International Journal of Innovative Technologies in Social Science

e-ISSN: 2544-9435

Scholarly Publisher
RS Global Sp. z O.O.
ISNI: 0000 0004 8495 2390

Dolna 17, Warsaw,
Poland 00-773
+48 226 0 227 03
editorial_office@rsglobal.pl

ARTICLE TITLE	THE IMPACT OF DIGITIZATION ON ADMINISTRATIVE CREATIVITY: A FIELD STUDY IN AN ALGERIAN PUBLIC INSTITUTION
ARTICLE INFO	Zedira Khammar, Nour El Houda Kouachi, Zahia Boumedjane, Hichem Amejouj, Said Mabrouki. (2025) The Impact of Digitization on Administrative Creativity: A Field Study in an Algerian Public Institution. *International Journal of Innovative Technologies in Social Science*. 2(46). doi: 10.31435/ijitss.2(46).2025.3372
DOI	https://doi.org/10.31435/ijitss.2(46).2025.3372
RECEIVED	30 April 2025
ACCEPTED	27 May 2025
PUBLISHED	30 May 2025
LICENSE	The article is licensed under a **Creative Commons Attribution 4.0 International License.**

THE IMPACT OF DIGITIZATION ON ADMINISTRATIVE CREATIVITY: A FIELD STUDY IN AN ALGERIAN PUBLIC INSTITUTION

Zedira Khammar
University of Oum Elbouaghi, Algeria. Social Problems in Algerian Society Laboratory
ORCID ID: 0009-0005-4795-499X

Nour El Houda Kouachi
University of Oum Elbouaghi, Algeria

Zahia Boumedjane
University of Khemis Meliana. Algeria

Hichem Amejouj
University of Oum Elbouaghi, Algeria

Said Mabrouki
University of Oum Elbouaghi, Algeria
ORCID ID: 0000-0002-7378-9159

ABSTRACT

This study aims to explore the impact of digitalization on administrative creativity, approaching the topic from two integrated perspectives: theoretical and applied. Theoretical in nature, it addresses the concepts of digitalization, its types, and challenges, in addition to providing a detailed presentation of the concept of administrative creativity, its characteristics, and basic theories. The field study is based on a case study of Mohamed Boudiaf Hospital in the province of Oum El Bouaghi, where the impact of digitalization components (such as digital transformation, cloud storage, and electronic applications) on the dimensions of administrative creativity (efficiency, cooperation, and adaptation) was analyzed.
The study aims to assess the organization's capacity to adopt digitalization, diagnose the reality of administrative creativity within the organization, and identify the most significant challenges and difficulties associated with both. The researchers used a structural-functional approach in their methodological framework, utilizing data collection tools such as questionnaires and interviews with a sample of administrative staff and physicians working at the facility.

KEYWORDS

Digitalization, Management, Administrative Creativity, Algerian Public Institution

CITATION

Zedira Khammar, Nour El Houda Kouachi, Zahia Boumedjane, Hichem Amejouj, Said Mabrouki. (2025) The Impact of Digitization on Administrative Creativity: A Field Study in an Algerian Public Institution. *International Journal of Innovative Technologies in Social Science*. 2(46). doi: 10.31435/ijitss.2(46).2025.3372

Introduction.

This study examines the impact of digitalization on administrative creativity in light of the modern technological revolution, focusing on the Algerian context, particularly the Mohamed Boudiaf Hospital in Oum El Bouaghi. Theoretical aspects of the study include the concepts of digitalization and administrative creativity in terms of their definition, importance, theories adopted, and measurement methods, basing its interpretation of the relationship between social and administrative systems on Parsons' social system theory. The practical aspect included a field study divided into three major components aimed at analyzing the impact of digital transformation, cloud storage, and electronic applications on administrative efficiency, collaboration, and organizational adaptation. The study's results showed that digitalization contributes positively to improving administrative performance, despite challenges such as insufficient training and difficulties accessing information. The study concluded with recommendations and suggestions aimed at strengthening digitalization in Algerian healthcare institutions. The researchers hope that this work will serve as a starting point for future research that will contribute to the development of electronic services in these institutions.

First: Theoretical framework of the study

1. Research problem:

In light of rapid transformations, organizations face challenges that require improved performance and adaptability, making creativity a fundamental necessity. The human element is pivotal to achieving efficiency and ensuring organizational continuity by motivating individuals to innovate and work collaboratively.

Administrative creativity has become a central topic in management science, given its role in development and change within organizations. It requires generating new ideas and improving processes and products. Contemporary theories, such as "open innovation," call for collaboration and knowledge sharing with the external environment. Researchers have identified several factors influencing creativity, including supportive leadership, personal freedom, diversity of tasks, and challenges.

Digitalization plays a vital role in enhancing administrative creativity, contributing to improved efficiency and supporting decision-making, according to multiple studies. However, it also poses challenges related to how to balance resources and objectives, especially in light of the complexity accompanying digital transformation. From a social perspective, digitalization is a comprehensive transformation that impacts the structure and values within organizations, necessitating adaptation and integration to achieve administrative and social balance.

The problem of the study: How does digitization affect administrative creativity within the Mohamed Boudiaf Hospital in Oum El Bouaghi Province?

Sub-questions:

1) Does the Mohamed Boudiaf Hospital in Oum El Bouaghi Province have the capacity to effectively implement digitalization?

2) What is the reality of administrative innovation at the Mohamed Boudiaf Hospital in Oum El Bouaghi Province?

3) What are the most prominent challenges facing digitalization at the Mohamed Boudiaf Hospital in Oum El Bouaghi Province?

Main hypothesis:

Digitization affects administrative innovation within the Mohamed Boudiaf Hospital in Oum El Bouaghi Province.

Sub-hypotheses:

1) Digital transformation has a significant impact on administrative effectiveness within the Mohamed Boudiaf Hospital in Oum El Bouaghi Province.

2) Cloud storage has a significant impact on collaboration among employees within the Mohamed Boudiaf Hospital in Oum El Bouaghi Province.

3) Websites and electronic applications have a significant impact on organizational adaptation within the Mohamed Boudiaf Hospital in Oum El Bouaghi Province.

2. Importance of the study:

The importance of digitization lies in its being both a means and an end. Institutions seek to adopt it to ensure organizational stability and achieve continuous development, paving the way for administrative creativity. The importance of this topic lies in the ability of the Oum El Bouaghi Hospital to effectively

implement digitization to overcome the obstacles that hinder administrative creativity, a complex field that requires high efficiency.

The institution plays a pivotal role in serving the local community, particularly in the health sector, and this study represents a scientific contribution to the subject of administrative creativity by introducing digitization as a key variable. When digitization is built on rational and clear foundations, it contributes to achieving administrative creativity on a relative basis, which positively impacts the institution and society, and helps facilitate a more balanced and comprehensive social and organizational upbringing of employees.

3. Reasons for choosing the topic:

Reasons for Choosing the Topic: This topic was chosen based on our scientific and research curiosity, which developed over time. Although initially brief and simplistic, it provided us with a clear understanding of the subject. In addition, our previous readings in similar fields such as organizational communication, digital transformation, and modern information and communication technology helped enhance our understanding of this field. Our personal inclinations and academic aspirations, along with our scientific specialization in "Organizational and Work Sociology" and other related disciplines, played a significant role in guiding our choice of this topic. Furthermore, I am the head of the PRFU project with a group of researchers under the title: Digitization and the Quality of University Education in Algeria. This topic is facing relatively recent challenges related to administrative creativity, especially in Algerian institutions, particularly in the public sector, where its implementation faces many difficulties and obstacles. The availability of diverse and comprehensive academic sources on the topic also enhances the importance of its study.

4. Objectives of Selecting the Topic:

Among the aims and objectives that the researchers seek to achieve through their study of this topic is a general objective aimed at identifying the impact of digitization on activating the administrative innovation process at the Mohamed Boudiaf Hospital in Oum El Bouaghi Province. Sub-objectives aim to identify:

1) Whether the Mohamed Boudiaf Hospital in Oum El Bouaghi Province is capable of effectively implementing digitization.

2) Shed light on the reality of administrative innovation within the Mohamed Boudiaf Hospital in Oum El Bouaghi Province.

3) Identify the most significant difficulties the institution faces when implementing digitization.

4) Investigate the most significant difficulties the institution faces when attempting to achieve a state of administrative innovation.

5) Attempt to shed light on the potential impact of digital skills on administrative effectiveness within the institution.

6) Examine the potential impact of cloud storage on employee collaboration within the institution.

7) Shed light on the potential impact of websites and electronic applications on organizational flexibility within the institution.

5. Field Study Areas:

The field of study is a fundamental point in social research, gaining its importance from the spatial scope in which the study was conducted, the subjects of the research, and the duration of the research, both in terms of time and field. These three areas are addressed as follows:

a. Spatial scope:

This is the spatial scope within which the field study will be conducted, specifically in this field study, the Mohamed Boudiaf Hospital in Oum El Bouaghi Province.

b. Timeframe:

The study began after the researchers had carefully defined both the topic and the problem raised. Therefore, the beginning can be summarized as follows:

The theoretical preparation phase: This phase began in February 2022, focusing on collecting scientific material and preparing the theoretical study chapters.

The field study phase: This study took place from October 2023 to June 2024, in two phases, as follows:

• In the first phase: In October 2023, the researchers began exploratory visits to the services and reception department and the user department. During this period, information related to the field of study was collected. Afterwards, an agreement was made with some employees and department heads to conduct free interviews with them. The study title, the study sample, and the methodology to be followed were determined.

• In the second phase: Several preliminary observations were collected regarding the general atmosphere in the hospital, and the study hypotheses were better defined through the theoretical aspect of the research. During this phase, the research community and the scheduled interview times were determined based on the working hours of employees in each department.

c. Human Resources:

The Mohamed Boudiaf Hospital in Oum El Bouaghi Province has 100 employees.

6. Study Methodology:

A social survey using a sample was used.

7. Sample:

The researchers relied on a social survey using a purposive sample, a descriptive research method, in a questionnaire for administrators in the reception department, the surgery department, and the user department at the Mohamed Boudiaf Hospital in Oum El Bouaghi Province. The research community consisted of 62 administrators and doctors. Thirty-four questionnaires were accepted and (06) questionnaires were rejected.

The following are the main reasons for selecting the sample:

- Availability of the sample in terms of quantity and quality (number, qualifications, etc.).
- The administrator and doctor are considered the foundation of institutional work at the Mohamed Boudiaf Hospital in Oum El Bouaghi Province, through their oversight of tasks such as training, management, organization, and oversight.
- Accuracy and reliability of the data and ease of access to the target individuals.

As for how to choose the sample size that was adopted in the research, the (Sample Size Calculator) method was used. This method allows us to place in the first box the significance level adopted in the study, and the current study relied on the significance level of 0.05, i.e. 0.5%, which is: (sampling error, chance error, or random error) possible in the study, and we also place in the second box the total research community.

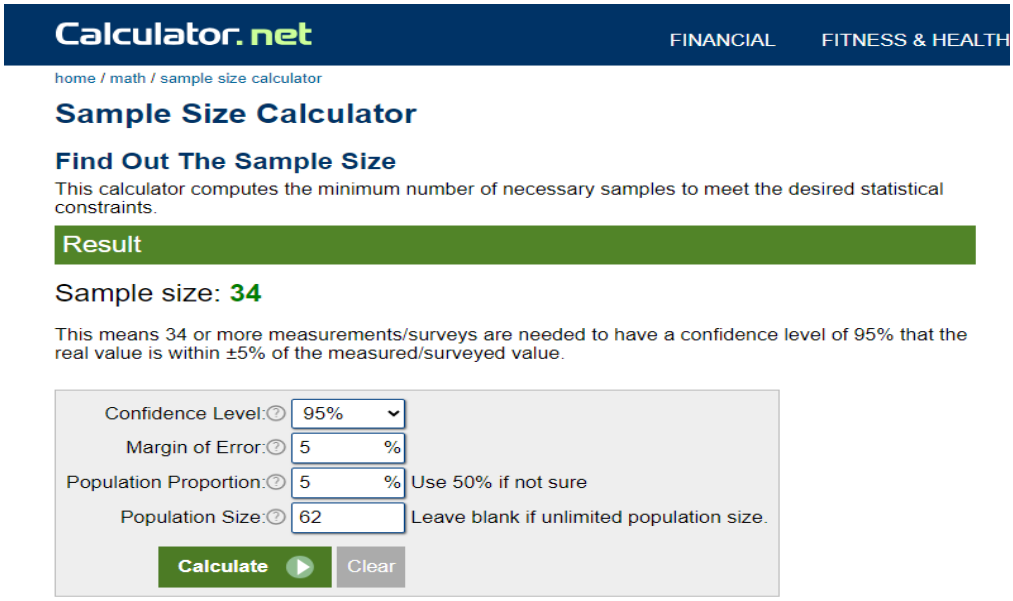


Fig. 1. *Shows the required sample size compared to the total population size at a significance level of 0.05.*

8. Data Collection Tools Used:

Data collection tools are the means used by the researcher to obtain accurate and objective information about the study topic. It is preferable to diversify them to reduce bias and ensure the reliability of the results. The researcher must be proficient in using these tools and ensure their validity.

a. Semi-structured Interview:

This is one of the most accurate methods for collecting information, as the researcher conducts a directed dialogue with specific individuals to obtain data that reflects specific situations or facts. In this study, semi-structured interviews were used with two heads of the organization's departments. These interviews included nine questions drawn from the questionnaire's axes, which were modified based on the supervisor's feedback. The data were analyzed statistically and sociologically.

b. Questionnaire:

The questionnaire tool was used on a sample of 34 respondents.

9. Validity and Reliability Tests:

The researchers verified the validity of the scale by calculating the validity coefficient in two ways, as follows:

a. Apparent Validity Test (Content Validity): Some call it peer validity.

The research instrument (the questionnaire) was presented in its initial form to a group of peers with experience and expertise in the field of sociology, and qualified in the field of research (the subject of the study). They intervened by adding what they deemed appropriate and deleting what was inappropriate, while expressing their desires and suggestions regarding:

• The clarity of the statement;
• The suitability of the statement to the measurement for which it was intended;
• The suitability of the statement to the axis to which it belongs;
• The validity and comprehensiveness of the items.

To measure peer validity, the researchers applied the (La Wshi) equation (Lawshe, 1975, p. 567).

$$CVR = \frac{n_e - (N/2)}{N/2},$$

CVR: The percentage of arbitrators' credibility.

n_e.: The number of arbitrators who agreed (the number of statements agreed upon or that the arbitrators considered to be measuring).

N.: The total number of arbitrators (03).

The arbitrators' credibility calculated in this study was 81.75% and was as follows:

• Digital Transformation Axis 100%
• Cloud Storage Axis 80%
• Websites and Applications Axis 100%
• Administrative Effectiveness Axis 91.97%
• Collaboration Axis 88.89%
• Adaptation Axis 80%

b. Reliability Tests:

This research used a method to measure the reliability coefficient: Cronbach's alpha.

- **Cronbach's alpha method:**

To ensure the reliability of the form, Cronbach's alpha was calculated for each variable.

Table 1. Cronbach's alpha reliability coefficient for the digitization variable.

Reliability Statistics

Cronbach's Alpha	N of Items
,252	30

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Digital Transformation Statement No. 1	91,5294	41,348	0,188	0,206
Digital Transformation Statement No. 2	91,2059	41,684	0,275	0,197
Digital Transformation Statement No. 3	91,7059	47,365	-0,197	0,298
Digital Transformation Statement No. 4	91,8824	38,349	0,415	0,139
Digital Transformation Statement No. 5	92,5000	43,348	0,099	0,235
Digital Transformation Statement No. 6	91,2059	38,229	0,486	0,130
Digital Transformation Statement No. 7	91,2353	40,852	0,274	0,188
Digital Transformation Statement No. 8	92,1765	42,998	0,073	0,240
Digital Transformation Statement No. 9	91,3824	45,758	-0,090	0,285
Digital Transformation Statement No. 10	91,5588	50,436	-0,347	0,361
Cloud Storage Statement No. 1	91,4118	38,189	0,417	0,136
Cloud Storage Statement No. 2	92,5588	47,102	-0,171	0,305
Cloud Storage Statement No. 3	91,3235	38,104	0,523	0,124
Cloud Storage Statement No. 4	91,3824	42,668	0,134	0,225
Cloud Storage Statement No. 5	91,7941	39,562	0,463	0,153
Cloud Storage Statement No. 6	92,2353	55,337	-0,602	0,418
Cloud Storage Statement No. 7	92,5588	47,951	-0,223	0,318
Cloud Storage Statement No. 8	90,9118	38,143	0,485	0,128
Cloud Storage Statement No. 9	91,0000	41,818	0,204	0,207
Websites and Applications Statement No. 1	91,5000	38,803	0,400	0,147
Websites and Applications Statement No. 2	92,0588	52,784	-0,508	0,383
Websites and Applications Statement No. 3	92,8235	48,877	-0,309	0,322
Websites and Applications Statement No. 04	92,7353	48,079	-0,246	0,311
Websites and applications Statement No. 05	92,3529	49,144	-0,293	0,336
Websites and applications Statement No. 06	91,1471	41,523	0,297	0,193
Websites and applications Statement No. 07	91,3824	39,637	0,362	0,163
Websites and applications Statement No. 08	92,5882	45,522	-0,068	0,276
Websites and applications Statement No. 09	92,4118	48,250	-0,259	0,314
Websites and applications Statement No. 10	90,9412	41,330	0,325	0,188
Websites and applications Statement No. 11	90,9412	41,512	0,327	0,191

Table data is derived from SPSS output.24

It is noted from the outputs of the table above that the discrimination coefficient is positive and exceeds 0.20, and therefore there is no sentence that leads to a decrease in the reliability of the scale (test), and thus all items with positive and high discrimination were retained. It became clear that the measurement tool enjoys a medium degree of reliability, as the Cronbach's reliability coefficient for the digitization variable reached 0.252.

Table 2. Cronbach's alpha coefficient for the administrative creativity variable

Reliability Statistics

Cronbach's Alpha	N of Items
,738	30

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Administrative activity Statement No. 01	82,7353	120,261	0,612	0,709
Administrative activity Statement No. 02	81,5882	151,098	-0,583	0,774
Administrative activity Statement No. 03	81,9706	124,211	0,442	0,720
Administrative activity Statement No. 04	82,5294	125,045	0,397	0,722
Administrative activity Statement No. 05	82,3824	122,304	0,413	0,720
Administrative activity Statement No. 06	82,5294	141,832	-0,202	0,762
Administrative activity Statement No. 07	81,9706	125,666	0,420	0,722
Administrative activity Statement No. 08	82,2941	121,608	0,521	0,714
Administrative activity Statement No. 09	82,6765	123,256	0,501	0,716
Administrative activity Statement No. 10	82,7941	122,896	0,492	0,716
Administrative activity Statement No. 11	82,5294	134,075	0,089	0,740
Administrative activity Statement No. 12	82,0882	119,295	0,604	0,708
Cooperation Statement No. 01	82,4412	123,406	0,509	0,716
Cooperation Statement No. 02	82,2941	126,699	0,301	0,728
Cooperation Statement No. 03	82,4118	123,462	0,482	0,717
Cooperation Statement No. 04	81,9412	147,269	-0,394	0,770
Cooperation Statement No. 05	81,9706	148,635	-0,552	0,768
Cooperation Statement No. 06	82,5588	125,284	0,420	0,721
Cooperation Statement No. 07	82,5000	125,652	0,386	0,723
Cooperation Statement No. 08	82,4118	123,825	0,454	0,719
Adaptation Statement No. 01	82,5588	118,193	0,610	0,706
Adaptation Statement No. 02	82,0294	144,757	-0,299	0,766
Adaptation Statement No. 03	82,6765	123,256	0,609	0,713
Adaptation Statement No. 04	81,2941	147,123	-0,565	0,763
Adaptation Statement No. 05	82,4706	127,772	0,324	0,727
Adaptation Statement No. 06	81,3529	146,478	-0,398	0,766
Adaptation Statement No. 07	82,7941	120,229	0,652	0,708
Adaptation Statement No. 08	82,7059	121,850	0,531	0,714
Adaptation Statement No. 09	82,7059	128,578	0,367	0,726
Adaptation Statement No. 10	82,9118	126,325	0,458	0,721

Table data is derived from SPSS output.24

It is noted from the table above that the discrimination coefficient for all the sentences was positive and above 0.20, and therefore there is no sentence that would lead to a decrease in the reliability of the scale (test), and thus all the items with positive and high discrimination were retained. It was found that the measurement tool enjoys a high degree of reliability, as the Cronbach's coefficient of reliability for the administrative creativity variable reached 0.738. That is, the adopted questionnaire is suitable for scientific research.

10.Statistical Methods for Data Processing:

The researchers used the Statistical Package for the Social Sciences (SPSS20) for purposes such as:

- Calculating frequencies, percentages, frequency columns, circles, and bar graphs.
- Extracting measures of central tendency and measures of dispersion to understand the quantitative nature and distribution of the data and the extent of its concentration.
- In addition, the researchers used arithmetic means and paired tables to calculate the estimates of the research population members, as well as the standard deviation to determine the degree of dispersion in the respondents' answers.
- In addition, they used Cronbach's alpha coefficient and the total partition coefficient to calculate the degree of reliability of the questionnaire's axes and paragraphs.
- The researchers also used the Pearson correlation coefficient to test the study's hypotheses, in addition to using statistical tests such as t-tests, the R-square test, and the Pearson correlation coefficient to determine the internal consistency of the measurement tools (Hafiane & Khammar, 2025, p.13).

- **Second: Digitization**

1. The definition of digitization:

a. Linguistically:

−"Number" refers to digitization, clarification, writing, pen, and handwriting.

−Number and punctuation: digitizing a book and numbering it.

−A book is numbered, meaning its letters are marked with their punctuation marks.

−A numbered pen: a pen marked with a scribbled outline. A numbered garment is numbered with a number, and its number is its plan.

b. Technically:

- A digital reproduction process that enables the conversion of a document, regardless of its type or medium, into a digital series using specialized electronic means, software, and applications, whether paid or free.

- This technical work is accompanied by intellectual and office work to organize the information in the form of indexing, scheduling, processing, and representation of the content of the digitized text.

c. Multiple Concepts of Digitization:

Digitization has numerous definitions that vary depending on the orientations, opinions, theoretical and intellectual premises, and ideology of each researcher and their scientific and academic specialization. We find definitions that can be presented as follows:

Some define it as the process of converting information sources:

"Digitization is the process of converting information sources from their traditional form (such as paper books) to a digital form (such as e-books) with the aim of providing the greatest possible number of information sources to users with greater ease" (Hamdo, 2022, p. 7).

Comment: This definition is simple and straightforward, but it does not refer to the technologies used in the conversion process or to the other benefits of digitization.

While Terry Canny defined it as:

"Digitization is the process of converting information sources (such as books and images) into a form that can be read by computers using the binary system (0s and 1s)" (Ahmed Yassin, 2013, p. 20).

Comment: This definition is more precise than the first one, as it refers to the technologies used in the conversion process. However, it does not mention the other benefits of digitization.

Charlotte Percy considered it as:

"Digitization is a method for converting data and information from an analog form (such as sound) to a digital form (such as audio files)" (Hamdo, 2022, p. 8).

Comment: This definition is similar to Terry Canny's, but it refers to the conversion of data and information in general, not just information sources.

According to Boumarafi and Maliki, digitization is the process of transforming from the paper form that organizational actors perceive through their senses to the digital form, which actors understand through the computer (Oukkaf & Khammar, 2024, p.430).

While Doug Hodgson defined it as:

"Digitization is the conversion of intellectual content (such as books and manuscripts) into a digital form using specialized techniques and devices" (Hamdo, 2022, p. 9).

Comment: This definition refers to the type of content being converted (intellectual content) and explains that the conversion process requires specialized techniques and equipment.

Digitization can be said to be the process of converting paper data into digital data whose content can be viewed through computers.

It is a set of advanced technologies and means, with a digital dimension used in the process of transferring scientific knowledge through various media, including media and communication techniques that serve to store scientific knowledge as well as transfer it from one place to another in addition to e-learning platforms.(Boutarfa & Khammar, 2024, p.5).

The Library and Information Dictionary online defines it as: "Digitization is the conversion of data (such as text and images) into a digital form using scanning devices, allowing them to be displayed on computer screens" (Faraj, 2009, p. 11). Comment: This definition refers to the type of data being converted (text and images) and explains that the conversion process requires scanning devices.

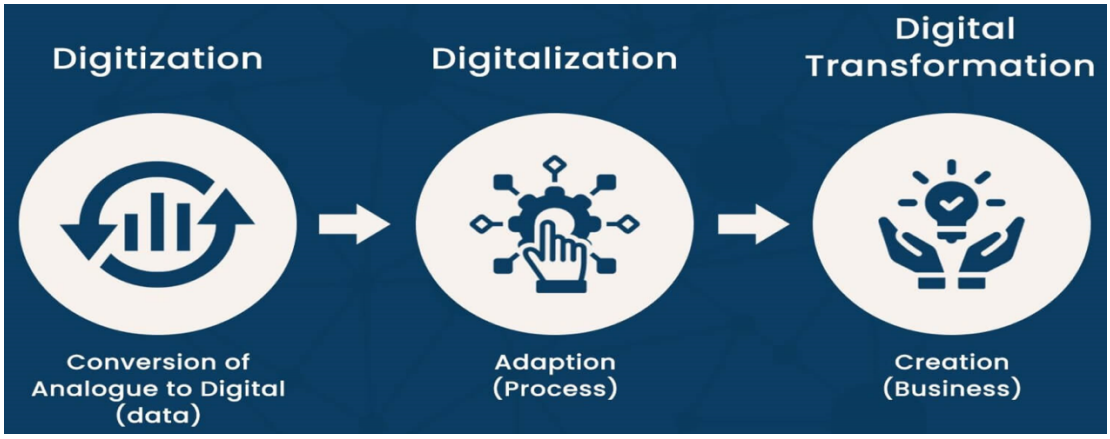


Fig. 2. *Represents the digital transformation of digitization.*
Source: Digitization vs. Digital Transformation PlumlogixInc

2. The Significance (importance) of Digitization:

- Bridging the Gap Between Management and Employees: Digitization facilitates communication between management and employees and enhances transparency.

- Restructuring Roles and Functions: Digitization enables the redefinition of roles and functions to ensure consultative decision-making.

- Institutions' Reliance on Electronic Services: Digitization enables the use of new working methods and the elimination of complexity in administrative work.

- Enhancing Communication with Citizens: Digitization contributes to enhancing communication with citizens and providing them with better services.

- Reducing the Documents Required to Access Public Services: Digitization contributes to reducing the number of documents required to access public services.

- Improving the Quality of Public Services: Digitization contributes to improving the quality of public services and reducing bureaucracy.

- Speeding Up Administrative Transactions: Digitization contributes to accelerating the completion of administrative transactions and the electronic delivery of public services.

- Administrative Modernization: Digitization is a fundamental element of the administrative modernization system, especially in the field of local authorities. - Meeting community needs: Digitization contributes to meeting community needs and providing the best public service (Sadiqi, 2021, p. 121).

3. Characteristics of Digitization:

- Reducing Time: Digitization enables tasks and processes to be completed much faster than traditional methods.

For example: The ability to complete administrative transactions online instead of waiting in long lines.

- Reducing Distances: Digitization enables communication and interaction with others regardless of their geographical location.

For example: The ability to communicate with family and friends online, even if they are in another country.

- Sharing Intellectual Tasks with Machines: Digitization has helped accomplish complex intellectual tasks through the use of artificial intelligence technologies.

For example: Using machine translation software to translate texts from one language to another.

- Establishing Communication Networks: Digitization enables the interconnection of various devices and systems to form broad networks.

For example: The Internet, which connects billions of devices around the world.

- Interactivity: Digitization enables direct interaction and communication between people, whether through voice, image, or text, to exchange knowledge, experiences, and expertise, and to build, strengthen, or sever ties and relationships, whether professional, social, or human.

For example: Using social media platforms such as Facebook and Twitter to communicate with others.

- Asynchronism: Digitization allows information to be sent and received at any time that suits the user and meets their needs.

Example: The ability to send emails at any time, even if the recipient is offline.

- Decentralization: Digitization allows access to services and information without the need for a permanent central control center by creating miniature data centers.

Example: The ability to access information through websites and online applications without having to pass through a central server.

- **Connectivity:** Digitization allows various devices and systems to be linked together, regardless of their type, source, storage space, or technical power (Moghaddam, 2005, pp. 83-84).

Example: The ability to connect your smartphone to your computer.

4. Forms of Digitization:

Digitization appears in many different forms and shapes, which can be summarized as follows:

- Digitization in image form:

- Converts images into digital data. Examples include:
- Scanning photographs, documents, and drawings.
- Converting films into digital format.
- Using image editing software to enhance images.

- Digitization in text form:

- Converts text into digital data. Examples include:
- Scanning books, magazines, and documents.
- Using optical character recognition (OCR) software to convert scanned text into editable text.
- Using word processing software to write and edit text.

- Digitization in directional form:

This process converts histograms, shapes, columns, circles, and graphs into digital data that can be processed statistically. Examples include:

- Using computer graphics programs to create shapes and graphs.
- Converting drawings and graphics to SVG or EPS format.
- Using 3D printing programs to create 3D models from drawings and graphics (Mahri, 2005, pp. 83-84).

5. Digitization Tools:

To successfully complete the digitization process, we need a set of basic tools, including:

1- Network and Communications Software:

- Operating Systems: Unix provides a robust and reliable environment for running data servers and computers used in the digitization process.
- Network Management Software: facilitates the connection of computers and the exchange of data between them, ensuring network security.

2-Document Scanning Software:

Micro Isis/CDS: a system dedicated to scanning and indexing paper documents and creating digital databases for them.

US Marc AMC: a system compliant with international MARC standards, used for indexing electronic documents.

3- Archival Work Automation Software:

- Digital File Management Software: helps organize and store digital files efficiently, facilitating their search and retrieval.

- Database Management Software: used to create searchable databases that enable the systematic organization of digitized information.

4- Optical Character Recognition (OCR) Software:

OCR system: Used to convert captured images of paper documents into readable and editable text.

5- Word Processing Software:

Microsoft Office Suite: Provides a set of tools for word processing and creating reports and presentations.

6- Content Management Software:

Content Management Systems (CMS): Enable the creation, management, and easy updating of rich multimedia web content.

7- File Compression Software:

MP3: Used to compress audio files and reduce their size without compromising their quality.

DivX: Used to compress video files and reduce their size without compromising their quality.

WINRAR: Used to compress any type of file and reduce its size without compromising its quality (Khalis, 2013, p. 446).

Fourth: dministrative Creativity:

1. Definition of Administrative Creativity:

Management creativity has been defined in many ways, depending on the perspectives of researchers. Below, we review some definitions of administrative creativity:

Administrative creativity is defined as:

"The management of activities and processes of generating ideas, technological development, and marketing new products and services." (Quadria, 2019, pp. 4-3).

It is also defined as:

"The initiative demonstrated by an employee or manager through his or her ability to deviate from the normal or traditional sequence of thinking."

It is also defined as:

"A unique intellectual process that combines brilliant knowledge and creative work, touching on various areas of life, dealing with reality, and striving for the best. Furthermore, creativity results from the interaction of subjective or objective variables, personal, environmental, or behavioral, led by distinguished individuals."

It is also defined as:

"A change in administrative work that leads to improved procedures for organizational methods that lead to the production and delivery of the product" (Quadria, 2019, pp. 4-3).

From the above definitions, we conclude that administrative innovation is:

An important type of innovation that includes changes in organizational structure, job design, new corporate policies and strategies, advanced control systems, and more.

2. The Importance of Innovation:

Researchers McDaniel and Bruce emphasize that innovation applied using modern technology achieves four main goals:

Increasing profitability:

It improves operational efficiency, reduces costs, and opens up new opportunities to increase sales and expand market share.

Improving production:

It reduces product delivery time, improves product quality, contributes to lower prices, and increases the value provided to customers.

Reducing control and business monitoring costs: This means enabling the use of intelligent systems that efficiently monitor and analyze data, reducing reliance on manual labor, and improving work accuracy.

Reducing storage costs: It enables the use of advanced supply chain management systems, improving storage and transportation efficiency, and reducing waste (Shenaf, 2017, pp. 77-78).

3. Purposes of Administrative Creativity:

Administrative creativity shines like a sun that illuminates the path of organizations, inspiring them toward progress and prosperity. Its importance lies in the following points:

- Responding to Change: Creativity enables an organization to effectively absorb its environment, helps confront challenges, and seize new opportunities. It maintains the organization's stability and prosperity in the long term.

- Improving Services: Creativity enriches an organization's services and adds value. It also meets customer needs in an innovative way, improves customer satisfaction, enhances the organization's competitiveness, and contributes to achieving its strategic objectives.

- Capacity Development: Creativity encourages the use of employees' intellectual and mental capabilities, providing them with opportunities to test their skills and discover their potential. At the same time, it contributes to developing a culture of innovation and excellence within the organization (Akroush, 2004, pp. 5-6).

- Optimal Utilization of Resources: Creativity enables the efficient use of financial resources, helps reduce costs, maximizes available resources, and enhances the organization's ability to adapt to changing circumstances.

- Program Balance: Creativity leads to a balance between various development programs and helps distribute resources fairly and equitably. Furthermore, it contributes to effectively achieving the organization's strategic objectives.

- Utilizing Human Capabilities: Creativity stimulates the optimal utilization of human resource capabilities, encourages the exploration of new ideas and the modernization of work systems, and contributes to increasing productivity and improving service quality. (Muslim, 2010, p. 19)

Examples:

3M: A prominent example of an innovative organization, producing more than 60,000 innovative products.

Apple: Astounds the world with its continuous innovations in electronics.

Toyota: Provides innovative solutions in the automotive industry.

4. Stages of the Administrative Creativity Process:

Administrative creativity is a multi-stage journey, each of which contributes to the crystallization of the creative idea and its transformation into a tangible reality. These stages are as follows:

1. Interest (readiness):

- It is the individual's innate inclination toward a specific topic, motivating them to continually research and explore it.

- Interest is the seed of creativity, directing the individual toward specific fields and motivating them to acquire relevant knowledge and experience.

2. Preparation (preparation):

- This stage includes gathering information and building knowledge about the topic to be creative.

- The creative individual searches for various sources and analyzes and evaluates information with the aim of better understanding the problem or challenge (Aseel, 2009, p. 33).

3. Incubation (incubation):

This stage passes through the subconscious period, where the individual moves away from directly focusing on the problem and allows new ideas to form and crystallize. During the incubation period, the subconscious mind reprocesses the information, and some initial ideas may emerge suddenly.

4. Inspiration:

At some point, a new and enlightening idea suddenly emerges, serving as a creative solution to a problem.

Inspiration represents the moment of clarity when the individual realizes the solution and is able to formulate and define its features.

5. Validation:

Creative ideas must be tested and evaluated to ensure their feasibility and applicability.

The creative individual studies innovative solutions and assesses their success in achieving the desired goals. They may modify or develop them before presenting them in their final form (Bohaza, 2019, p. 9).

5. Components of Administrative Creativity:

Some key elements of administrative creativity:

1. Creative thinking skills: These skills include the ability to think outside the box, generate innovative and diverse ideas, and solve problems effectively.

- Experience: Experience is an important factor that allows administrative leaders to arrive at innovative solutions, thanks to the accumulation of knowledge and skills acquired over time.

- Motivation: Creativity requires a strong leadership style, driven by a strong desire to find ideal solutions to problems and achieve desired goals. In addition to the elements mentioned above, the components of administrative creativity can be further detailed as follows:

2. Personality traits: These are a set of characteristics that a person acquires instinctively or from their social environment and are represented as follows:

- Open personality: A creative leader is characterized by a personality that is open to new ideas, adaptable to change, and willing to explore new horizons.

- Perseverance: A creative leader does not give up easily in the face of challenges, but rather makes a continuous effort to achieve innovative solutions.

- Self-confidence: A creative leader believes in their abilities and potential, and has great confidence in themselves and their ability to succeed.

- Adventurous spirit: A creative leader is not afraid to take risks, but rather seeks to experiment with new and unconventional ideas. .2 Cognitive Skills:

- Problem-solving skills: A creative leader has a strong ability to analyze problems, identify their causes, and generate innovative and effective solutions.

- Communication skills: A creative leader is able to communicate effectively with others, explain their ideas and vision, and motivate them to participate in the creative process.

- Leadership skills: A creative leader is able to lead and direct their team toward achieving desired goals and create a positive work environment that encourages creativity.

3. Supportive environment:

- An organizational culture that supports creativity: The organization's culture encourages creative thinking, rewards employees for their innovative ideas, and provides them with opportunities to experiment with new ideas.

- Providing the necessary resources: The organization provides the necessary resources to support the creativity process, such as time, money, and the necessary tools. Tolerance for failure: The organization encourages learning from mistakes and gives employees the opportunity to learn from their failed experiences (Jaroun, 2022, p. 25).

Consequently, researchers conclude that administrative creativity is essential to the success of any organization, requiring a combination of personal traits, cognitive skills, and a supportive environment.

The reasons why managerial creativity is important for organizations are as follows:

1. The need for innovative management systems and procedures: The changing conditions organizations face daily require innovative solutions tailored to their specific needs, rather than relying on systems copied from others.

2. The importance of a creative personality: A leader's creative personality plays an important role in distinguishing the organization, providing distinguished services, and increasing its efficiency and productivity.

3. Developing and modernizing organizations: Administrative creativity contributes to the development and modernization of governmental and non-governmental organizations by providing them with modern methods and strengthening their ability to adapt to change.

4. Keeping pace with global developments: Administrative creativity is essential to keep pace with global developments in various fields, excel in the face of globalization, and strive for market leadership.

5. Responding to the technological revolution: Rapid technological advances require organizations to keep pace with these developments, provide innovative products and services, and develop production methods, which requires administrative and technical creativity (Al-Karghi, 2022, p. 25).

Examples of reasons:

1- The need for innovative administrative systems and procedures:

Example: Netflix developed an innovative monthly subscription system for its movie and TV streaming service, rather than relying on the traditional movie rental system, which led to its enormous success and dominance in the digital content streaming market.

2- The importance of creative personality:

Example: Steve Jobs, the founder of Apple, led a technological revolution with his innovative ideas and distinctive designs, making Apple one of the most valuable companies in the world.

3- Developing and modernizing organizations:

Example: The UAE government has developed innovative initiatives such as the Emirates Talent Program and the Khalifa Artificial Intelligence Program to develop the capabilities of young people and promote innovation in various fields.

4- Keeping pace with global developments:

Example: The Chinese company Alibaba developed an innovative electronic payment system called Alipay, which has become one of the most popular electronic payment systems in the world, to keep pace with global developments in e-commerce.

5- Responding to the technological revolution:

Example: Tesla developed autonomous electric cars to enable it to respond to the technological revolution in the automotive industry.

6. Factors Contributing to Administrative Creativity:

Administrative creativity is an important element for the success of any organization, as it allows for the development of new solutions to problems, improved performance, and enhanced competitiveness. Administrative creativity depends on a combination of factors, some internal and related to the individual, and others external and related to the environment.

(1) Internal Factors:

- Motivation: The individual's sense of importance and their motivation to work creatively.
- Skills: The individual's representation of the skills and abilities necessary for creative thinking.
- Self-confidence: An individual's sense of confidence in their ability to accomplish creative tasks.
- Resilience: The ability to take risks and cope with failure.

(2 External Factors:

- Supportive Environment: Providing a positive work environment that encourages creativity.
- Resources: Providing the resources necessary for creative work, such as time, money, and tools.
- Leadership: Having leadership that supports creativity and encourages outside-the-box thinking.
- Organizational Culture: A culture that values creativity and innovation.
- Evaluation and Reward: Evaluating and appreciating creative ideas and rewarding their owners (Jaluli, 2013, p. 71).

7. Types of Administrative Creativity:

Administrative creativity is an important element for the success of any organization, as it allows for the development of new solutions to problems, improved performance, and enhanced competitiveness. Administrative creativity can be classified into three main types:

(1) Administrative Creativity at the Individual Level:

Definition: This is creativity achieved by individuals with creative abilities and characteristics.

Characteristics of the Creator:

- Knowledge: by devoting a lot of time to mastering the work.
- Education: An education that emphasizes logic.
- Intelligence: Not necessarily high, but having the ability to think and form flexible relationships between things.
- Personality: Willingness to take risks, independence, perseverance, motivation, openness to new ideas, and a strong sense of humor.
- Childhood: Characterized by diversity and confronted with family turmoil and difficult economic conditions. Interaction: Exchanging opinions with others and not withdrawing.

(2) Administrative creativity at the group level:

Definition: This is creativity that is realized or achieved by the group (department, service, committees, etc.).

Its characteristics:

- Exceeds the sum of the individual creativity of the members.
- Result of their interaction, their exchange of opinions and experiences, and their mutual assistance.
- Enables organizations to face major challenges.

(3) Administrative creativity at the organizational level:

Its importance: Its importance lies in the fact that it is not a luxury, but rather a necessity for survival and prosperity, and the organization must make it its working method and daily practice (Al-Qadi, 2015, pp. 80-81).

Fifth: Field (applied) aspect

1. Study of demographic data for the study

Table 3. Primary data (demographic) of the research sample.

Statistics

		Gender	Age	Educational Level	Career Level	Experience
N	Valid	34	34	34	34	34
	Missing	0	0	0	0	0
Mean		1,6176	2,4412	3,7647	4,4118	3,5588
Median		2,0000	2,0000	4,0000	5,0000	3,0000
Mode		2,00	2,00	3,00[a]	5,00	2,00
Std. Deviation		,49327	,82356	,81868	1,95584	1,81227
Sum		55,00	83,00	128,00	150,00	121,00

a. Multiple modes exist. The smallest value is shown

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	13	38,2	38,2	38,2
	Female	21	61,8	61,8	100,0
	Total	34	100,0	100,0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Under 30 years old	3	8,8	8,8	8,8
	30-40 years old	17	50,0	50,0	58,8
	40-50 years old	10	29,4	29,4	88,2
	50-60 years old	4	11,8	11,8	100,0
	Total	34	100,0	100,0	

Educational Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	middle	1	2,9	2,9	2,9
	secondary	13	38,2	38,2	41,2
	university	13	38,2	38,2	79,4
	Vocational training	7	20,6	20,6	100,0
	Total	34	100,0	100,0	

Career Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Administrative Assistant	1	2,9	2,9	2,9
	attached	7	20,6	20,6	23,5
	Administrative officer	6	17,6	17,6	41,2
	Computer engineer	1	2,9	2,9	44,1
	Senior IT Technician	9	26,5	26,5	70,6
	Doctor	2	5,9	5,9	76,5
	Head of Service	8	23,5	23,5	100,0
	Total	34	100,0	100,0	

Experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 05 years	4	11,8	11,8	11,8
	From 05-10 years	9	26,5	26,5	38,2
	From 10-15 years	6	17,6	17,6	55,9
	From 15-20 years	2	5,9	5,9	61,8
	From 20-25 years	5	14,7	14,7	76,5
	25 years and above	8	23,5	23,5	100,0
	Total	34	100,0	100,0	

Table data is derived from SPSS output.24

The tables above reflect the distribution of the research population by gender. The results show a higher percentage of females than males, with females comprising 61.8% of the total sample, a high percentage compared to males, which did not exceed 38.2%.

This difference is also evident in the calculated gender mean, which was 1.6176, close to (2), indicating a predominance of females. The mean, with a standard deviation of 0.49327, is less than one, indicating that the data is not dispersed and is centered around the mean.

It is likely that this large disparity in the distribution of respondents by gender is due to the nature of their specializations or the tendency of males to join the labor market early, particularly through security and military institutions such as police schools, the army, and other regular institutions. This reduces their presence in these types of studies or university specializations.

In addition to migration, whether legal or illegal, which many young people see as a means of escaping to better living conditions, there is also a noticeable increase in the proportion of women. This can be explained by several factors. Most notably, women's growing awareness of the importance of working to achieve financial independence and meet their needs, whether material or moral. This phenomenon may also be attributed to other reasons that remain unclear to researchers.

Regarding the age variable, the data showed that the percentage of participants under the age of 30 was 8.8%. The age group from 30 to less than 40 years constituted the largest percentage, at 50.0%. The percentage of those between 40 and 50 years old was approximately 29.4%, and the age group between 50 and 60 years old recorded 11.8%. Based on these data, it can be concluded that the majority of respondents belong to the youth category, which may be attributed to several factors, including their job satisfaction, their willingness to accept the work environment, and their ability to interact positively with modern technology compared to other age groups. Their desire to work is also often high, especially since they are new to the organization.

Regarding job level, the data indicate that the majority of the research sample belonged to the "Senior IT Technician" category, representing 26.5% of the total, the highest percentage compared to other job categories.

The remaining percentages were distributed as follows:

- Administrative Assistant (2.9%),
- Administrative Attaché (20.6%),
- Administrative Manager (17.6%),
- IT Engineer (2.9%),
- Doctor (5.9%),
- Department Head (23.5%).

Based on these data, it can be said that IT dominates the other specializations within the study sample. This is likely due to a specific historical context, as the majority preferred to enroll in institutes, given the ease of obtaining a certificate that would enable them to quickly enter the job market, compared to lengthy university courses.

Regarding educational level, the data indicate that 38.2% of the sample holds a university degree, while only 2.9% hold a secondary school certificate, and 20.6% of the sample holds vocational training certificates.

Through these figures, it is clear that the Mohamed Boudiaf Foundation places great importance on employing qualified human resources with the necessary competencies and skills to fill its positions. This is evident in the percentage of university graduates and training institute graduates. A correlation can also be observed between educational level and job level within the organization.

Regarding years of experience, the results showed that:

- 11.8% of the respondents had less than 5 years of experience,
- 26.5% had between 5 and 10 years of experience,
- 17.6% had between 10 and 15 years of experience,
- 5.9% had between 15 and 20 years of experience,
- 23.5% had over 25 years of experience. Based on this data, it can be concluded that the predominant group within the organization is young, with members between the ages of 30 and 35. This group combines youthfulness with average professional experience, which contributes to the organization's renewal and dynamism.

2. Level of Digitization Use:

To test the level of digitization use within the Mohamed Boudiaf Hospital, a descriptive statistical analysis of the data was conducted using two methods:

- The result positive method:

The researchers extracted the overall result from the total responses of the respondents, dividing the results into two categories:

- The negative result category (-), meaning there is a weak degree of digital transformation.
- The positive result category (+), meaning there is a high degree of digital transformation.

The researchers relied on the following method:

Minimum = 34 x 0.1 = 34

Upper limit = 34 x 0.5 = 170

Category length = (Upper limit - Lower limit) ÷ 2

Category length = (170 - 34) ÷ 2 = 68

Half of the category = 34 + 68 = 102

- The category that falls between [34 and 102] has a negative result (low level of digitization use).

-The category that falls between [102 to 170] has a positive result (high level of digitization use).

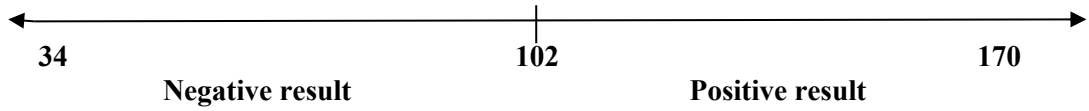


Table 4. The result of using digitization (digital transformation) among the sample of employees at Mohamed Boudiaf Hospital, Oum El Bouaghi, according to the total repetitions.

Descriptive Statistics					
	N	Sum	Mean	Std. Deviation	Result
Digital Transformation Statement No. 1	34	115,00	3,38	1,21	+
Digital Transformation Statement No. 2	34	126,00	3,71	0,91	+
Digital Transformation Statement No. 3	34	109,00	3,21	0,91	+
Digital Transformation Statement No. 4	34	103,00	3,03	1,17	+
Digital Transformation Statement No. 5	34	82,00	2,41	1,02	-
Digital Transformation Statement No. 6	34	126,00	3,71	1,06	+
Digital Transformation Statement No. 7	34	125,00	3,68	1,07	+
Digital Transformation Statement No. 8	34	93,00	2,74	1,24	-
Digital Transformation Statement No. 9	34	120,00	3,53	1,19	+
Digital Transformation Statement No. 10	34	114,00	3,35	1,30	+
Cloud Storage Statement No. 1	34	119,00	3,50	1,19	+
Cloud Storage Statement No. 2	34	80,00	2,35	1,15	-
Cloud Storage Statement No. 3	34	122,00	3,59	1,02	+
Cloud Storage Statement No. 4	34	120,00	3,53	1,08	+
Cloud Storage Statement No. 5	34	106,00	3,12	0,91	+
Cloud Storage Statement No. 6	34	91,00	2,68	1,25	-
Cloud Storage Statement No. 7	34	80,00	2,35	1,15	-
Cloud Storage Statement No. 8	34	136,00	4,00	1,07	+
Cloud Storage Statement No. 9	34	133,00	3,91	1,06	+
Websites and Applications Statement No. 1	34	116,00	3,41	1,13	+
Websites and Applications Statement No. 2	34	97,00	2,85	1,13	-
Websites and Applications Statement No. 3	34	71,00	2,09	0,93	-
Websites and Applications Statement No. 4	34	74,00	2,18	0,97	-
Websites and applications Statement No. 5	34	87,00	2,56	1,16	-
Websites and applications Statement No. 6	34	128,00	3,76	0,89	+
Websites and applications Statement No. 7	34	120,00	3,53	1,08	+
Websites and applications Statement No. 8	34	79,00	2,32	1,09	-
Websites and applications Statement No. 9	34	85,00	2,50	0,96	-
Websites and applications Statement No. 10	34	135,00	3,97	0,87	+
Websites and applications Statement No. 11	34	135,00	3,97	0,83	+
Valid N (listwise)	34				
Sum/30		**107,57**	**3,16**	**1,07**	**+**

Table data is derived from SPSS output.24

It is noted from Table No. (03): The result is positive for most of the phrases of the first axis of the questionnaire, and this confirms that there is a high use of digitization among the employees of the Mohamed Boudiaf Foundation, Oum El Bouaghi city. This is confirmed by the arithmetic mean result of 03.16.

3. Level of Administrative Creativity:

To test the level of administrative creativity among employees at Mohamed Boudiaf Hospital in Oum El Bouaghi Province, a descriptive statistical analysis of the data was conducted using two methods:

- The result positive method:

The researchers extracted the overall score from the total responses of the respondents, dividing the results into two categories:

- The negative score category (-), meaning there is a weak degree of administrative creativity.
- The positive score category (+), meaning there is a high degree of administrative creativity.

The researchers relied on the following method:

Minimum = 34 x 0.1 = 34

Upper score = 34 x 0.5 = 170

Category length = (Upper score - Lower score) ÷ 2

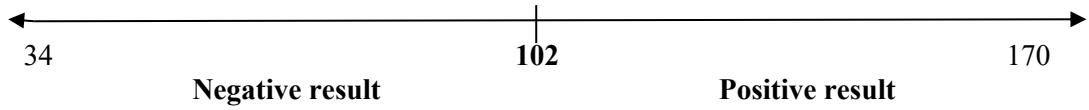
Category length = (170 - 34) ÷ 2 = 68

Half of the category = 34 + 68 = 102

- The category between [34 and 102] has a negative score (a weak level of administrative creativity).

The category that falls between [102 and 170] is considered positive (high level of administrative creativity).

The researchers considered that any respondent who received a score greater than or equal to 102 indicated that employees at Mohamed Boudiaf Hospital possess high levels of administrative creativity, as the following table illustrates.



It is noted from Table 5 that the overall result is negative for the statements in the second axis of the questionnaire, which confirms that there is a weak degree of administrative creativity among the employees of the Mohamed Boudiaf Foundation in Oum El Bouaghi Province. This is confirmed by the arithmetic mean result of 02.84.

Research Hypothesis Testing:

Given that the data follow a normal distribution, to determine the relationship between the study variables, a linear regression test (RLT) will be used. From this, the coefficient of determination (R Square) and the t-test (t) were calculated.

Table 5. The result of using administrative creativity among the sample of employees at Mohamed Boudiaf Hospital, Oum El Bouaghi, according to the total repetitions.

Descriptive Statistics					
	N	Sum	Mean	Std. Deviation	Result
Administrative activity Statement No. 01	34	83,00	2,44	1,16	-
Administrative activity Statement No. 02	34	122,00	3,59	1,05	+
Administrative activity Statement No. 03	34	109,00	3,21	1,17	+
Administrative activity Statement No. 04	34	90,00	2,65	1,20	-
Administrative activity Statement No. 05	34	95,00	2,79	1,41	-
Administrative activity Statement No. 06	34	90,00	2,65	1,35	-
Administrative activity Statement No. 07	34	109,00	3,21	1,09	+
Administrative activity Statement No. 08	34	98,00	2,88	1,23	-
Administrative activity Statement No. 09	34	85,00	2,50	1,13	-
Administrative activity Statement No. 10	34	81,00	2,38	1,18	-
Administrative activity Statement No. 11	34	90,00	2,65	1,01	-
Administrative activity Statement No. 12	34	105,00	3,09	1,24	+
Cooperation Statement No. 01	34	93,00	2,74	1,11	-
Cooperation Statement No. 02	34	98,00	2,88	1,30	-
Cooperation Statement No. 03	34	94,00	2,76	1,16	-
Cooperation Statement No. 04	34	110,00	3,24	1,21	+
Cooperation Statement No. 05	34	109,00	3,21	0,91	+
Cooperation Statement No. 06	34	89,00	2,62	1,13	-
Cooperation Statement No. 07	34	91,00	2,68	1,17	-
Cooperation Statement No. 08	34	94,00	2,76	1,18	-
Adaptation Statement No. 01	34	89,00	2,62	1,30	-
Adaptation Statement No. 02	34	107,00	3,15	1,28	+
Adaptation Statement No. 03	34	85,00	2,50	0,96	-
Adaptation Statement No. 04	34	132,00	3,88	0,77	+
Adaptation Statement No. 05	34	92,00	2,71	1,12	-
Adaptation Statement No. 06	34	130,00	3,82	1,09	+
Adaptation Statement No. 07	34	81,00	2,38	1,10	-
Adaptation Statement No. 08	34	84,00	2,47	1,19	-
Adaptation Statement No. 09	34	84,00	2,47	0,93	-
Adaptation Statement No. 10	34	77,00	2,26	0,96	-
Valid N (listwise)	34				
Sum/30		**96,53**	**2,84**	**1,14**	-

Table data is derived from SPSS output.24

Table 6. Binary correlation coefficient between the digitization variable and administrative creativity

Correlations			
		Mean of the digitization variable	Mean of the administrative creativity variable
Mean of the digitization variable	Pearson Correlation	1	-,499**
	Sig. (2-tailed)		0,003
	N	34	34
Mean of the administrative creativity variable	Pearson Correlation	-,499**	1
	Sig. (2-tailed)	0,003	
	N	34	34
**. Correlation is significant at the 0.01 level (2-tailed).			

Table data is derived from SPSS output.24

From the results of the previous table, it is concluded that the correlation coefficient between the average digitization and the average administrative creativity was -0.499*, a negative value indicating an inverse relationship between the two variables. The significance level was 0.003, which is lower than the approved level of 0.05, indicating a statistically significant relationship between the digitization variable and the administrative creativity variable within the Mohamed Boudiaf Hospital.

Based on this level of statistical significance (Sig < 0.05), the null hypothesis was rejected and the alternative hypothesis was accepted. This hypothesis states that there is a statistically significant effect between the digitization variable and administrative creativity. The negative direction of the relationship indicates that digitization negatively affects administrative creativity.

After calculating the binary correlation coefficient, the researchers sought to verify the significance of this coefficient. To do so, the Pearson's binary correlation coefficient distribution was transformed into a t-distribution to test the hypotheses using a t-test.

Since the data follow a normal distribution, in order to know the effect between the study variables, the linear regression test will be used, from which both the coefficient of determination (R Square) and the t-tests were calculated**.**

Table 7. Shows the linear regression equation between digitization and administrative creativity.

Model Summary					
R	R Square	Adjusted R Square	Std. Error of the Estimate		
0,499	0,249	0,226	0,344		
The independent variable is Mean of the digitization					
ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	1,253	1	1,253	10,618	0,003
Residual	3,777	32	0,118		
Total	5,030	33			
The independent variable is Mean of the digitization variable.					
Coefficients					
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
Mean of the digitization variable	-0,865	0,265	-0,499	-3,259	0,003
(Constant)	5,575	0,842		6,624	0,000

The study results showed a statistically significant effect between the digitization variable and the administrative creativity variable within the hospital institution. The value of the binary correlation coefficient was -0.499*, and the coefficient of determination R^2 was approximately 0.249, at a 95% confidence level and a statistical significance level of 0.003. This indicates that approximately 24.9% of the change in the level of administrative creativity among administrators is attributed to the change in the level of digitization, while the remaining percentage (75.1%) is attributed to other factors not addressed in this study, which can be linked to the latent functions identified by sociologist Robert Merton.

The results of the t-test also confirmed that the calculated value of -3.259 is lower than the estimated table value of 2.042 at the same confidence level, indicating the presence of statistically significant differences in a negative direction between the digitization and administrative creativity variables.

Given that the significance level for the null hypothesis (Sig = 0.003) was lower than the significance level adopted in this study (0.05), the null hypothesis was rejected and the alternative hypothesis, which states that there is a statistically significant effect of digitization on administrative creativity within the hospital institution, was accepted.

The results of the last table show the linear regression equation linking the level of digitization implementation and the level of administrative creativity among employees, as follows:

$$\mathbf{Y = - 0{,}865\ x\ * + 5{,}575}$$

It should be noted that:

Y: represents the dependent variable, which is administrative creativity.

X: represents the independent variable, which is digitization.

- The value (5.575) represents the constant in the regression equation and represents the influence of other factors not considered in this equation, such as primary data, extraneous variables, and latent functions.

- B : The regression coefficient represents the effect of digitization on administrative creativity, with a value of -0.499, indicating a negative relationship between the two variables.

Based on the above, it can be concluded that there is a statistically significant negative effect between the level of digitization and the level of administrative creativity within the Mohamed Boudiaf Hospital in Oum El Bouaghi.

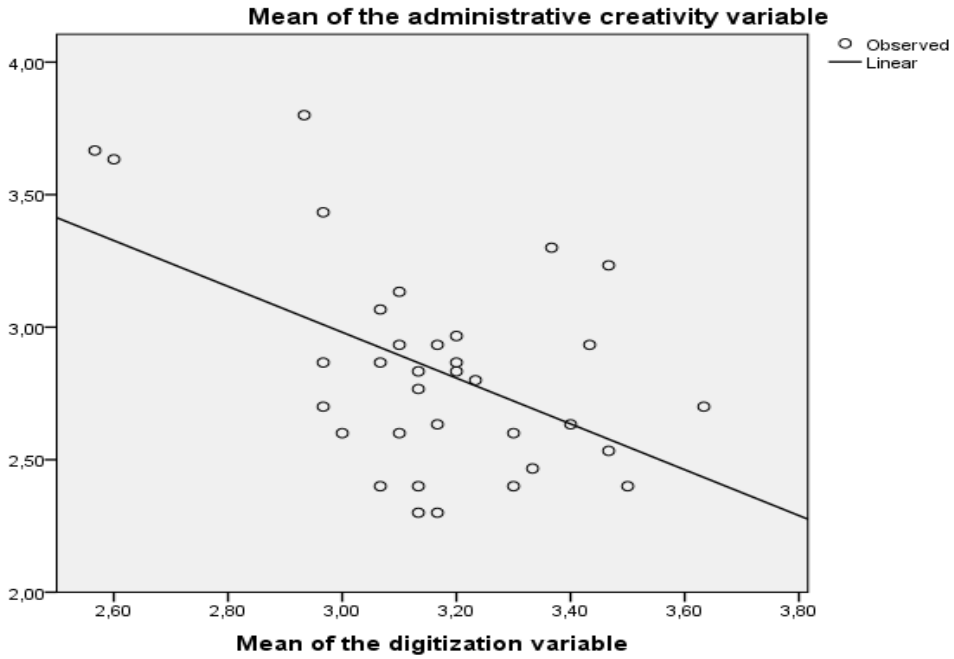


Fig. 3. *The line of diffusion between digitization and administrative creativity within the institution.*

From the graph above, it is noticeable that the data scatter plot is negative, indicating an inverse relationship between the two study variables. Based on this, the researchers concluded that digitization has a statistically significant impact on the level of administrative creativity among employees at the Mohamed Boudiaf Hospital in Oum El Bouaghi.

4. Discussion of the Study Results

- Discussion of the Study's Theoretical Results: These are the results reached by the researchers in light of the socio-organizational approach to the impact of digitization on administrative creativity, focusing on the qualitative aspect. These results can be discussed in light of the following:

4.1. In light of the sub-hypotheses and their procedural assumptions:

From a socio-organizational perspective, and based on the theoretical findings presented above, it can be noted that weak organizational culture and lack of flexibility in administrative structures are among the most prominent challenges facing the organization. In this context, it seems necessary to implement training and development programs aimed at strengthening organizational culture among employees and developing their ability to adapt to organizational transformations and changes.

Institutional integration can also be improved by enhancing internal communication and encouraging cooperation between various departments, which contributes to strengthening team spirit and teamwork.

Regarding the scarcity of material resources, efforts can be directed towards mobilizing additional financial resources, either by requesting funding support or by improving the mechanisms for managing available resources. In this context, it is proposed to adopt digital technologies as an effective means of improving the efficiency of resource use by reducing waste and improving management and distribution methods.

On the other hand, the emergence of negative statics among some administrators calls for the launch of training programs that focus on developing leadership skills, positive communication, and team motivation. In this context, it is advisable to encourage and support administrative competencies that demonstrate a willingness to renew, adapt, and innovate, as these are essential elements in achieving the desired organizational transformation.

On the other hand, there is a clear lack of creative problem-solving within the organization. It is therefore advisable to develop effective mechanisms to gather innovative ideas from different functional levels and motivate employees to participate in innovation processes. This can be achieved by forming multidisciplinary teams dedicated to creating new solutions to the complex problems facing the organization.

Regarding social and organizational cohesion, it is important to focus efforts on strengthening the spirit of cooperation and integration among employees through incentive and reward programs that encourage teamwork. Establishing a culture of openness and effective communication is also essential in this context. To achieve this, social events and interactive sessions can be organized to strengthen interpersonal relationships, in addition to creating a system for exchanging knowledge and experiences among employees, which contributes to establishing a culture of continuous learning within the organization.

These proposals represent real opportunities to improve administrative performance, strengthen the hospital's ability to adapt to changes and strengthen the social and organizational links between the different stakeholders that make it up.

Interpretation of the results in light of the first sub-hypothesis and its procedural hypotheses:

Based on the first sub-hypothesis, which assumes a significant impact of digital transformation on administrative effectiveness within the Mohamed Boudiaf Hospital, the results of testing this hypothesis indicate a negative relationship between digital transformation and administrative effectiveness. These results can be interpreted from a socio-organizational perspective according to the following elements:

Weak organizational culture and flexibility: Digital transformation has likely negatively impacted organizational culture and adaptability within the organization, as employees may feel anxious or resist the imposed technological changes. Furthermore, an excessive focus on technical dimensions has led to the neglect of organizational and cultural aspects, which are essential for fostering collaboration and team spirit.

Lack of material resources: Digital transformation can impose a significant financial burden, placing pressure on the organization's budget and increasing reliance on limited available resources. Without proper planning, this transformation can deplete resources without achieving the desired results. The emergence of negative statics among some administrators: Digital transformation may contribute to creating social tensions within the organization, especially in light of the lack of adequate administrative support or weak

communication channels. Some administrators may feel a loss of control or a decline in their job status, negatively impacting work relationships and interactions within the organization.

Weakness of creative solutions: An excessive focus on the technical dimension may weaken the sense of innovation in addressing organizational and social problems. The absence of an environment that stimulates creativity and a lack of attention to human aspects may limit the effectiveness of administrative performance in light of digital transformation.

Based on the above, it is clear that the success of digital transformation depends not only on developing the technological infrastructure, but also requires consideration of cultural and organizational dimensions, and the provision of a supportive and integrated environment that contributes to achieving sustainable administrative effectiveness.

Socio-organizational analysis in light of the second sub-hypothesis:

In general, the results indicate that digital transformation has a negative impact on some socio-organizational dimensions within the organization, particularly at the level of organizational culture and social communication. This situation highlights the urgent need to guide the digital transformation process within a comprehensive vision that ensures a balance between technical, organizational, and social dimensions, rather than a single-minded focus on technology.

In light of the second sub-hypothesis, a socio-organizational analysis of the current situation can be presented as follows:

Weak organizational culture and organizational resilience: It appears that digital transformation, as implemented within the organization, has not contributed adequately to enhancing organizational culture or supporting internal resilience. This may indicate the absence of an integrated strategy that takes into account the human and organizational dimensions alongside technological development. An excessive focus on the technical aspect of digitization without sufficient attention to the cultural and organizational aspects may reduce the effectiveness of digital transformation and weaken the organization's ability to adapt to emerging changes.

Thus, enhancing organizational culture and strengthening internal resilience are essential conditions for ensuring the success of digital transformation and achieving comprehensive and sustainable organizational effectiveness.

Analysis of the Second Sub-Hypothesis: The Impact of Cloud Storage on Collaboration and Adaptation

The results of testing the second sub-hypothesis show a negative relationship between the use of cloud storage technologies and employee levels of collaboration and adaptability. This means that, in the organizational context under study, these technologies did not contribute to enhancing these socio-organizational dimensions, but rather were associated with their decline.

This situation may be explained by the presence of other organizational factors that may hinder the effectiveness of cloud storage in improving collaboration and adaptability, such as weak internal communication channels or an organizational culture that does not encourage openness and teamwork.

Overall, these results indicate that digital transformation, including the use of cloud storage technologies, is not sufficient on its own to improve socio-organizational aspects such as organizational culture, collaboration, and adaptability. Hence, the importance of adopting an integrated approach that combines technological advancement with transformation in organizational and cultural structures, through the implementation of comprehensive strategies that enhance harmony between technical and human dimensions, to ensure the efficient and sustainable achievement of organizational goals.

A Socio-Organizational Analysis Based on the Third Sub-Hypothesis

In a related context, and based on the results of the third sub-hypothesis, a socio-organizational analysis can be presented that highlights several relevant dimensions.

First, it appears that the organization's digital strategy relies on a quantitative rather than qualitative focus. Digital technologies are used to access data faster and more comprehensively, which contributes to enhancing the ability to make effective strategic decisions. However, this focus may be at the expense of the quality of digital use, both in terms of the quality of data and the depth of analysis, potentially limiting the effectiveness of digitalization in achieving organizational goals comprehensively.

Second, the organization faces challenges related to administrative creativity and finding innovative solutions, which are linked to several factors, such as a weak organizational culture and a lack of financial resources. Hence, the need to adopt organizational policies that foster a climate of innovation emerges, such as improving internal communication, developing training programs that strengthen leadership skills and teamwork, and establishing systematic mechanisms to collect and activate creative ideas from various levels

of the organization. Third, the results indicate a positive relationship between the use of digital websites and applications and administrative effectiveness, collaboration, and adaptability within the organization. This demonstrates that the intelligent use of these tools can contribute to improving organizational performance and enhancing employee engagement. Based on this analysis, it is recommended that digitalization efforts within the organization be directed toward achieving a true balance between quantity and quality, intensifying initiatives that promote administrative innovation and a positive organizational culture, and expanding the use of digital applications to support performance effectiveness, collaboration, and adaptability within the workplace.

4.2. In light of some socio-organizational theories and the Talcott Parsons model :

We can use the Talcott Parsons model (social system) to analyze and discuss the results of the Mohamed Boudiaf Hospital Foundation in Oum El Bouaghi. These results will be viewed from a functional perspective that maintains structural integrity, which reflects the extent to which the institution's structures are compatible and able to adapt to internal and external transformations.

The Mohamed Boudiaf Hospital Foundation appears to have a largely flexible structure, focusing on digitization as a means of enhancing adaptation and increasing efficiency. Through this digitization, the institution contributes to improving interaction among its members and their response to changes and transformations, thus enhancing social integration. This process contributes to improving the flow of information, facilitating communication processes, and making decisions faster and more effectively.

The value system relates to the values and principles that guide behavior within the institution. From this perspective, the digitization process can be viewed as an initiative to promote the values of efficiency and technology, which positively impacts organizational culture. Regarding administrative discipline, which reflects the degree of organization and discipline within an organization, it may be noted that administrative creativity may be limited due to the lack of sufficient incentives for innovation and change within the organization.

With regard to profitability, which indicates an organization's ability to achieve desired goals, physical and cultural challenges may hinder the achievement of a certain level of administrative creativity, thus affecting the organization's ability to achieve the desired profitability.

With regard to stability, it reflects an organization's ability to adapt to challenges and changes. It appears that the absence of creative solutions to address material and moral problems may negatively impact the organization's stability and ability to adapt effectively.

Based on this analysis, the Mohamed Boudiaf Hospital can focus on improving digitalization processes, strengthening organizational culture, and providing the necessary incentives to foster administrative creativity, which will enable it to achieve its goals more effectively. Parsons also points out the necessity of having and implementing four basic functional requirements, which the organization must focus on implementing to ensure greater effectiveness in achieving its stability and integration.

In addition to Parsons' emphasis on the need for four basic functional requirements, these can be detailed as follows:

Adaptation:

This requirement relates to an organization's ability to adapt to changes occurring in its internal and external environment. In the case of Mohamed Boudiaf Hospital, digitization represents a moderate level of effectiveness, meaning that the organization is reasonably capable of adapting to technological developments and new requirements in the work environment.

Integration:

This requirement refers to an organization's ability to coordinate and integrate various activities within its structure to achieve common goals. In the context of digitization, this process can contribute to enhancing integration between different departments by providing quick and effective access to important information, which contributes to improved internal communication and strategic decision-making.

Goal Attainment:

This requirement relates to an organization's ability to achieve its desired goals. Although digitization may contribute to achieving some goals, there are challenges related to a lack of material resources and a weak organizational culture that may hinder this process and limit its effectiveness.

Based on the results obtained, it can be argued that the Mohamed Boudiaf Hospital Foundation is making progress through the digitalization process. However, it faces challenges that require improving organizational

culture and providing the necessary resources to achieve its goals more effectively. This analysis can be further expanded by drawing on some important socio-organizational theories, such as:

George Homend's social exchange theory (late 1950s), which asserts that individual behavior is determined by the associated rewards and costs (Al-Jayyousi, 2001, p. 83). Through this theory, the organization's focus on quantity rather than quality in the digitalization process can be explained. Leaders and managers within the organization evaluate the costs and benefits associated with investing in digital technologies. If the expected benefits of focusing on quantity outweigh the costs, it may be logical to prioritize quantity over quality.

The organizational creativity theory, proposed by Hargadon at the beginning of the twenty-first century, which argues that organizational creativity occurs through the process of mediating and linking ideas and knowledge. This process is considered one of the key factors contributing to the production of creative solutions and products (Bahri, 2009, p. 101). This theory can be used to analyze how to stimulate creativity at the Mohamed Boudiaf Hospital, particularly by linking different ideas and knowledge to foster innovation and solve organizational problems.

His contributions can be leveraged by analyzing the results of our study as follows:

The results indicate a lack of administrative creativity within the organization, which can be interpreted as a result of the lack of creative solutions to material and moral challenges. Enhancing administrative creativity requires an environment that encourages innovation and the provision of creative solutions to existing problems.

4.3. In light of previous studies:

The current findings can be analyzed and compared against socio-organizational studies that have addressed similar topics. For example, the study "The Impact of the Use of Information Systems on Administrative Creativity in Algerian Organizations" by researchers Ben Issa Lamia and Abbas Abdelhafid (University of Algiers, 2020) demonstrated that the use of information systems has a positive impact on administrative creativity by improving access to information and communication among administrators, enhancing collaboration, and providing new tools for problem-solving (p. 77).

In addition, the second study, "The Role of Digital Technology in Enhancing Organizational Creativity: A Case Study of Small and Medium-Sized Enterprises in Algeria" by researchers Hariz Suleiman and Bou Ziada Nourredine (University of Oran, 2021), demonstrated that digital technology plays a pivotal role in enhancing organizational creativity by facilitating the exchange of ideas, motivating employees to participate in innovation processes, and providing new platforms for collaboration (p. 122).

The results of our study are consistent with previous studies in some respects and differ in others. The results of the Mohamed Boudiaf Hospital study are similar to some previous studies in aspects such as the importance of digitization in improving access to information and data, which contributes to enhanced decision-making; in addition to the role of digitization in enhancing organizational flexibility and adapting to change. Our study also aligns with these studies in highlighting the challenges that hinder the adoption of administrative creativity in light of the digital transformation.

However, some points of divergence emerge, most notably the low level of administrative creativity in the organization and the absence of effective creative solutions to address organizational problems.

In addition, some relevant foreign studies can be cited, such as "The Impact of Information and Communication Technology on Administrative Creativity: An Empirical Study of American Companies" by Scott & Bruce (University of Texas, 1994), which demonstrated that ICT has a positive impact on administrative creativity in American companies by improving access to information and communications, providing new tools for problem-solving, and enhancing collaboration among managers (p. 68). Our study is also consistent with the study “Factors Influencing Organizational Creativity in the Information Age” by Edmondson (Stanford University, 1999), which identified a number of factors influencing organizational creativity, such as: company culture, management support, availability of resources, and employee skills (p. 94).

Discussion of the applied results of the study:

Based on the preliminary data collected through the field study on the impact of digitization on administrative creativity among administrators at the Mohamed Boudiaf Hospital in Oum El Bouaghi Province, which included a sample of 34 administrators, sub-hypotheses and operational hypotheses were developed. These hypotheses will be discussed in light of the interview guide, which included nine questions. Each question addresses a specific aspect of the seven questionnaire axes, according to the following percentages and frequencies:

1/ Results of testing the first sub-hypothesis:

There is a significant negative effect between digital transformation and administrative effectiveness within the Mohamed Boudiaf Hospital in Oum El Bouaghi Province.

This hypothesis included three operational hypotheses to demonstrate its validity:

Results of testing the first operational hypothesis:

There is a significant negative effect between digital transformation and administrative effectiveness among employees at the Mohamed Boudiaf Hospital in Oum El Bouaghi Province at a significance level of 0.05.

The results of testing the second procedural hypothesis:

There is a significant negative effect between digital transformation and collaboration among employees at Mohamed Boudiaf Hospital in Oum El Bouaghi Province, at a significance level of 0.05.

The results of testing the third procedural hypothesis:

There is a significant negative effect between digital transformation and adaptation among employees at Mohamed Boudiaf Hospital in Oum El Bouaghi Province, at a significance level of 0.05.

As for the questions through which the results of this first sub-hypothesis can be discussed, they relate to the following variables:

A question related to archiving documentation:

The results showed that 50% of the participants, who are department heads, agreed that their department members have expertise in the field of archiving, while 50% disagreed.

A question related to administrative effectiveness:

The results showed that 50% of the participants, who are department heads, agreed that their department members have the ability to enhance administrative processes, while 50% disagreed.

The hypothesis proposed regarding the existence of a statistically significant negative effect between digital transformation and administrative effectiveness within the Mohamed Boudiaf Hospital in Oum El Bouaghi can be discussed by examining the socio-organizational link between questions related to archival documentation and skills, as well as questions related to the administrative effectiveness variable.

Archival Documentation:

There appears to be equal agreement between managers and participants regarding the experience gained in the field of archiving. This discrepancy may be due to a difference in awareness of the importance of archival documentation and its impact on improving administrative processes. If an institution suffers from a lack of archival documentation, this may negatively impact its ability to improve administrative processes and enhance the quality of services provided.

Enhancing the Quality of Administrative Processes:

The equal agreement between managers and participants regarding the ability of individuals to enhance administrative processes indicates potential for improvement. However, the equal distribution between those in favor and against indicates that there are challenges to achieving this improvement. Digital transformation and the use of information technology may be an effective tool to support the enhancement of administrative processes, but effective guidance and support are required to ensure the effective implementation of these technologies.

Based on this analysis, it can be argued that there is a potential relationship between digital transformation and the quality of administrative processes. However, the results indicate a divergence of opinion regarding the extent of this relationship. Therefore, it is important to direct investments and efforts towards enhancing awareness, developing skills, and providing the necessary support to achieve greater administrative effectiveness through digital transformation in the hospital organization.

- Results of the second sub-hypothesis test:

The results indicate that cloud storage has a significant impact on collaboration among employees at Mohamed Boudiaf Hospital in Oum El Bouaghi Province. This hypothesis was supported by three procedural hypotheses related to the impact of cloud storage on administrative effectiveness, cooperation, and adaptation. The results are as follows:

- Results of the first procedural hypothesis test:

There is a significant effect between cloud storage scores and administrative effectiveness among employees at Mohamed Boudiaf Hospital in Oum El Bouaghi Province, at a significance level of 0.05.

- Results of the second procedural hypothesis test:

There is a significant effect between cloud storage scores and collaboration among employees at Mohamed Boudiaf Hospital in Oum El Bouaghi Province, at a significance level of 0.05.

- Results of the third procedural hypothesis test:

There is a significant effect between cloud storage scores and adaptation among employees at Mohamed Boudiaf Hospital in Oum El Bouaghi Province, at a significance level of 0.05. Regarding the questions based on which the results of this second sub-hypothesis can be discussed, those related to cloud storage and collaboration can be identified as follows:

Question related to digital filing:

Results showed that 50% of leaders and participants agreed that their department's staff possesses sufficient expertise in cloud storage, while 50% disagreed.

Question related to a balanced division of labor:

100% of participants and leaders agreed that there is a fair and balanced division of labor among individuals within the department.

Question related to achieving a common goal:

50% of participants and leaders agreed that individuals strive to achieve a common goal, while the other 50% responded negatively.

The hypothesis that there is a statistically significant negative effect between cloud storage and collaboration within the Mohamed Boudiaf Hospital in Oum El Bouaghi can be discussed through the socio-organizational link between questions related to digital storage, balanced division of labor, and achieving a common goal. This is demonstrated as follows:

Digital Storage:

The results revealed a clear discrepancy in the opinions of managers and participants regarding individuals' expertise in cloud storage. Fifty percent of them agreed with the existence of such expertise, while the other 50% disagreed. This division indicates a disparity in the level of awareness of the importance of cloud storage and its ability to enhance collaboration and facilitate task coordination between different departments.

Balanced Division of Labor:

The results showed complete agreement between managers and participants regarding the existence of a fair and balanced division of labor within the department. This is a positive indicator reflecting an organizational environment that supports collaboration, based on a sense of equality and fairness in the distribution of tasks among employees.

Achieving a Common Goal:

The data revealed a split in opinions among leaders and participants regarding the extent to which individuals strive to achieve common goals. Half of the participants agreed with this statement, while the other half disagreed. This discrepancy may indicate differences in levels of motivation and engagement in teamwork, which could weaken the effectiveness of collaboration within the organization.

Based on this analysis, it can be argued that cloud storage, despite the organizational tools it provides, may not automatically lead to improved collaboration unless it is supported by a shared understanding and appropriate training. Therefore, it is recommended that hospital institutions direct their efforts toward ongoing training and awareness of the importance of technology in enhancing teamwork and building a unified organizational culture based on shared goals.

- Results of the Second Sub-Hypothesis Test:

The results of the study indicate a statistically significant positive effect between the use of websites and the adaptability of employees within the Mohamed Boudiaf Hospital in Oum El Bouaghi Province.

The validity of this sub-hypothesis was verified through three procedural hypotheses, the results of which were as follows:

- Procedural Hypothesis 1: The results showed a significant (weak) negative effect between the use of websites and applications and administrative effectiveness among hospital employees at a significance level of (0.05).

- Procedural Hypothesis 2: The results showed a significant positive effect between the use of websites and applications and the level of cooperation among hospital employees at the same significance level.

- Procedural Hypothesis 3: The results confirmed a significant positive effect between the use of websites and applications and the adaptability of employees in the work environment.

To discuss this sub-hypothesis, specific questions within the questionnaire were directly related to the variables "apps" and "adaptation," as follows:

A question related to digital communication:

All managers and participants (100%) indicated disagreement regarding the rapid access to information among department members. This highlights a real challenge in the field of digital communication, which may undermine the use of digital applications to enhance administrative effectiveness.

A question related to adapting to work pressures:

Responses revealed a split in opinions, with 50% of participants stating that their department members possess resilience in dealing with work pressures, while the other half denied this. This discrepancy indicates a difference in the level of adaptation among employees, which may require administrative intervention to strengthen psychological and professional skills to cope with increasing pressures.

Based on the above, it can be said that app sites have a positive impact on adaptation within the organization. However, fully utilizing these tools requires addressing issues related to rapid access to information, in addition to supporting employees in developing their ability to adapt to work changes.

Discussion of the sub-hypothesis related to the impact of mobile applications on adaptation within the Mohamed Boudiaf Hospital - Oum El Bouaghi

The hypothesis, which indicates a statistically significant positive effect between the use of mobile applications and employees' ability to adapt within the Mohamed Boudiaf Hospital, can be discussed by analyzing the socio-organizational relationship between the results of questions related to digital communication and adaptation to work stress.

Digital Communication:

Participants showed varying opinions regarding the rapid accessibility of information within departments, as not all agreed on the existence of this capability. This variation may be explained by varying levels of technological awareness or by deficiencies in the institution's digital infrastructure. Poor immediate access to information may lead to slow decision-making and delayed coordination between departments, negatively impacting employees' ability to adapt to the changes and increasing demands in the work environment.

Coping with Work Stress:

The division in participants' opinions regarding employees' ability to adapt to ongoing work stress reflects individual differences in psychological and professional skills, as well as in their readiness to adapt. Failure to effectively cope with professional pressures can lead to decreased productivity and increased stress levels, directly impacting the organization's overall performance.

Potential Positive Impact:

Developing digital communication within the organization through strengthening the IT infrastructure and providing appropriate training will contribute to accelerating information exchange and enhancing coordination among employees. Furthermore, supporting adaptive and resilient capabilities through psychological and professional training programs will enhance employees' ability to deal with ongoing challenges more effectively.

General Recommendation:

Based on this analysis, it is recommended that the hospital institution adopt dual strategies: first, to improve the efficiency of digital communication by employing modern technologies and training the workforce, and second, to enhance employees' adaptive capabilities in line with the changing work environment, thus ensuring a more balanced and collaborative organizational environment.

General Result of the Study:

The results show that digitization has a moderately positive impact on administrative creativity within the organization. The Mohamed Boudiaf Foundation in Oum El Bouaghi has sought to adopt digitization as a strategic option by integrating modern applications and technologies, which has contributed to the emergence of some manifestations of administrative creativity, despite the challenges and obstacles that remain.

General conclusion after presenting and discussing the theoretical and applied results:

After analyzing the theoretical and applied results related to the topic of digitization and administrative innovation within the Mohamed Boudiaf Hospital in Oum El Bouaghi, from both the administrators' and physicians' perspectives, it can be confirmed that the theoretical and applied data complement and intersect in a way that enhances the credibility of each. Theoretical and applied results cannot be separated, neither in presentation nor in discussion, as each aspect lends the other relative depth and legitimacy.

However, this integration between the two aspects remains relative, given that the study's results are not final or absolute. Rather, they remain open to the possibility of re-research, scrutiny, and development, within the framework of precise scientific methodological steps based on objective foundations that enhance the reliability of the results and the continuity of the study.

Conclusions

Digitization is one of the most prominent transformations embraced by institutions in the current era, bringing about radical changes that go beyond the technical framework to encompass various aspects of administrative work, particularly in the healthcare sector. The integration of digital solutions within the Mohamed Boudiaf Hospital in Oum El Bouaghi has contributed to improving the quality of healthcare, simplifying administrative procedures, and enhancing employee productivity.

At the core of this transformation, digitization is not limited to a mere technical update; it has also served as a catalyst for reconsidering traditional administrative practices and creating more efficient and advanced mechanisms. Digital tools have also contributed to creating an organized and stimulating work environment, unleashing employee creativity and encouraging them to generate innovative ideas that contribute to raising the level of administrative and medical performance alike.

Based on these findings, the study recommends the continued adoption and development of digital technologies to ensure sustained efficiency and excellence in healthcare service delivery and enhance patient and all stakeholder satisfaction. It also emphasizes the importance of supporting the creative process and linking digitization processes to achieve integrated and sustainable administrative effectiveness.

REFERENCES

1. Ahmed, M. S. (2009). Electronic Administration (1st ed.). Amman: Osama Publishing and Distribution House.
2. Akroushi, N. (2024). New Product Development (1st ed.). Jordan: Wael Publishing House.
3. Al-Barghi, M. (2022). Introduction to Strategic Thinking (1st ed.). (No country of publication): Dar Al-Manahj for Publishing and Distribution.
4. Aseel, M. A. (2009). The effectiveness of a proposed program to develop creativity among children in the Gaza Strip, unpublished master's thesis in psychology, Palestine.
5. Bouhaza, M. (2019). Administrative leadership and its relationship to administrative creativity (no edition). (no place of publication).
6. Boutarfa Rochdi, & Zedira Khammar. (2024). DIGITIZATION AND ITS IMPACT ON THE QUALITY OF HIGHER EDUCATION IN ALGERIAN UNIVERSITIES. International Journal of Innovative Technologies in Social Science, (4(44). https://doi.org/10.31435/ijitss.4(44).2024.3018
7. Firdaws Hafiane, & Zedira Khammar. (2025). ORGANIZATIONAL COMMITMENT AND ITS RELATIONSHIP TO QUALITY OF WORK LIFE IN LOCAL ADMINISTRATION: A CASE STUDY OF GUELMA. *International Journal of Innovative Technologies in Social Science*, (1(45). https://doi.org/10.31435/ijitss.1(45).2025.3140
8. Jalouli, A. (2012). The impact of organizational culture on administrative creativity among employees in Algerian higher education institutions. A case study of Mohamed Lakhdar University. A thesis submitted for the requirements of a master's degree in organizational management sciences, University of Biskra.
9. Jarghoun, Essam Raafat. (2022). Organizational Flexibility and Administrative Creativity (no edition). (no place of publication).
10. Lawshe, C. H. (1975). A Quantitative Approach to Content Validity. Personnel Psychology, 28, 563-575. https://doi.org/10.1111/j.1744-6570.1975.tb01393.x
11. Mahri, S. (2006). The Digital Library in Algeria. Magister's Thesis, Faculty of Humanities and Social Sciences, A Study of the Reality and Future Aspirations: Constantine Province. University of Mentouri, Constantine.
12. Media and Communication Cell of the Mohamed Boudiaf Hospital, Oum El Bouaghi Province 2024.
13. Muqaddam, A. G. (2005). Digitization as an approach to improving public service in Algeria, the justice sector as a model.
14. Oukkaf, M., Khammar, Z. (2024). Digitization and the Problem of Teamwork in the Contemporary Organization: Dimensions and Perceptions, Journal of the University of Psychological Studies and Educational Sciences, Volume: (9) Issue: (2) 2024 pp: 425-452
15. Qawadria, H. (2019). Administrative creativity and its impact on improving human resource performance in business institutions, a case study of the Algerian Telecommunications Corporation, a thesis to obtain the requirements for an academic master's degree, LMD, State: University of Tebessa.
16. Sadiki, F. (2021). The Role of Digitization in Improving Public Service in Algeria, a published third-stage doctoral dissertation, an analytical study of local communities. University of Constantine 3, Saleh Boubnider, Faculty of Information, Communication and Audiovisual Sciences.
17. Scott, S. G., & Bruce, R. A. (1995). Decision-making style: The development and assessment of a new measure. *Educational and Psychological Measurement, 55*(5), 818–831. https://doi.org/10.1177/0013164495055005017
18. Shanaq, S. (2016). Administrative leadership and its impact on administrative creativity, a field study at the Algerian Telecommunications Agency, a thesis to obtain the requirements for a master's degree in organizational sociology, Jijel University.