05. Therefore, there is a statistical significance between reforming and modernizing the measures and mechanisms applied in the Directorate of Organization and Public Affairs in the Wilaya of Ouargla and the improvement of the public service. Besides, the value of the correlation coefficient is 0.519. This is an average direct correlation that means that the increase of the reforms and modernization improves the public service. Thus, the main hypothesis is confirmed.

Second: Discussion of the results of the main hypothesis:

The correlation between the variables of the improvement in the Directorate of Organization and Public Affairs in the Wilaya of Ouargla and the improvement of the public service includes the following:

Table 05: the distribution of the answers of the informants about the adoption of the technological tools by the Directorate and the increase of the level of the public service

The adoption of the technological tools by the Directorate		Increasing the level of the public service		Total
		Agree	Disagree	
Yes	Frequency	246	49	295
	Percentage	88.5	68.1	84.3
No	Frequency	32	23	55
	Percentage	11.5	31.9	15.7
Total	Frequency	278	72	350
	Percentage	100.0	100.0	100.0
Value of Chi-square test		18.028		
Statistical significance		0.000		

Source: Prepared by the authors based on the outputs of SPSS23

The table shows that the value of Chi-square is 18.028 with a statistical significance that is less than 0.05. This means the existence of a statistical relation between the adoption of the technological tools by the Directorate and the increase of the level of the public service. In this line, we see that 88.5% of those who believe in increasing the level of the public service confirm that the Directorate relies on the technological tools.

Table 06: the distribution of the answers of the informants about the adoption of the technological tools by the Directorate and the easiness of getting the public service

The adoption of the technological tools by the Directorate		The easiness of getting the public service		Total
		Yes	No	
Yes	Frequency	248	47	295
	Percentage	88.3	68.1	84.3
No	Frequency	33	22	55
	Percentage	11.7	31.9	15.7
Total	Frequency	281	69	350
	Percentage	100.0	100.0	100.0
Value of Chi-square test		16.966		
Statistical significance		0.000		

Source: Prepared by the authors based on the outputs of SPSS23

The table shows that the value of Chi-square is 16.96 with a statistical significance that is less than 0.05. This means the existence of a statistical relation between the adoption of the technological tools by the Directorate and the easiness of getting the public service. In this line, we see that 88.3% of those who believe in easiness of getting the public service confirm that the Directorate relies on the technological tools. Therefore, there is a relation between the modern techniques, the approach of the administration to the citizen, and the promotion of the public service thanks to the communication between the public institutions and the citizens.

Table 7: the distribution of the answers of the informants about the adoption of the technological tools by the Directorate and the effect of the electronic problems on the public service

The adoption of the technological tools by the Directorate		The effect of the electronic problems on the public service			Total
		Big	Average	Weak	
Yes	Frequency	144	140	11	295
	Percentage	94.7	80.0	47.8	84.3
No	Frequency	8	35	12	55
	Percentage	5.3	20.0	52.2	15.7
Total	Frequency	152	175	23	350
	Percentage	100.0	100.0	100.0	100.0
Value of Chi-square test		38.045			
Statistical significance		0.000			

Source: Prepared by the authors based on the outputs of SPSS23

The table shows that the value of Chi-square is 38.045 with a statistical significance that is less than 0.05. This means the existence of a statistical relation between the adoption of the technological tools by the Directorate and the effect of the electronic problems on the public service. In this line, we see that 94.7% of those who believe in the big effect of the electronic problems on the public service confirm that the Directorate relies on the technological tools. Here, we see that there are

many technical issues related to the problems coming from the low-quality programs and the old devices that date back to the 1980s. In addition, we can attribute these problems to the non-training of the employees and the absence of the technical support that provides maintenance to the devices.

Table 08: the distribution of the answers of the informants about the use of the internet in the Directorate and the increase of the level of the public service

the use of the internet in the Directorate		Increasing the level of the public service		Total
		Agree	Disagree	
Yes	Frequency	185	35	220
	Percentage	66.5	48.6	62.9
No	Frequency	93	37	130
	Percentage	33.5	51.4	37.1
Total	Frequency	278	72	350
	Percentage	100.0	100.0	100.0
Value of Chi-square test		7.880		
Statistical significance		0.000		

Source: Prepared by the authors based on the outputs of SPSS23

The table shows that the value of Chi-square is 7.88 with a statistical significance that is less than 0.05. This means the existence of a statistical relation between the use of the internet in the Directorate and the increase of the level of the public service. In this line, we see that 66.5% of those who believe in increasing the level of the public service confirm the use of the internet in the Directorate.

Table 09: the distribution of the answers of the informants about the use of the internet in the Directorate and the easiness of getting the public service

the use of the internet in the Directorate		The easiness of getting the public service		Total
		Yes	No	
Yes	Frequency	184	36	220
	Percentage	65.5	52.2	62.9
No	Frequency	97	33	130
	Percentage	34.5	47.8	37.1
Total	Frequency	281	69	350
	Percentage	100.0	100.0	100.0
Value of Chi-square test		4.201		
Statistical significance		0.000		

Source: Prepared by the authors based on the outputs of SPSS23

The table shows that the value of Chi-square is 4.201 with a statistical significance that is less than 0.05. This means the existence of a statistical relation between the use of the internet in the Directorate and the easiness of getting the public service. In this line, we see that 65.5% of those who believe the easiness of getting the public service confirm that the use of the internet in the

Directorate. Consequently, the modern administration is characterized with the optimal use of the internet that facilitates the work and reduces the administrative burdens on the citizens and employees.

Table 10: the distribution of the answers of the informants about the use of the internet in the Directorate the effect of the electronic problems on the public service

The use of the internet in the Directorate		The effect of the electronic problems on the public service			Total
		Big	Average	Weak	
Yes	Frequency	103	114	03	220
	Percentage	67.8	65.1	13.0	62.9
No	Frequency	49	61	20	130
	Percentage	32.2	34.9	87.0	37.1
Total	Frequency	152	175	23	350
	Percentage	100.0	100.0	100.0	100.0
Value of Chi-square test		26.404			
Statistical significance		0.000			

Source: Prepared by the authors based on the outputs of SPSS23

The table shows that the value of Chi-square is 26.404 with a statistical significance that is less than 0.05. This means the existence of a statistical relation between the use of the internet in the Directorate and the effect of the electronic problems on the public service. In this line, we see that 67.8% of those who believe in the big effect of the electronic problems on the public service confirm the use of the internet in the Directorate. Thus, there is a big effect for the technical errors on the good functioning of the public service. This shall hinder the good performance of the employees and negatively affect the citizens' satisfaction.

Table 11: the distribution of the answers of the informants about the use of the extranet in the Directorate the effect of the electronic problems on the public service

The use of the extranet in the Directorate		The effect of the electronic problems on the public service			Total
		Big	Average	Weak	
Yes	Frequency	64	80	4	148
	Percentage	42.1	45.7	17.4	42.3
No	Frequency	88	95	19	202
	Percentage	57.9	54.3	82.6	57.7
Total	Frequency	152	175	23	350
	Percentage	100.0	100.0	100.0	100.0
Value of Chi-square test		6.686			
Statistical significance		0.000			

Source: Prepared by the authors based on the outputs of SPSS23

The table shows that the value of Chi-square is 6.686 with a statistical significance that is less than 0.05. This means the existence of a statistical relation between the use of the extranet in the Directorate and the effect of the electronic problems on the public service. In this line, we see that

57.9% of those who believe in the big effect of the electronic problems on the public service confirm not using the extranet in the Directorate.

Table 12: the distribution of the answers of the informants about the pre-training on the modern applications and the effect of the electronic problems on the public service

The pre-training on the modern applications		The effect of the electronic problems on the public service			Total
		Big	Average	Weak	
Yes	Frequency	102	113	6	221
	Percentage	67.1	64.6	26.1	63.1
No	Frequency	50	62	17	129
	Percentage	32.9	35.4	73.9	36.9
Total	Frequency	152	175	23	350
	Percentage	100.0	100.0	100.0	100.0
Value of Chi-square test		14.749			
Statistical significance		0.000			

Source: Prepared by the authors based on the outputs of SPSS23

The table shows that the value of Chi-square is 14.749 with a statistical significance that is less than 0.05. This means the existence of a statistical relation between the pre-training on the modern applications and the effect of the electronic problems on the public service. In this line, we see that 67.1% of those who believe in the big effect of the electronic problems on the public service confirm the existence of pre-training on the modern applications. Thus, we conclude that there is an issue in the professional skill of the human resource in the Directorate due to the absence of training inside the Directorate on how to perform the tasks of the electronic administration.

Table 13: the distribution of the answers of the informants about the retraining when adopting new applications and the effect of the electronic problems on the public service

Retraining when adopting new applications		The effect of the electronic problems on the public service			Total
		Big	Average	Weak	
Yes	Frequency	42	89	6	137
	Percentage	27.6	50.9	26.1	39.1
No	Frequency	110	86	17	213
	Percentage	72.4	49.1	73.9	60.9
Total	Frequency	152	175	23	350
	Percentage	100.0	100.0	100.0	100.0
Value of Chi-square test		20.182			
Statistical significance		0.000			

Source: Prepared by the authors based on the outputs of SPSS23

The table shows that the value of Chi-square is 20.182 with a statistical significance that is less than 0.05. This means the existence of a statistical relation between retraining when adopting new

applications and the effect of the electronic problems on the public service. In this line, we see that 72.4% of those who believe in the big effect of the electronic problems on the public service confirm the absence of retraining when adopting new applications. Consequently, we infer that the employees were not retrained and qualified in dealing with the methods of the modern public administration and the new techniques to cope with any new point. Finally, we confirm that the efforts of the government in digitalizing the local administration positively affect the level of the public service regarding the time and size of the services and the benefiterers.

2.2 Study and analysis of the study hypotheses:

The 1st sub-hypothesis:

Based on testing the variables of the modern measures and the increase of the public service seekers, we notice that the value of Chi-square is 22.815 with a statistical significance less than 0.05. This means the existence of a statistical significant relation between the satisfaction with the use of the modern technology in the work and the easiness of using the public service applications. In this regard, 84.4% of the informants confirm total satisfaction with the use of modern technology and the easiness of using the applications of the public service. In addition, analysis shows a positive statistical relation between the modern measures adopted in the Directorate of Organization and Public Affairs and the increase of the number of the service seekers. Hence, we confirm the 1st sub-hypothesis.

The 2nd sub-hypothesis:

Based on testing the variables of the administrative reform and the digitalization of the mechanisms as indexes of the improvement of the service, the value of Chi-square test is 129.345 with a statistical significance less than 0.05. This means the existence of statistically significant relation between the administrative reforms and the full satisfaction with the use of the modern technologies in the work. In this line, 31.3% of those who declare the full satisfaction with the use of the modern technology in the work confirm that the administrative reforms of the public service are successful. In addition, the results show a statically significant relation between the rate of the reform of the administrative measures and the digitalization of the mechanisms as two indexes of improving the public service. As a result, we refuse the 2nd sub-hypothesis.

The 3rd sub-hypothesis:

Based on testing the data related to the public service provider and his role in increasing the level of the public service, the value of Chi-square test is 4.159 with a statistical significance less than 0.05. This means the existence of statistically significant relation between providing answers to the questions of the citizens and the simplification of the administrative procedures to get the services. In this line, 67.3% of those who declare the simplification of the administrative procedures to get the services confirm providing answers to the questions of the citizens. Moreover, the study of the variables of the 05th sub-hypothesis shows a direct statistical relation between the contribution of the service provider in the Directorate of Organization and Public Affairs in the Wilaya of Ouargla in increasing the level of the service. Therefore, we confirm the hypothesis.

IV. Conclusion:

Upon this study, we found out that the digitalization of the public service in Algeria needs urgent successful measures that include adaptation and modernization through the flexibility in the transactions and the rationalization in the management. This is what we did not find in the Directorate of Organization and Public Affairs in the Wilaya of Ouargla. Consequently, we provide the following suggestions:

- It is necessary to give the civil society a direct role in preparing, executing, and assessing the administrative simplification program.
- It is necessary to separate the secrecy, the professional secret, and the transparency because the secrecy of the procedures the citizen takes advantage of is confused with concealing the laws and measures before and during providing the service. The 1st preserves the privacy of the citizens while the 2nd hinders them.
- The official work time in the Algerian public administrations is inappropriate. Therefore, it needs to be rethought and rationalized because we cannot speak about the welfare as a principle of the public service and ignore the right of the service provider to this principle.

5. Bibliography List :

1. Books :

- Merizeq Adman, 2015, the public management between the classical and modern trends, Vol. 01, al Mohamadia, Jossour for publication and distribution, Algiers.
- Pierre Bauby, 2016, Service Public et Services Publics, La documentation Française, Paris 2^{ème} édition, France.
- Nouredine Harouche., 2017, the local public service as an index of the sustainable development, the Nation House for publication and distribution, Algeria.

2. Journal article :

- Rachida Htatach, 2017, the quality of the public service in the light of the smart electronic government, economic visions journal, University of Hama Lakhder of el Ouedi, Algeria, No° 12.
- Faiza Majdoub & Miloud Tich, the role of the electronic government in rationalizing the public service: reading in the concept and the application mechanisms, University of Setif, the issue of the 1st international congress entitled “the institution between the public service and the management of the human resources” on 17-18 November 2015, p. 428.
- Nouredine Chenoufi, **courses in public management**, the economic researcher gate (ERG), October 2018, p. 3.

- The People's Democratic Republic of Algeria, constitutional amendment of 2016 on the amendment of the Constitution of 1996, 06 March 2016, official gazette 14 of 07/03/2016, Article 53, paragraph 3.

3. Internet websites:

-Supreme UN Delegation for the Human Rights, the world we want, UN growth program 2013, URL, <https://www.ohchr.org/AR/Issues/MDG/Pages/Intro.aspx> accessed on 28/03/2019.

- Ida Lindgren and Gabriella Jansson, Electronic services in the public sector: A conceptual framework, 2013, Government Information Quarterly, (30), 2, 163.

<http://dx.doi.org/10.1016/j.giq.2012.10.005>

¹ Op. cit, p. 164.

-[Barbara Ubaldi](#), L'administration électronique, support de l'innovation dans les services publics, dans [Revue française d'administration publique 2013/2 \(N° 146\)](#), pages 449 à 464. disponible sur URL :

https://www.researchgate.net/publication/257244390_Electronic_services_in_the_public_sector_A_conceptual_framework,date visite 06/02/2020 at 22 :30 GMT.

The educational academy, Chi square test of independence, available at: educade.me.