

Role of Digitization in Improving the Quality of health Service Case Study of The Emergency Department, Bab El Oued University Hospital Center, Algiers, Algeria

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Abstract :

The study in this paper sought to know the extent to which digitization contributed to improving the quality of the health service. We relied on the questionnaire as a key tool for this study, where the sample included 220 patients, and analyzed their answers to see the impact relationship between the use of digitization and improving the quality of the health service in its dimensions. (tangibility, reliability, responsiveness, passion and safety) in the service of emergencies, Bab El Oued University Hospital Center, Algiers, Algeria, SPSS Version 22 was used for statistical analysis of data. The most important findings are: there is a significant correlation impact between the use of digitization and the quality of the health service.

Keywords: Digitization, Public Service, Quality of Health Service.

Introduction:

The health sector is a vital and essential sector in the lives of individuals and communities. Therefore, countries have paid great attention to this sector in order to promote and develop it, and to meet the constant and enduring needs of beneficiaries, patients.

The technological revolution in today's world of using ICT, the Internet and other networks has led different institutions to search for new innovations and methods based on new technologies of communication and adopting the digital method rather than the traditional method of running and accomplishing activities and business. This digital transformation encompasses business organizations, public organizations and the daily lives of individuals.

Public health institutions seek to ensure the continuity and improvement of health services in order to meet patients' wishes and improve the methods and means of health care.

The use of digitization in the public health sector has recently increased in search of greater efficiency, effectiveness and improved service delivery.

From the above, the following key question can be asked: How does digitization improve the quality of the public health service?

This question includes the following sub-questions:

-What is the theoretical framework for digitization?

-What is the theoretical framework for the quality of the health service?

-What impact has the use of digitization had on improving the quality of the health service from the study sample's point of view?

The importance of the study:

The importance of this study is that it addresses an important topic, namely the impact of digitization on the improvement and quality of public service. The importance of this topic can be highlighted through the following elements:

- Increased use of digitization in many public sectors and institutions and its role in improving the services provided.
- The novelty of the subject.
- Algeria's authorities aim at expanding and mainstreaming the use of digitization in all sectors in order to streamline the procedures for accessing and developing public services.
- The Ministry of Health has adopted a digitization method to improve services in public health institutions.

Objectives of the study:

This study seeks to achieve a range of objectives, the most important of which are:

- Recognize concepts and aspects related to digitization and quality of health service.
- Determine the impact of the use of digitization on the quality of the health services provided.
- Identification of the reality of the use of digitization in the interest of emergencies of Bab El Oued University Hospital Center, Algiers, Algeria and its impact on improving the quality of services provided from the point of view of the service beneficiaries (patients).

Methodology:

On the theoretical side, we relied on the prescriptive curriculum. On the applied side, we relied on the case study curriculum. The identification was used as a major tool and was distributed to a sample of patients in the Emergency Department of the University Hospital Centre Bab Wade. Statistically, data processing was done by the SPSS 22 statistical package.

Hypotheses:

We started from the following hypotheses:

Main hypothesis:

There is a statistically significant impact relationship between digitization and the quality of the health service in the Department of Emergencies of the Bab El Oued University Hospital Center, Algiers, Algeria at a morale level of 0.05.

The following partial hypotheses differ from the main hypothesis:

- 1-There is a statistically significant impact relationship between digitization and the quality-of-service tangible standard in the urgent interest of the Bab El Oued University Hospital Center, Algiers, Algeria at a morale level of 0.05;
- 2-There is a statistically significant impact relationship between digitization and the reliability standard for quality of service in the urgent interest of the Bab El Oued University Hospital Center, Algiers, Algeria at the morale level of 0.05;
- 3-There is a statistically significant impact relationship between digitization and the quality-of-service response standard in the urgent interest of the Bab El Oued University Hospital Center, Algiers, Algeria at a morale level of 0.05;
- 4-There is a statistically significant impact relationship between digitization and the quality-of-service safety standard in the urgent interest of the Bab El Oued University Hospital Center, Algiers, Algeria at a morale level of 0.05;
- 5-There is a statistically significant impact relationship between digitization and the emotion standard of service quality in the urgent interest of the Bab El Oued University Hospital Center, Algiers, Algeria at the morale level of 0.05.

Spatial limits of study:

The field study was conducted at the Bab El Oued University Hospital Center, Algiers, Algeria in the Department of Emergencies.

Time limits:

The field study was conducted from 01 August 2024 to 01 October 2024.

Literature review of Previous Studies:

The most important studies we have relied on are:

1- Researcher Faris Salah Najm's study, The Extent of the Quality of Health Services in Private Hospitals in Nineveh Governorate Analytical Study from the Perspective of Beneficiaries (Patients), University of Kirkuk Journal of Administrative and Economic Sciences, vol. 11, No. 2.2021.

p. 53-85. What was the problem with the study?

The main objectives of the research are: to determine the dimensions of the quality of the health service in the health institutions studied and the degree of satisfaction thereof.

The main tool used in research is: the resolution and statistical method used is SPSS

The most important findings are: We show interrogators' opinions about the availability of quality dimensions of the health service in the health institutions studied.

2- Study of researchers: Governor Ehsouni Al-Mayali, Yahya Habib Shenin, Electronic business technologies and their impact on the quality of service in health institutions, Journal of the Center for Kufa Studies. Vol. 1, issue 71. 369-398. 2023.

Problematic study: Is there an impact relationship between the application of electronic business technologies and the quality of health services in the health institutions researched?

Research Objectives: Recognize the importance of e-business technologies in health institutions.

Learn how e-business technologies affect service quality

The main tool used in research is: the resolution and statistical method used is SPSS, Amos.

The most important results of the study: there is a statistically significant relationship between electronic business technologies and the quality of health services in the health institutions researched.

The quality of the service is influenced by e-business technologies at the macro level in the researched health institutions.

3- Study of researchers: Marwa Star Gabr, Ala 'a Mohsen Khafeef Al-Gharbalawi, Role of Electronic Administration in Streamlining Administrative Procedures in the Organization, Field Study of a Sample of Iraqi Ministry of Oil Personnel, Journal of Administration and Economics, Issue 130, 2021, p. 46- 65

The problem of the study: Does e-administration contribute to raising the performance of Ministry of Oil departments?

The objectives of the research are: to learn about the concepts related to electronic management. and knowledge of the relationship between the application of electronic management and the streamlining of administrative procedures.

The main tool used in the search is: the resolution and statistical method used is SPSS, the number of 60 sample personnel.

The most important findings are: there is a statistically significant impact relationship between the application of e-governance

and streamlining administrative procedures.

4- Hajar Al Hubaishi, Abdelrahim Ali. (2024). The Effect of Public Healthcare Service Quality on Residents' Satisfaction in the United Arab Emirates (UAE), the Case of Ajman Emirate, Health, 14, 306-32,

The title of this study is: The impact of public health services on the population in the Emirate of Ajman in the United Arab Emirates,

The problem of the study: What is the relationship between the quality of public health services and the satisfaction of the population?

The main objectives of the study: to recognize the quality of the health services provided, to identify the factors influencing the quality of the health services in

Ajman Emirate in United Arab Emirates. and measuring the population's satisfaction with the quality of health services provided.

The main tool used in the search is: the resolution and statistical method used is SPSS, the number of sample personnel

Ho: 1035. The most important findings are: 82% of respondents are satisfied with the quality of the health services provided.

5- Study by Haider Hassan Ali Al Saadi, Sara Ali Said Al Amiri, Impact of Strategic Ingenuity in Enhancing the Quality of the Health Service, Field Research at the Ministry of Health, Baghdad College of Economics University Journal, No. 70, 2022. Baghdad University Faculty of Administration and Economics, Iraq.

Problematic study: Is there an impact relationship between strategic ingenuity and health service quality?

The main objectives of the study: to recognize the impact of strategic ingenuity on the quality of the health service in the research organizations.

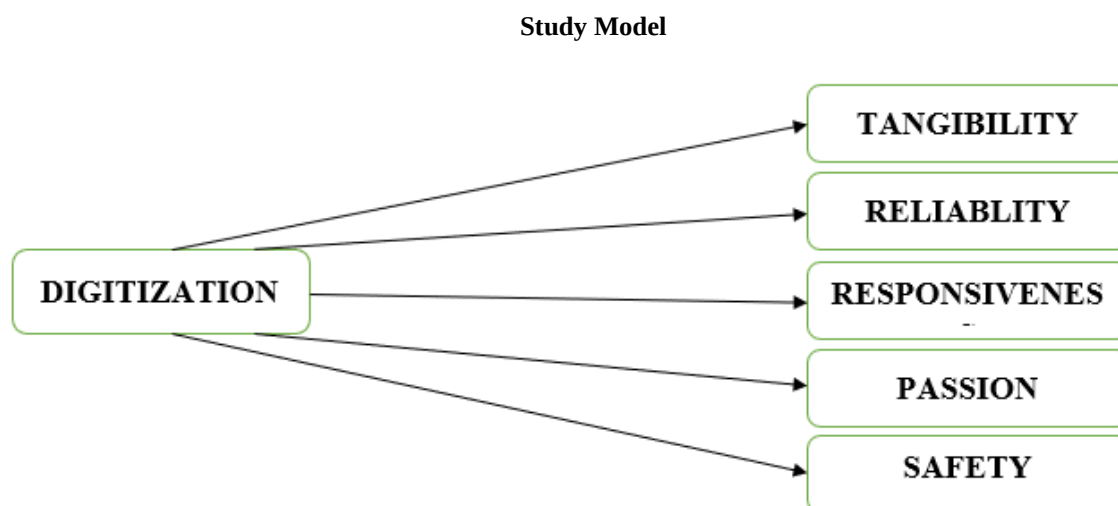
The main tool used in the research is: the resolution and statistical method used is SPSS, the number of sample personnel is: 179. The most important results: a strong positive relationship between strategic ingenuity and the quality of the health service.

Commentary on Previous Studies:

Previous studies have dealt with e-governance and its relationship to improving health services in general, i.e. in health institutions. Current study addresses the impact of digitization on the quality of health services in the interest of urgencies. This service is the main mirror of hospitals, in order to ensure rapid emergency care and health care where a large number of patients are intended.

Study Model:

The independent variable is electronic management and the dependent variable is the quality of the public service. In this research, we try to examine the impact of electronic management on the quality of the public service by its five criteria (tangibility, reliability, responsiveness, passion and safety) as shown in figure 1.



Source: Prepared by researchers based on previous studies

Theme 1: The Theoretical Framework of The Study

This theme addresses theoretical concepts of digitization and quality of health service

First: Concepts in Digitization

The concept of digitization is linked to the widespread use of ICT and Internet networks or what is known as electronic or digital transformation.

1- Definition of Digitization

The concept of digitization is broad, as researchers have diversified their views in the definition of it. Specialists consider that digitization means the use of different communication networks and modern technological techniques in the performance of various works and activities in organizations and in individuals (Attallah al-Saadi, 2024, p. 38).

Digitization also refers to the use of modern communication technologies and information technology such as the Internet in the performance of business and transactions, the provision of goods and services between organizations, customers and customers, whether business or public organizations, in order to improve the development and quality of goods and services provided. (Muhammad Al-Anzi, 2024, p5).

Digitization is defined as the adoption of the online method in organizations' performance in order to deal with customers and provide goods and services. (Claudiu & al, 2023, p 5).

It can be said that digitization means the use of information and communication technologies in the execution of various tasks and transactions based on different communication networks such as the Internet between organizations, customers, customers and individuals based on electronic rather than traditional methods.

2- The concept of digitization of health services

The health sector is a vital and essential sector, so health organizations and States seek to develop and improve it based on the use of modern ICT.

Digitization of health services means the use of information and communication technology in health care and in the management of health institutions such as the use of electronic health records, allowing for the improvement of services provided and the satisfaction of beneficiaries.

(Ng'andu & Haabazoka, 2024, P 1136). Based on the above, it can be said that the digitization of health services means: Use electronic management and digital ICT methods in health services to improve them.

3- The role of digitization in improving health services

The use of digitization helps accuracy in business delivery, reduces error ratio and reduces costs (Tah Yacine, 2022). Digital technology contributes to the development of health services by streamlining procedures for patient care and better care by relying on digitization in health departments and services such as telemedicine and digital health records, as well as reducing costs and earning time effort, and increasing the effectiveness of health institutions Dimitrios & al, 2024, p 246) Digitization simplifies access to health services, i.e. the provision of services in the least time and the easiest way. (Marwa Star Gabr, Ala Mohsen Light Gharbalawi, 2021, p. 54).

Second: Concepts in the quality of the health service

This element addresses theoretical concepts regarding the quality of the public service and the quality of the health service.

1- Definition of public service quality

The quality of the public service is defined as the provision of high-end services that correspond to the current and future needs of the beneficiaries (Najm Al-Din Abdullah, 2024). It also means improving services that make beneficiaries feel compatible with their expectations. (Bernabé, 2024, p 2700).

2- Health service quality concepts:

The quality of the health service is meant to provide a high-end service and full and effective health care from service providers that meets the perceptions and expectations of the beneficiaries (patients). (Khader Elias, Jubouri, 2023, p. 207). The quality of the health service is linked to the quality of the services provided and means the provision of health services that have shown effectiveness and received the satisfaction and acceptance of patients in health institutions. Hajar Al Hubaishi & Abdelrahim Ali, 2022, p 31). Through previous definitions, it can be said that the quality of the health service: the service provided by the health institutions, which has a set of characteristics that make it meet the needs and expectations of the beneficiaries (patients) and their satisfaction.

3- Dimensions Health Service Quality:

A set of standards shaping the quality of the health service has been adopted: tangible, reliable, responsive, safe (assurance), empathy.

According to researchers, the dimensions of service quality are the criteria on which the quality of service is measured: tangible, reliable, responsive, safe, passionate. (Winfrida & Omary, 2022) (Nayiga & Nuwagaba, 2024)

Tangibility 3 -1

means concrete manifestations such as buildings, offices, treatment halls, ambulances, treatment and hospitalization devices and equipment.

Reliability 3 -2

It means the degree of reliance on service providers where the necessary competence and qualifications must be available in order to provide quality services that are satisfied with patients.

Responsiveness 3-3

All beneficiaries of different conditions receive immediate care and health care, good treatment by the staff of health institutions and short waiting time, and cooperation to facilitate and streamline treatment procedures.

(Haider Hassan Ali al-Saadi, Sara Ali Said al-Amiri, 2022, p. 177)

Safety 3-4

It is intended to maintain the confidentiality of patients' information and objects, making them feel compatible and reassured with the provision of the best health services. (Alyali, 2023, p. 381).

Passion 3-5

This dimension depends on the quality of the health care provided, the degree of interest and the good treatment of patients without discrimination, the sympathy of service providers (administrative staff, medical staff, nurses staff) with the beneficiaries of the services, and the answer to their concerns (Salah Najem, 2021, p. 62).

Theme II: Field study**First: Methodological procedures for the study****1- Study Methods and Tools**

Here's a community, a sample and a study tool.

1-1 Society and Sample Study

The study community is all patients intended for the benefit of urgencies. The University Hospital Center Bab Wade. The study sample was selected a random sample consisting of 220 individuals. During the study period of two months from August 01, 2024 to October 01, 2024.

1-2 Study Tool

The Questionnaire was relied upon as a key study tool designed to achieve the study's objectives. The Questionnaire consists of three main sections:

Section I: Personal Data (Sex, Age)

Section II: devoted to independent variable digitization consists of 10 paragraphs

Section III: Dedicated to the subordinate variable quality of service consists of 12 paragraphs.

1-3 sincerity of Questionnaire**1-3-1 arbitrators' sincerity**

In order to ascertain the authenticity of the questionnaire, a group of specialized professors were presented for arbitration. The researcher finalized the questionnaire according to the teachers' observations and suggestions.

Based on the Lycart quinquennial scale of five options not fully approved 1 Not approved 2 Neutral 3 OK 4 completely OK 5. By the following table:

Table 1: Lycart Penta-scale

Data	Weights
Completely disagreeable	1
Disagreed	2
Neutral	3
OK	4
Totally OK	5

Source: Researchers' preparation based on previous studies

1-3-2 Questionnaire stability

In order to determine the gradient of the questionnaire and the consistency of its paragraphs, the alpha-krombach coefficient has been calculated. The results are lengthy in table 2, as follows:

Table 2: Measurement of Alpha-Chrombach coefficient

Data	Value of Alpha-Chrombach factories	Evaluation
Section I: Digitization 10 paragraphs	0.857	Good
Section II: Quality of Health Service 22 Paragraphs	0.840	Good
All paragraphs of the questionnaire 32	0.861	Good

Source: Prepared by researchers based on SPSS output version 22.

Table 2 shows that the value of the Alfa Krombach coefficient is high and at a good level. Accordingly, this questionnaire can be relied upon in our study.

Data processed statistically through IBM SPSS 22 Statistics Statistical Packaging Program data ", based on the statistical descriptive analysis of data that included the computational average, Standard deviation, percentages, alpha-crombach factor to measure questionnaire stability Analysis of the correlation that measures the correlation ratios between study variables, Stewdent t's simple regression factor test used to determine the degree of impact of the independent variable digitization in the service quality variable.

Second: Analysis of the study's findings

1 Analysis of results related to personal variables

1-1 Distribution of sample personnel by sex

Table 3: Distribution of sample personnel by sex

Personal Data (Sex)	Number	Percentage%
Male	115	52.27%
Female	105	47.73%
Total	220	100%

Source: Prepared by researchers based on SPSS output version 22.

Through the table, the distribution of sample individuals by sex is close, about half of the sample members of the sex are male.

The other half of the sex is female, which explains that, patients of both sexes come to the hospital for urgent treatment.

1-2 Distribution of sample personnel by age

Table 4: Distribution of sample personnel by age

Personal Data (Age)	Number	Percentage%
From 18 to 29 years old	8	3.63%
30 to 39 years old	10	4.54%
40 to 49 years old	12	5.45%
50 to 59 years old	40	18.18%
60 years and above	150	68.18%
Total	220	100%

Source: Prepared by researchers based on SPSS output version 22.

The table shows that the age group of 60 years and above is the most coming for the benefit of the 68.18% accelerators. This is explained by the fact that this group of older individuals with chronic diseases such as: diabetes, high arterial pressure

Kidney failure, asthma and other chronic diseases requiring urgent health care.

2 Analysis of the results of sample respondents

2-1 results of sample responses on digitization

Calculated average arithmetic and standard deviation of sample respondents. The results were represented in table 5.

Table 5: Digitization Variable Descriptive Statistics

Digitization	Arithmetic Average	Standard deviation	Level of approval
The Department of Emergency Services provides sufficient numbers of computers	3.55	0.67	High
Availability of interest on digital nets	4.50	0.62	Very high
Internet availability	3.66	0.71	High
Provide Intranet Network	2.90	0.59	Average
The service uses the patient's electronic medical file	4.30	0.72	Very high
Radiologists provide advanced technology	4.40	0.67	Very high
The department uses systems to protect patients' personal information	3.45	0.55	High
Qualified information technology staff Communication	2.95	0.63	Average
The formation of digitization staff facilitates the process of communication and care for patients	3.65	0.74	High

The composition of medical, paramedical and administrative staff in the field of digitization helps the quality of the health service provided.	4.50	0.81	Very high
Variable digitization	3.78	0.76	High

Source: Prepared by researchers based on SPSS output version 22.

Through the table, we note that the second paragraph provides the interest on a digital net and the tenth paragraph provides the composition of medical, paramedical and administrative staff in the field of digitization helps the quality of the health service provided to them with the highest average calculation 4.50 fourth paragraph provides the Intranet. Paragraph 8 means qualified ICT staff have average calculations of 0.90 and 0.95, respectively. The rest of the paragraphs have an average arithmetic in the level of approval. The calculation average for the digitization variable is 3.78. This explains that the patients interviewed see digitization in the interest of urgencies at Bab El Oued University Hospital Center, Algiers, Algeria.

2-2 Results of Sample Responses on Health Service Quality

Calculated average arithmetic and standard deviation of sample respondents. The results were represented in table 5.

Table 6: Health Service Quality Variable Descriptive Statistics

Digitization	Arithmetic Average	Standard deviation	Level of approval
Tangible	3.53	0.69	High
Reliability	4.41	0.59	Very high
Response	3.66	0.61	High
Safety	4.26	0.72	Very high
Passion	3.41	0.86	High
Total Dimensions Variable Quality Health Service	3.85	0.73	High

Source: Prepared by researchers based on SPSS output version 22.

From the table we note that the average arithmetic dimensions of reliability and security are 4.41 and 4.26 respectively at a very high level, while the other dimensions of tangibility, response and emotion were at a high level and their values were 3.53, 3.66 and 3.41 respectively. While the average calculation of the health service quality variable was reached 3.85. This explains the respondents' satisfaction with the health services provided in the interest of emergencies.

Third: Testing the study's hypotheses

1-Partial Hypothesis Test

This hypothesis states that: There is a statistically significant impact relationship between digitization and the tangible dimension of the quality of the health service in the interest of urgencies of the Bab El Oued University Hospital Center. The Pearson R correlation coefficient between the independent variable digitization and the tangible dimension of the healthy acuity, the R^2 determination coefficient, the value of the β vita, t, F results shown in Table 7.

Table 7: First Partial Hypothesis Test Results

Independent Variable	R	R²	F	t	β	Level of morale Sig
Digitization	0.610	0.340	8.931	3.731	1.831	0.008

Source: Prepared by researchers based on SPSS output version 22.

The value of the Pearson R coefficient is 0.61 and this explains a good and positive correlation between the use of digitization and the tangible dimension of the quality of the health service in the interest of urgencies of the Bab El Oued University Hospital Center.

The R^2 determination coefficient value is 0.340. This explains that any change in the tangible dimension of the quality of the health service in the urgent interest of Bab El Oued University Hospital Center, is explained by digitization by 34%.

The F value is: 8.931 The morale level is 0.008 below 0.05.

The t value calculated between the independent variable digitization and the tangible criterion is 3.731 greater than the table value of 1.95, while the morale level is 0.008 less than 0.05 and from which we reject the nihilistic hypothesis and accept the alternative hypothesis H1: A statistically significant impact relationship exists between digitization and the

tangible standard of quality of health service in the urgent interest of Bab El Oued University Hospital Center, at the morale level of 0.05.

2-Second Partial Hypothesis Test

This hypothesis states that: There is a statistically significant impact relationship between digitization and the reliability of the quality of the health service in the interest of urgencies of Bab El Oued University Hospital Center, Algiers, Algeria. The Pearson R correlation coefficient is calculated between the independent variable digitization and after the reliability of the acuity of the health, the R^2 determination coefficient, the value of the β duck, t, F results shown in Table (8).

Table 8: Second Partial Hypothesis Test Results

Independent Variable	R	R^2	F	t	β	Level of morale Sig
Digitization	0.690	0.470	7.220	4.231	1.931	0.009

Source: Prepared by researchers based on SPSS output version 22.

Pearson R coefficient value is 0.690 which is a positive value. This explains the existence of a positive and strong correlation between the use of digitization and the reliability of the quality of the health service in the department of emergencies of Bab El Oued University Hospital Center.

The R^2 determination coefficient value is 0.470. This explains that any change after the reliability of the quality of the health service in the emergency interest of Bab El Oued University Hospital Center, is explained by digitization by 47%. The F value is: 7.220 and the morale level is 0.009 below 0.05.

The value of t calculated between the independent variable digitization and the reliability standard is 4.231 greater than the value in the table of 1.95, the morale level is 0.009 less than 0.05, from which we reject the nihilistic hypothesis and accept the alternative hypothesis H1: there is a statistically significant impact relationship between digitization and the physical standard of health service quality in the emergency service of Bab El Oued University Hospital Center, at the morale level of 0.05.

3-Partial Hypothesis Test III

This hypothesis states that: There is a statistically significant impact relationship between digitization and after responding to the quality of the health service in the interest of urgencies of Bab El Oued University Hospital Center.

The Pearson R correlation coefficient was calculated between the independent variable digitization and after responding to the the dearth of the health service, the R^2 determination coefficient, the value of the β , t, F results shown in table 9

Table 9: Third Partial Hypothesis Test Results

Independent Variable	R	R^2	F	t	β	Level of morale Sig
Digitization	0.700	0.490	7.680	3.330	2.185	0.009

Source: Prepared by researchers based on SPSS output version 22.

The Pearson R coefficient has a positive value of 0.70. This explains the existence of a positive and strong correlation between the use of digitization and the response to the quality of the health service in the interest of urgencies of Bab El Oued University Hospital Center.

The R^2 determination coefficient value is 0.490. This explains that any change in response to the quality of the health service is in the interest of the urgency of Bab El Oued University Hospital Center, is explained by digitization by 49%. The F value is: 7.680 and the morale level is 0.009 below 0.05.

The value of t calculated between the independent variable digitization and the reliability standard is 3.330 greater than the value in the table of 1.95. The morale level is 0.009, which is less than 0.05, from which we reject the nihilistic hypothesis and accept the alternative hypothesis H1: A statistically significant impact relationship exists between digitization and the standard of response to the quality of the health service in the urgent interest of Bab El Oued University Hospital Center, at the morale level of 0.05.

4 Partial Hypothesis Test IV

This hypothesis states that: There is a statistically significant impact relationship between digitization and the safety of the quality of the health service in the interest of emergencies of Bab El Oued University Hospital Center.

The Pearson R correlation coefficient is calculated between the independent variable digitization and after safety of the acuity of the health, the R^2 determination coefficient the value of the β , t, F results shown in Table No. (10)

Table (10): Partial hypothesis IV test results

Independent Variable	R	R^2	F	t	β	Level of morale Sig
Digitization	0.680	0.485	8.150	4.125	1.890	0.009

Source: Prepared by researchers based on SPSS output version 22.

The value of the Pearson R coefficient: 0.680 is positive. This explains the existence of a positive and strong correlation between the use of digitization and the safety of the quality of the health service in the emergency service of the Bab El Oued University Hospital Center.

The R^2 determination coefficient value is 0.485. This explains that any change in the safety of the quality of the health service in the emergency interest of Bab El Oued University Hospital Center, is explained by digitization by 48.5%.

The F value is: 8.150 and the morale level is 0.009 below 0.05.

The value of t calculated between the autonomous variable digitization and the safety standard is 4.125 greater than the value in the table is 1.95, the morale level is 0.009 less than 0.05, from which we reject the nihilistic hypothesis and accept the alternative hypothesis H1: there is a statistically significant impact relationship between digitization and the safety standard of the quality of the health service in the emergency service of Bab El Oued University Hospital Center, at a morale level of 0.05.

5-Partial Hypothesis Test V

This hypothesis states that: There is a statistically significant impact relationship between digitization and after passion for the quality of the health service in the interest of urgencies of Bab El Oued University Hospital Center.

The Pearson R correlation coefficient between the independent variable digitization and after the emotion of the healthy heartburn, the R^2 determination coefficient is calculated the value of the β , t, F results shown in Table (11).

Table 11: Fifth Partial Hypothesis Test Results

Independent Variable	R	R^2	F	t	β	Level of morale Sig
Digitization	0.72	0.570	7.150	4.886	2.110	0.009

Source: Prepared by researchers based on SPSS output version 22.

Pearson R: 0.720 is a positive value. This explains a positive and strong correlation between the use of digitization and after the passion for the quality of the health service in the emergency service of Bab El Oued University Hospital Center. The R^2 determination coefficient is worth 0.570. This explains that any change in the dimension of emotion to the quality of the health service is in the interest of the urgency of Bab El Oued University Hospital Center, is explained by digitization by 57%.

The F value is: 7.150 and the morale level is 0.009 below 0.05.

The value of t calculated between the autonomous variable digitization and the emotion standard is 4.886 greater than the value in the table is 1.95, the morale level is 0.009 less than 0.05, from which we reject the nihilistic hypothesis and accept the alternative hypothesis H1: there is a statistically significant impact relationship between digitization and the emotion standard of the quality of the health service in the emergent service of Bab El Oued University Hospital Center, at a morale level of 0.05.

6-Main hypothesis tests

This hypothesis states that: There is a statistically significant impact relationship between digitization and the quality of the health service in the urgent interest of Bab El Oued University Hospital Center. The Pearson R correlation coefficient between the autonomous variable digitization and the modulus of the Hygiene Acuity modulus, the R^2 determination coefficient is calculated as the value of the β , t, F results shown in Table (12)

Table 12: Main hypothesis test results

Independent Variable	R	R^2	F	t	β	Level of morale Sig
Digitization	0.72	0.550	9.550	3.659	2.314	0.009

Source: Prepared by researchers based on SPSS output version 22.

Pearson R: 0.730 is a positive value. This explains that there is a positive and strong correlation between the use of digitization and the quality of the health service in the emergency service of Bab El Oued University Hospital Center. The R² determination factor is worth 0.550. This explains that any change in the quality of the health service in the interest of urgencies of Bab El Oued University Hospital Center.

The F value is: 9.550 and the morale level is 0.009 below 0.05.

The value of t calculated between the independent variable digitization and the variable of the quality of the health service is 3.659 greater than the value in the table is 1.95, the level of morale is 0.009 less than 0.05, from which we reject the nihilistic hypothesis and accept the alternative hypothesis H1: there is a statistically significant impact relationship between digitization and the quality of the health service in the department of emergencies of Bab El Oued University Hospital Center at a morale level of 0.05.

Conclusion

Through our study of the topic of digitization and its role in improving the quality of the health service and field study to know the impact of digitization on the quality of the health service in the Department of urgencies, Bab El Oued University Hospital Center, we know that digitization is a new method of managing organizations and executing works based on the use of modern communication technologies such as the Internet and helps to win time and effort.

The most important findings are:

- ❖ Digital technology contributes to the development and improvement of health services by streamlining procedures for patient care and better care, earning time and effort.
- ❖ The quality of the health service is the total of services provided by health institutions with characteristics that make it meet the needs and expectations of patients and satisfy them.
- ❖ A statistically significant impact relationship exists between digitization and the quality of the health service in the emergency service of Bab El Oued University Hospital Center, at the morale level of 0.05.
- ❖ A statistically significant impact relationship exists between digitization and the dimension of the quality of the health service, namely, tangible, reliable, responsive, safe and passionate, in the interest of urgencies at Bab El Oued University Hospital Center at the morale level of 0.05.

Recommendations

- ❖ Universalizing the use of digitization in all the interests of the University Hospital Centre Bab Wade in order to improve the quality of health services.
- ❖ To provide the Emergency Service of Bab El Oued University Hospital Center, with sufficient numbers of medical users and nurses because there is a significant shortage, especially of nurses.
- ❖ Establishing an electronic information system between all interests in order to facilitate communication and coordination.

Study prospects

It is suggested by researchers some future studies, as follow:

- ❖ The role of digitization in improving health services in neighboring public health institutions.
- ❖ The role of artificial intelligence in improving the quality of surgical operations.

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