

Workers' Attitudes towards Digitization Role in Improving the Services Quality in the Algerian Institution The Case of Postal Institution's Workers in Bechar

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Abstract: This study aimed to find out the workers' attitudes towards the digitization role in improving the services quality in the Algerian institution, the sample was 95 postal institution's workers in Bechar. The descriptive analytical approach was chosen as method of research, in addition to questionnaire as a study tool. To extract results the SPSS program version 20 was used. The work results were as follow; Firstly, the workers have positive attitudes towards the role of digitization inside the institution. Secondly, there is a close relationship between the application of digitization in the institution and organizational development. Thirdly, there is a relationship between the use of digitization and the effectiveness of functionality. Fourthly, there are no statistical significant differences in the workers attitudes that attributable to gender and age, while we have recorded statistically significant differences for workers whom have work seniority from 5 to 10 years.

Keywords: *Digitization – Service Quality - Organizational Development - Effectiveness - Job Performance*

1. INTRODUCTION:

Many worlds' countries are witnessing a great development in communication technologies, through which they seek to raise and improve their administrative services in line with new electronic transformations and developments. Consequently, the institution efficiency has become linked to the extent to which it has digital communication equipment and means. Algeria, as other countries, has moved towards the transformation of information modernization in all fields. Thus, this study aimed to find out the workers'

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attitudes towards the digitization role in improving the services quality in the Algerian Postal institution and especially in Bechar.

Research questions: based on the research goal, the most important sub-questions can be underlined as follows:

- Is there any relationship between the workers' attitudes towards digitization and the improvement of services quality?
- Is there any relationship between the use of digitization and the work organizational development inside the postal institution?
- Is there any relationship between the use of digitization and the job performance effectiveness among postal workers?
- Are there any statistical significant differences between workers' attitudes towards digitization role attributable to gender, age and seniority?

Hypotheses: to answer the general question, the following hypotheses were proposed:

- There is a relationship between the workers' attitudes towards digitization and the improvement of services quality.
- There is a relationship between the use of digitization and the work organizational development inside the postal institution.
- There is a relationship between the use of digitization and the job performance effectiveness among postal workers.
- There are statistical significant differences between workers' attitudes towards digitization role attributable to gender, age and seniority

The objectives of the study:

- The effect of digitization application on the organizational development and job performance in the Algerian institution.
- Knowing the awareness of the employees toward the importance of technological progress, especially the application of digitization.

Method: It is obvious that we need methodology without which the objective we aim to achieve would become impossible. Thus, the descriptive analytical approach is chosen as the appropriate method for this work. We used questionnaire as the data collection tool, we divided it into three parts; the first related to sample personal information such as: gender, age, seniority. The second attached to the role of digitization; the third related to how digitization improves the services quality. The latter was divided into two other dimensions; the first was

about the organizational development of the Algerian institution; while the second was devoted to the effectiveness of the Algerian institution functional performance. In addition; the “**Likert scale**” also was used to measure workers’ attitude by providing a range of responses to a given question or statement. In Likert scale the respondent is presented with a set of statements on a scale ranging from strongly agree- agree - disagree - strongly disagree. The form contained Thirty three 33 statements .The study sample was 95 postal institution’s workers in Bechar that were chosen randomly.

2. Digitization

2.1 Definition

It is defines as the representation of an object through its sound and imagery represented in its digital form. It has also spurred the occurrence of increased levels of digitization (Rahman & Hussaini, 2011, p 19). Digitization is of crucial importance to data processing, storage and transmission, because it allows information of all kinds in all formats to be carried with the same efficiency and also intermingled. The term is used when converting information, like text, images or voices and sounds, into binary code. Digitized information is easier to store, access and transmit, and digitization is used by a number of consumer electronic devices (Qurashi, 2011, p 840).

2.2 Digitization in Algerian Postal Institution

The postal sector, like other sectors; is occupying an important position in both the economic and social fields. It has undergone several reforms, resulting in the establishment of a public institution of an industrial and commercial nature that allows the building of a modern state and the provision of advanced services to society .Postal institution in Algeria has developed a range of digital services to provide better service to its customers, it can be summarized in:

1. **An electronic transfer:** used to transfer funds to someone else who does not have an account and this service is available at all Algerian post offices connected to the network.

2. **ATM card:**which enables a customer to access their financial accounts via its and others' automated teller machines (**ATMs**) and to make approved point of purchase retail transactions (i.e. gas stations, grocery, hardware, department stores, etc.) **ATM** cards are not credit cards or debit cards.

3. **ECCP:** customers can view their current postal account balance by accessing the following link: <https://eccp.poste.dz/>.

4. **Racidi Service:** offered by postal institution in partnership with the national mobile operator Mobilis, to facilitate THE CCP consultation by directly using your mobile phone, whether conventional or Smartphone. To do this

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operation, you must have the mobile turned on, and then you just have to send an SMS to the number **603** containing the following message: "The number of the CCP account (space) confidential code ".After that, the customer will receive a reply via another SMS with the complete some available in his account.

5. **Western Union service:** it allows postal customers to collect funds issued from more than 190 countries around the world in national currency at post offices in the near future, which provide and help foreigners and immigrants transfer money to and from home and abroad.

6. **Racimo service:** provides customers with advance payment to Mobilis, which is called automatic packaging. To subscribe to this service, you must apply to any postal organization and write down customer information on the subscription contract for Racimo service to provide the postal worker with your mobile phone number and current postal account number, after which the subscription is confirmed through a text message containing the customer's pin code.

7. **Arsili service:** The organization provides the possibility to fill your mobile phone balance for the Mobilis line without paying fees.

8. **Baridi Mob:** is an application aimed at gold card customers, allowing them to perform many operations without moving anywhere, featuring a simple and beautiful design that is fully compatible with the graphic identity of the organization and is available for free download on Android devices.

9. **Hawala service:** is a real-time, simple and secure money transfer service, via an electronic transfer, and this new service comes to enrich the financial services package for postal institution in Algeria.

3. Questionnaire Analysis:

This part is mainly concerned with presenting the questionnaire results, which are arranged according to the main research questions.

3.1 Findings: Background information

3.1.1. Gender distribution

Table 1: *Workers' gender distribution*

Gender	Number	Percentages
Male	35	36.8%
Female	60	63.2%
Total	95	100%

Figure 1: *Workers' gender distribution*

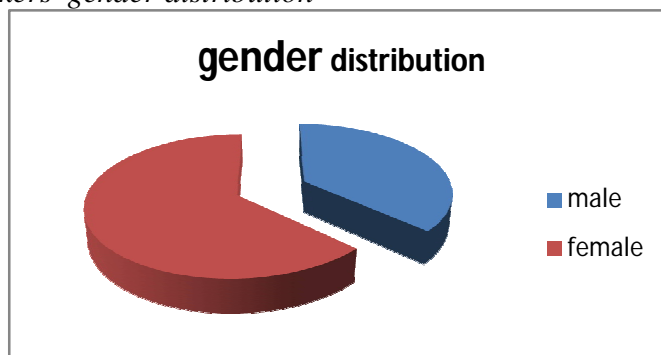


Table [1] shows that most of the participants are females. The number of all participants is 95; there are 60 females, i.e. (63.2 %) of the whole sample. The remaining are (35) males; they represent 36.8%) of the sample. We can state that the interpretation of the strong presence of the female element is due to the requirements of modern life and the subsequent economic needs of the most important factors that contributed to women's large numbers going out to the workplace to help men improve the standard family members living.

3.1.2. Age Distribution

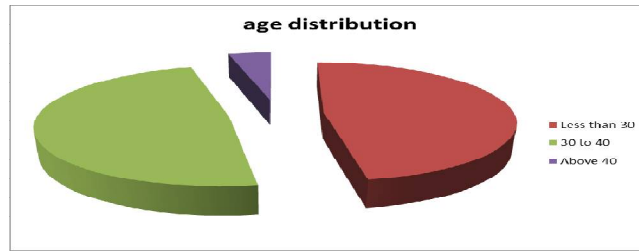
Table 2: *Workers' age distribution*

Age	Number	Percentages
Less than 30	45	47,4%
30 to 40	46	48,4%
Above 40	4	4,2%
Total	95	100%

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Figure 2: *Workers' age distribution*



According to the results shown in table [2], we notice a genuine diversity in the age of the participants which was split into three (03) categories. Those who are less than 30 represent (47.4%). The second one is between 30 to 40 years old which is equal to (48.2%). The third category is for those who have more than 40 years old which represent (4.2%). This shows that most of the workers at Postal institution in Bechar are relatively young.

3.1.3. Seniority Distribution

Table 3: *Workers' seniority distribution*

seniority	number	Percentages
Less than 5 years	46	48,42%
From 5 to 10 years	45	47,36%
From 15 and more	4	4,22%
Total	95	100%

Figure 3: *Workers' Seniority distribution*

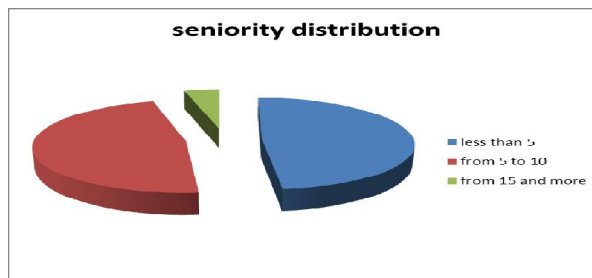


Table [3] shows the sample distribution based on number of working years in the institution. We can noticed that workers whom have seniority of five 5 has reached 48, 42%, which represents the highest percentage compared to the rest categories. Workers whose seniority ranges from 5 to 10 years represent 47, 36%, while workers whose seniority exceeds 10 years has registered the lowest percentage of 4.22 % years. These results indicate that most of the workers do not

have seniority at work and they are not highly experienced.

3.2. Workers' attitudes towards the digitization role in improving the services quality:

Table 4: *Workers' attitudes towards the digitization role in improving the services quality*

	Std. Deviation	Weighted average	Statistics Decision
Workers' attitudes	0.32	3.24	Positive

Source: SPSS outputs

We notice from table [4] that study sample have positive attitudes estimated at 3.24 and standard deviation estimated at 0.32, thus digitization has a role in improving the services quality.

3.3. The correlation coefficient between the digitization role and Organizational development, performance effectiveness and services quality :

Table 5: *Organizational development, performance effectiveness and services quality relation to digitization*

	digitization role
<i>Organizational development</i>	0.30**
<i>performance effectiveness</i>	0.06*
<i>services quality</i>	0.14*

**At 0.01 indication level

*At 0.05 indication level

Source: SPSS outputs

Fromtable [5], we can indicate that the correlation coefficient between the digitization role and the services quality was estimated at 0.14*at the level of 0.05.The correlation coefficient between the digitization role and organizational development was estimated at 0.30**, At the 0.01 indication level, this indicates that the more the workers use digitization the more service quality will improved and this confirms a positive relationship. Lastly; the correlation coefficient between the digitization role and performance effectiveness was estimated at - 0.06*, at the level of 0.05 and this indicate an inverse relationship between them in the sense that the higher the digitization, the lower the effectiveness of performance.

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3.4. T-testing Analysis Results:

3.4.1. T- test for gender differences:

Table 6: *T-test for gender differences*

<i>Gender</i>	<i>N</i>	<i>Mean</i>	<i>Std.deviation</i>	<i>t</i>	<i>Sig. (2-tailed)</i>
<i>Male</i>	35	25.28	5.44	-1.81	0.07
<i>Female</i>	60	26.56	0.60		

Source: SPSS outputs

The third hypothesis stated that there are gender differences between male and female workers toward the digitization role inside the institution. Thus, to test this, we used an independent samples t-test to compare the means for both the genders. On average, female workers had a much higher reliance on competitive analysis and the analysis of data (M = 26.56, Std = 5.44) than male workers (M = 25.28, Std = 0.60) this table demonstrate the P-value of 0.07 is statistically significant at (p= 0.07 > 0.05). Therefore, it can be claimed that there is a no significant difference between male and female workers' attitudes toward the digitization role inside the postal institution.

3.4.2. ANOVA test forage differences:

ANOVA analysis was used to explore if there was any significant differences between male and female workers based on their age.

Table 7: *ANOVA test for age differences*

	Sum of squares	df	Mean square	f	sig
Between group	40.01	2	20	1.79	0.17
Within group	1026.13	92	11.15		
Total	1066.14	94			

Source: SPSS outputs

To test the hypothesis stated that age affect the workers' attitudes toward the digitization role, ANOVA was utilized to test whether there is a statistically significant difference between the perception means of the participants. Results of the analysis of variance indicated no significant differences among all workers (F = .1.79, p = 0.17) P-value of 0.17 is statistically significant at (p= 1.07 > 0.05). The survey questions illustrate high levels of agreement between the staff among the role of digitization which improve the service quality of postal institution.

3.4.3. One-way ANOVA contrast for seniority differences :**Table 8:** *One- way ANOVA test for seniority differences*

Source of variation	Sum of squares	df	Mean square	f	sig
Between group	72.96	2	36.48	3.37	0.03
Within group	993.18	92	10.79		
Total	1066.14	94			

Source: SPSS outputs

From table [8] it is clear that the value of the "F" of the digitization variable was estimated at 3.37 at probability value 0.03, which is smaller than the indication level of 0.05, so there are statistically significant differences attributable to the seniority, and to find out the differences direction we used the POST HOC test:

Table 9: *POST HOC test binary comparison*

Binary comparison	Mean	P value
Less than 5 years - to 5 to 10 years	1.20	0.23
	3.82	0.08
From 5 years - to more than 5 to 10 years	-1.20	0.23
	-2.62	0.23
From 5 to 10 years to more than 10 years of work	-3.82	0.08
	-2.62	0.23

Source: SPSS outputs

Through the POST HOC test binary comparison table, we can state that **P value** for the two categories: from (less than 5 years) and from (5 to 10 years) estimated at =0.23, and two categories: (from less than 5 years) to (0.23 years) 10 years and more) p value was estimated at =0.23, while the categories of (5 to 10 years) and (more than 10 years) p value was estimated at =0.23, this indicates that there are differences in digitization role among workers who have seniority from 5 to 10 years.

3.5. Internal Consistency Reliability:

We calculated the reliability of the internal consistency of the scale items by calculating the correlation transactions to find the consistency of each of the total paragraphs of the test.

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Table 10: *Correlation coefficient for digitization variant*

Statement	Correlation coefficient
1- Digitization is characterized by the performance speed	**0.52
2- Digitization make place closer and reduce time between the employee, the institution and the customer	**0.36
3- Digitization facilitates working procedures	**0.46
4- I support the use of digitization inside institutions.	**0.59
5- The adoption of digitization within institutions leads to results accuracy	**0.54
6- Digitization seeks to provide quality services	**0.76
7- Digitization guarantees easier service	**0.77
8- The use of digitization helps keeping up with external developments	**0.69
9- Digitization application contributes to institution modernization	**0.70

By calculating Pearson's correlation coefficient, we find that there is a positive correlation at the indication level of 0.01.

Table 11: *Correlation coefficient for organizational development*

Statement	Correlation coefficient
1- Digitization increases the efficiency and effectiveness of working within the organization	**0.50
2- Digitization has reduced the rates of conflict between workers	**0.54
3-the digitization use cancel paper archives and replace it by an electronic archive	*0.23
4- Digitization achieves the required speed in the work completion and information accuracy	**0.68
5- Improved digitization of services provided by institutions	*0.66
6- Digitization eliminates the concept of mediation in the service management	**0.56
7- Digitization simplifies administrative procedures and working methods	*0.04
8- Digitization raises the level of professional performance	**0.78
9- Digitization shortens the geographical and temporal dimension inside institutions	**0.48
10- Digitization reduces pressure at the level of service windows and reduces waiting times for citizen	**0.61
11- Digitization eliminates bribery and nepotism.	**0.46
12-Digitization allows for rationalization of expenditures and cost reduction	**0.29
13- Digitization eases the burden on the administration, the worker and the citizen.	**0.37

*Function at (0.05) level ** function at (0.01) level

*Source: SPSS outputs***Table 12:** Correlation coefficient for effectiveness of functionality

<i>Statement</i>	<i>Correlation coefficient</i>
1- I've become a quick worker thanks to digitization.	**0.53
2- Digitization has reduced my mistakes at work.	**0.72
3- I was able to digitize the monitoring and follow-up process.	**0.79
4- Digitization provided me with information.	**0.68
5- Digitization has created my spirit of creativity.	*0.21
6- Digitization gave me training opportunities.	**0.31
7- My colleagues and I have become more experienced and skilled in applying digitization.	**0.74
8- Thanks to digitization, my institution has a modern machine to perform different works.	**0.87
9- My institution has a high internet service	**0.30
10- My institution provides me with all computer accessories , printers and storage units	**0.87
11- My institution is keen to protect information and data and keep it confidential.	**0.75

*Function at (0.05) level

** function at (0.01) level

Source: SPSS outputs

From the three table [10], [11], and [12] above, we can noticed that correlation coefficient value is positive, and there is a similar and identical relation between the variables and their questions.

4. Discussion of Questionnaire Findings:

This section will discuss and provide an interpretation of the findings from the questionnaire data in an attempt to offer answers to the questions guiding this study and check the validity of the research hypotheses.

➤ The results showed that the adaption of digitization inside the postal institution contributes significantly (I agree) to improve the postal service, where it has contributed significantly to facilitating the communication process between different departments, improving the level of services provided by the institution, and simplifying postal procedures. The results agree with Buglashi Emad 2011 study on the role of digitization in improving the performance of public administrations. He stated that using digitalization and adapting technology in any

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institution has greatly helped to embody some public projects, and it also led to a shift towards a digital path that increases its competitiveness. **This indicates that the first hypothesis was supported.**

➤ Based on the statistical analysis to test the second hypothesis, the results showed that there is a relationship between the use of digitization and organizational development of workers inside the postal institution in Bechar. These findings agree with the study of JalabIhsan 2011, who states that digitization employs information technology in order to support and build a positive institutional culture among workers and work to build knowledge and increase interdependence between them; moreover it can enhance confidence between them in Decision-making. He also pointed out that there is a close relationship between the application of digitization within the organization and the organizational culture, because of the benefits it achieves in guiding the workers behaviour and encourage them to develop their ideas and interact with the work environment. **This indicates that the second hypothesis was supported.**

➤ There is a positive impact on the application of digitization on the effectiveness of the job performance of workers in the postal institution in Bechar. Digitization has contributed significantly to the speed of completion of the work, facilitating the process of monitoring and follow-up, increasing productivity and improving communication between workers and reducing error rates. This is in line with Attia Al Arabi 2012 study, where he found a relationship between the use technology and the effectiveness of functionality. **This indicates that the third hypothesis was supported.**

➤ The findings of the fourth hypothesis indicate that there are no statistically significant differences concerning the workers' attitudes toward digitization role in Bechar Postal institution. in in the answers of workers at the Bashar State Postal Corporation attributable to gender and age. This results disagree with Iman Hassan Mustafa Khalouf study 2010 on the application of digitization in public secondary schools in the West Bank from the point of view of male and female managers, the results concluded that there are differences due to gender and age of the participants .Thus, **the hypothesis that indicate a statistical significant differences between workers' attitudes towards digitization role attributable to gender, age was rejected.**

➤ Moving to the hypothesis that indicates statistical significant difference between workers' attitudes towards digitization role attributable to seniority indicate a statistically significant difference in the answers of workers with seniority from 5 to 10 years at work, and this **supported the last hypothesis.**

5. CONCLUSION :

The aim of this study is to find out the workers' attitudes towards the digitization role in improving the services quality in Bechar postal institution. The work results indicate that the adaptation of digitization has been found to be a successful solution to upgrading the level of various administrative institutions in terms of performance, organization and productivity .Relying on a set of statistical tools and methodological procedures, we presented and analyzed the answers of the sample members, and after testing the hypotheses of the study we found that digitization played a significant role in Bechar postal institution based on workers' point of view at a high level, as well as its contribution in improving the services quality to a high degree of impact. Based on our results we can indicate that digitization has become an urgent necessity on which the postal institution is based in achieving its goals, and improving the services quality. Digitization touched several aspects such as, it changed the shape and performance of the postal sector sensitive that serve the citizen and reduce his suffering and gain satisfaction.

The postal institution has witnessed a marked development in the provision of electronic services, and a significant increase in users of this sector. It sought to improve the quality of services provided to customers, reduce queues, secure dependencies, digitize monitoring and daily and monthly accounts, upgrade the use of electronic payment methods in order to reach a reliable information system, which includes all mail activities and at all levels, facilitating the centralization of performance and services while ensuring regular and strict monitoring. One of the most important findings is that digitization has a significant impact on the effectiveness of workers' performance through speedy completion of work using information technologies and communications to help make the decision, as well as to raise the performance quality and efficiency of workers, in addition to developing the mechanism of work and keeping up with developments and planning for future projects.

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