



The Contribution of Information Technology in Supporting Organizational Development -A Field Study at the Operational Directorate of Algeria Telecom in Djelfa-

مساهمة تكنولوجيا المعلومات في دعم التطوير التنظيمي
-دراسة ميدانية بالمديرية العملياتية لاتصالات الجزائر بالجلفة-

^{1*} Adel Belkheiri, adel.belkheiri@univ-djelfa.dz

² Latra Belkheiri, latrabelkheiri@gmail.com

¹ PhD, University of Djelfa (Algeria)

² Researcher, University of Djelfa (Algeria)

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Abstract

This study aims to examine the extent to which information technology contributes to supporting organizational development at the Operational Directorate of Algérie Télécom in Djelfa. To achieve this objective, a descriptive approach was adopted, and a questionnaire was designed to collect data from a sample of 30 participants. Data were analyzed using the SPSS V26 statistical software package. The results indicated a statistically significant effect of information technology on organizational development within the Operational Directorate of Algérie Télécom in Djelfa.

Keywords

Technology;
Information
Technology;
Development;
Organizational
Development;
Operational
Directorate of
Algérie Télécom in
Djelfa;

JEL Classification Codes : M15 ; O33 ; D23

الكلمات المفتاحية

تكنولوجيا؛ تكنولوجيا
المعلومات؛ تطوير
تنظيمي؛ المديرية
العملياتية بالجلفة.

الملخص

تهدف هذه الدراسة إلى الكشف عن مدى مساهمة تكنولوجيا المعلومات في دعم التطوير التنظيمي بالمديرية العملياتية لاتصالات الجزائر بالجلفة. ولتحقيق ذلك، تم اعتماد المنهج الوصفي وإعداد استبيان لجمع البيانات من عينة تضم (30) مفردة. وبعد تحليل البيانات باستخدام برنامج الحزمة الإحصائية SPSS.V26، توصلت النتائج إلى وجود أثر ذو دلالة إحصائية لتكنولوجيا المعلومات في التطوير التنظيمي داخل المديرية العملياتية لاتصالات الجزائر بالجلفة.

تصنيف JEL : M15 ؛ O33 ؛ D23

* corresponding author : Adel Belkheiri, email : adeldz1333@gmail.com

I.INTRODUCTION:

The world today is witnessing remarkable and rapid advancements in technology and information. Modern organizations increasingly regard information as the most important resource and knowledge as the greatest investment. This has driven them to compete in acquiring the latest technologies that enable them to exert influence within the current and future competitive environment and to dominate both local and international markets. This is achieved by employing these technologies in organizational development, integrating them across all levels, structures, activities, and operations of the organization, with the goal of creating an advanced and intelligent digital organization that possesses a competitive advantage. Moreover, organizations now view information technology as the fundamental basis for organizational development due to its significant impact on the organization. It contributes to continuous renewal and modernization, which has become essential for organizations to adapt and survive in a flexible environment characterized by rapid digital transformation.

Research Problem:

Information technology has become a fundamental factor in structuring organizations and shaping their business strategies. Its role is no longer limited to supporting simple routine operations; rather, it has expanded to encompass all processes, ranging from the basic to the strategic.

In this context, the experiences of Amazon and Starbucks exemplify this transformation, as the use of data analytics, artificial intelligence, and digital systems has contributed to organizational changes affecting structures, organizational culture, leadership styles, and mechanisms of interaction with customers. However, the success of these experiences raises an academic question as to whether the impact of information technology on organizational development is direct and inevitable, or whether it depends on the extent of its alignment with organizational strategy, the competence of human resources, and the organization's ability to manage change (Psico-smart Editorial Team, 2026). Accordingly, the research problem can be formulated as follows:

To what extent does information technology contribute to supporting organizational development at the Operational Directorate of Algeria Telecom in Djelfa?

Based on this, the present study seeks to answer the following questions:

- What is the level of availability of information technology at the Operational Directorate of Algeria Telecom in Djelfa?
- What is the level of organizational development at the Operational Directorate of Algeria Telecom in Djelfa?
- Is there a statistically significant correlation between information technology as an independent variable and organizational development as a dependent variable at the Operational Directorate of Algeria Telecom in Djelfa?
- Is there a statistically significant effect of information technology on organizational development at the Operational Directorate of Algeria Telecom in Djelfa?

Research Hypotheses:

Based on the main problem and the sub-questions, the study formulated four main hypotheses as follows:

- **H1:** There is a high and statistically significant level of information technology, from the perspective of employees at the Operational Directorate of Algeria Telecom in Djelfa.
- **H2:** There is a high and statistically significant level of organizational development, from the perspective of employees at the Operational Directorate of Algeria Telecom in Djelfa.
- **H3:** There is a strong and positive correlation, statistically significant at the significance level ($\alpha \leq 0.05$), between information technology and organizational development at the Operational Directorate of Algeria Telecom in Djelfa.
- **H4:** There is a statistically significant effect, at the significance level ($\alpha \leq 0.05$), of information technology on organizational development at the Operational Directorate of Algeria Telecom in Djelfa.

Research Objectives:

This study aims to achieve a set of main objectives, which are as follows:

- To determine the level of both information technology and organizational development at the Operational Directorate of Algeria Telecom in Djelfa.
- To examine the nature of the relationship between information technology and organizational development at the Operational Directorate of Algeria Telecom in Djelfa.
- To assess the extent of the impact of information technology on organizational development at the Operational Directorate of Algeria Telecom in Djelfa.
- To derive practical findings and recommendations that can benefit researchers in this field, in addition to providing guidance that contributes to improving operations within the Operational Directorate of Algeria Telecom in Djelfa.

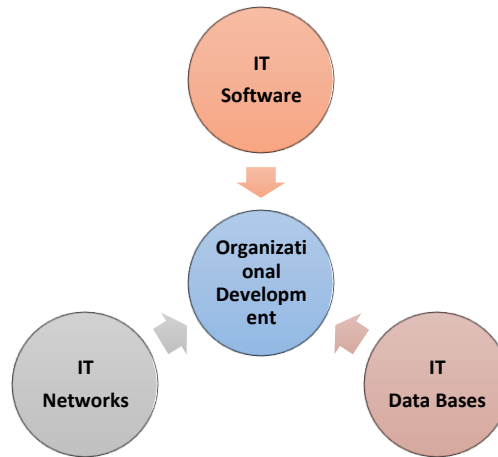
Significance of the Research:

The importance of this study is evident in two main aspects:

- **Scientific Significance:** It lies in its role as a valuable scientific contribution that can be utilized by students, researchers, and specialists in the fields of information technology and organizational development. In addition, it provides a broad and comprehensive understanding of information technology and its relationship with organizational development within the Operational Directorate of Algeria Telecom in Djelfa.
- **Practical Significance:** It is reflected in its ability to reveal the extent of information technology's impact on organizational development within the Operational Directorate of Algeria Telecom in Djelfa. Furthermore, the study's findings and recommendations help support managers at the Operational Directorate of Algeria Telecom in Djelfa by providing the necessary methods and strategies to enhance and implement organizational development effectively.

Research Model:

Figure (01): Research Model



Source: Prepared by the researchers based on previous studies.

II.THEORETICAL FRAMEWORK AND PREVIOUS STUDIES:

1.Theoretical Framework:

The twenty-first century is considered an era dominated by Information Technology (**IT**), as it has become an essential part of various aspects of daily life, influencing the way we communicate and handle information at both individual and organizational levels (Ruhul, 2023, p. 285). Information Technology is defined as a technology that facilitates communication processes and enables the electronic collection and transfer of information. This technology comprises a set of fundamental components, including hardware, software, networks, and databases (Ahuru, Osabohien, Abdulazi, Al-Faryan, & Sowemimo, 2022, p. 01). Furthermore, **IT** is described as a collection of technologies that support information retrieval, transformation, processing, storage, and dissemination, utilizing multiple electronic means that allow access to information efficiently and rapidly (Kounda, 2018, p. 271). Information Technology is considered a branch of technology specializing in information processing, with a primary focus on collecting, storing, processing, and transmitting data through modern communication tools. It represents the integration of computing and communication technologies, making it an effective tool for supporting institutions and achieving their objectives efficiently (Bhamed, 2025, p. 23). Additionally, **IT** enables organizations to perform operations and analyze data more quickly, reduces human errors, ensures accuracy in data processing, and saves effort for employees. it also allows organizations to store vast amounts of data and facilitates their retrieval and accessibility. **IT** is also considered a key source for enhancing organizational performance and increasing operational efficiency, as well as improving effective communication

between employees and clients and accelerating administrative decision-making (Maatallah & Bekkadi, 2025, p. 288).

From the above, it is clear that Information Technology represents a comprehensive and multifaceted technology. its components include hardware and equipment, software and applications, networks, and databases. **IT** has become an integral part of daily life due to the services it provides to society, highlighting its fundamental role in collecting, processing, and disseminating information through advanced and diverse methods.

History indicates that Organizational Development (**OD**) emerged in the late 1950s, although it experienced a slight decline in the 1980s, meaning that researchers' and organizations' interest in it decreased somewhat during that period. Nevertheless, **OD** practices themselves date back at least to **Kurt Lewin's** work with the **Harwood** Company in 1939. These practices did not disappear; rather, they continued to grow and expand both theoretically and practically, spreading globally. A review of the long history of **OD** shows that this field has experienced continuous growth since its early beginnings (Burnes & Cooke, 2012). Organizational Development is defined as a scientific approach that relies on behavioral sciences to implement planned change aimed at improving organizational performance and enhancing effectiveness. it utilizes tools such as feedback, training, and the development of workplace relationships, with the possibility of employing one or more methods depending on the organization's needs (Rastgoo, 2016, p. 655). According to **Trottier and Chinoperekweyi**, **OD** is considered a fundamental approach to achieving sustainable performance; however, it is a complex process that requires starting from the specific context of the local environment and adopting a dynamic, non-traditional approach based on continuity. Organizations are inherently evolving entities influenced by rapid internal and external changes, which necessitates adopting a flexible conceptual and methodological framework that allows continuous adaptation and renewal in line with the demands of a changing environment (Trottier & Chinoperekweyi, 2023, p. 04). **Ukpata and Olukotun** identify three main pillars of **OD**: first, it is based on systematic change planning, avoiding randomness; second, it aims to improve performance and effectiveness rather than merely implementing superficial change or imitating other organizations; third, it is grounded in scientific principles derived from disciplines such as organizational behavior, psychology, and sociology, rather than focusing solely on financial or technical aspects (Ukpata & Olukotun, 2008, p. 86). Some scholars argue that the essential characteristics of **OD** can be summarized in four core principles: focusing on organizational culture and internal processes, emphasizing the human and social dimension, relying on an action research model based on broad and active participation of the client system, and adopting a developmental perspective aimed at achieving mutual benefits for both individuals and the organization (Mishra, 2024, p. 2135) . **Ussahawanitchakit** also believes that **OD** positively contributes to improving the work environment, individual knowledge, skills, attitudes, and behavior. Organizations that prioritize these aspects can enhance employee satisfaction, achieve competitive advantage, increase performance, and foster success, making **OD** a key factor in strengthening organizational competitiveness and institutional success (Ussahawanitchakit, 2017, p. 218).

Thus, it is evident that **OD** involves implementing fundamental change based on scientific frameworks, relying on behavioral and social sciences alongside financial and technical resources,

from planning to achieving the goal of supporting the organization and securing its sustainability in a challenging and dynamic environment.

OD is influenced by several variables, among which Information Technology (**IT**) is particularly significant. **Saleem et al.** argue that **IT** can affect **OD** through the outcomes of the organization's business aspects, categorized into two types of benefits: tangible (financial) and intangible or "soft" (non-financial). The latter includes knowledge value derived from **IT**, encompassing employee performance, software and database responsiveness, and workplace relationships. The business benefits resulting from **IT** reflect its impact on organizational performance at all levels, including efficiency and competitive effect. Some scholars further classify **IT** benefits as strategic (e.g., collaboration with colleagues), managerial (e.g., improving and enhancing performance), operational (e.g., quality improvement and cost reduction), and organizational (e.g., enhancing communication and collaboration) (Saleem, et al., 2017, p. 04). According to **Telkhouch**, **IT** influences **OD** in three main domains: first, work-related impact, as **IT** facilitates performing tasks anytime and anywhere except for some tasks requiring on-site presence and supports replacing traditional equipment with advanced digital devices, thereby increasing efficiency and effectiveness. Second, administrative process impact, through faster communication between departments and units within the organization and with external stakeholders, clarifying objectives for all parties, enhancing administrative control, problem-solving, and supporting managerial roles. Third, human resource impact, by enhancing teamwork, decision-making, flattening hierarchical levels, job descriptions, evaluation processes, improving performance, increasing productivity, customer satisfaction, strengthening reward systems, and improving colleague communication (Telkhouch, 2021, p. 238.240).

From the above, it can be concluded that **IT** represents one of the most important drivers affecting **OD**, influencing all levels and aspects of the organization commercial, financial, technical, and human resources thereby significantly supporting the organization in achieving its objectives and maintaining its market position and competitive advantage in the face of environmental competition.

2.Previous Studies

Previous studies review the scientific research related to the study's topic, aiming to identify their findings and research trends in order to inform the development of the current study's framework.

- **Study (Parvaneh Rastgoo, 2016), titled: The Relationship of Talent Management and Organizational Development with Job Motivation of Employees,' a scholarly article.**

This study aimed to examine the relationship between talent management and organizational development with employee work motivation in the educational, research, and cultural departments, as well as the student affairs departments at Bushehr University of Medical Sciences and Health Services in Iran. The study was conducted on a sample of **170** individuals. It employed a descriptive methodology and used a questionnaire as the data collection instrument, with data analyzed using **SPSS** software.

The study found a positive and statistically significant relationship between talent management, organizational development, and employee work motivation.

One of the main recommendations of this study was to include additional variables as mediators in future research and to examine the relationships among organizational structures within a comprehensive model.

- **Study (Saleem et al., 2017), titled: Assessing the effects of information and communication technologies on organizational development: business values perspectives,' a scholarly article.**

This study aimed to examine how information and communication technology (ICT) projects (such as information systems and others) affect strategic, social, and human development within organizations. This was achieved by proposing an integrated framework, whose validity was verified through a case study in the Kingdom of Saudi Arabia, assessing the impact of ICT and information systems projects within the organization from a managerial perspective. The framework included a list of processes and sub-criteria for various characteristics used to measure the impact of these projects. The study employed a descriptive methodology and utilized interviews with **six** out of **fifteen** organizations to collect data.

The study concluded that the impact of ICT projects is not limited to social and economic development but also encompasses strategic, managerial, informational, operational, organizational, transformational, transactional, and infrastructural development.

One of the main recommendations of this study was that future research should broaden the perspective by conducting additional case studies in collaboration with practicing ICT experts in other countries to explore additional dimensions for measuring the impact of information technology on organizations.

- **Study (Saida Taloukh, 2021), titled: Contribution of Information Technology to Activating Organizational Development in "NCA Rouiba" Corporation,' a scholarly article.**

This study aimed to examine the impact of information technology on organizational development across its three dimensions (individuals, work teams, and the organization) in **NCA Rouiba**, with a sample of **51** administrative employees. The study employed a descriptive methodology and used a questionnaire as the data collection instrument, with data analyzed using **SPSS** software.

The study found that information technology has a significant impact on organizational development within the institution under study.

One of the main recommendations of this study was to implement new managerial approaches to keep pace with rapid technological developments, maintain efficiency and effectiveness in work, and leverage the opportunities provided by information technology.

- **Study (Fayrouz Bahamed, 2025), titled: The Role of Modern Information and Communication Technologies in Improving Public Relations Management in Public Institutions: A Case Study of the National Institute of Productivity and Industrial Development (INPED),' a doctoral dissertation.**

This study aimed to examine the role of information and communication technology (ICT) in enhancing public relations management at the National Institute of Productivity and Industrial Development (**INPED**), with a sample of **60** participants. The study employed a descriptive

methodology and used a questionnaire as the data collection instrument, with data analyzed using SPSS software.

The study concluded that ICT plays a significant role in improving public relations at **INPED**.

One of the main recommendations of this study was to strengthen investment in ICT to ensure its optimal use in enhancing institutional performance. This requires the institute's management to continuously adopt the latest technologies and provide the necessary infrastructure to support their effective utilization.

- **Distinguishing Features of This Study Compared to Previous Studies:**

This study shares similarities with all previous studies in employing a descriptive methodology. It is also similar to the studies by **Saleem et al. (2017)** and **Taloukh (2021)** in examining the impact of information technology on organizational development. Additionally, it aligns with the studies by **Rastgoo (2016)**, **Taloukh (2021)**, and **Bahamed (2025)** in using a questionnaire as a data collection tool and analyzing the data with SPSS.

This study differs from **Saleem et al. (2017)** in terms of the data collection tool, as the latter relied on interviews. Regarding the study environment, this research is similar to **Taloukh (2021)** and **Bahamed (2025)**, as it was conducted in an Algerian context, and differs from **Rastgoo (2016)** and **Saleem et al. (2017)**, which were conducted in different environments.

What distinguishes this study is its field of application, as it was conducted in the telecommunications sector in Algeria. This context may lead to different findings that can be valuable for managers, particularly in the Operational Directorate of Algérie Télécom in Djelfa, as well as for researchers in this field.

III. METHOD AND PROCEDURES:

1. Research Method:

In this study, the descriptive method was adopted, along with a review of the literature and previous studies relevant to the research topic. On the practical level, a questionnaire was used as a data collection tool, while the **SPSS software (version 26)** was employed to analyze the collected data.

2. Study Population and Sample:

This study was conducted at the Operational Directorate of Algeria Telecom in Djelfa. The study population consisted of all employees at the directorate, totaling 80 individuals. A random sample of 30 respondents was selected. Out of 40 questionnaires distributed, 33 were returned, and three were excluded due to invalid responses, resulting in 30 valid questionnaires for analysis.

3. Study Instrument:

A research questionnaire consisting of four sections was used. The first section was devoted to an introductory and motivational message through which respondents were informed about the nature and objectives of the study. It also emphasized the confidentiality of the information provided and its use solely for scientific research purposes, while highlighting the importance of answering the

questions accurately and not leaving any item unanswered. The second section focused on collecting data related to the personal characteristics of the sample. The third section addressed the independent variable, namely Information Technology, and its dimensions: software, networks, and databases. The fourth section dealt with the dependent variable, organizational development. In the last two sections, a five-point Likert scale was employed, distributed across five levels: **(5) Strongly Agree, (4) Agree, (3) Moderately Agree, (2) Disagree, and (1) Strongly Disagree.**

4. Statistical Methods and Concepts Used in the Study:

The analysis of the study data employed various concepts related to descriptive and inferential statistics, which can be outlined as follows:

- Cronbach's Alpha.
- Shapiro-Wilk Test.
- Descriptive Statistical Measures.
- One-Sample Wilcoxon Test.
- Spearman's Rho Correlation Coefficient.
- Simple Linear Regression Coefficient.

5. Reliability and Validity of the Instrument:

To ensure the reliability of the study, **Cronbach's Alpha** was used. This coefficient ranges from **0** to **1**, with values closer to **1** indicating higher reliability of the research instrument.

Table (01): Reliability coefficients of the study axes using Cronbach's Alpha

Axis	Number of Items	Coefficient Value
Information Technology	12	0.83
Organizational Development	10	0.88
All Study Variables	22	0.90

Source: Prepared by the researchers based on the outputs of SPSS v26.

Based on Table (01), it can be stated that the reliability of the first axis, representing Information Technology, for the study sample reached a value of **0.83**, which is considered excellent. The reliability coefficient for the second axis, representing Organizational Development, was **0.88**, also classified as excellent. The overall reliability coefficient for the study reached **0.90**, indicating a very high level of reliability. This means that there is a **90%** confidence that the same results would be obtained if the study instrument were redistributed, confirming that the instrument is suitable for statistical analysis.

6. Normality Test:

To ensure that the extracted data follow a normal distribution, the **Shapiro-Wilk test** was conducted, yielding the following results:

Table (02): Results of the normality test for the study variables

Axis	Test Statistic	Significance Value (sig)
Information Technology	0.858	0.001
Organizational Development	0.913	0.017
All Study Variables	0.918	0.023

Source: Prepared by the researchers based on the outputs of SPSS v26.

Based on Table (02), it is evident that the significance values (**sig**) for the variables Information Technology and Organizational Development are less than the significance level ($\alpha \leq 0.05$), indicating that they do not follow a normal distribution. Similarly, the overall study variables also do not follow a normal distribution, as their significance value (**sig**) is below the threshold ($\alpha \leq 0.05$). Therefore, subsequent analyses will rely on non-parametric tests for all variables.

IV.STUDY RESULTS (ANALYSIS AND DISCUSSION):

The objective of this section is to provide a general overview of Information Technology and Organizational Development at the Operational Directorate of Algérie Télécom in Djelfa.

1.Presentation and Analysis of the Personal and Job-Related Data of the Study Sample:

Table (03) illustrates the characteristics of the study sample, which were captured through five main variables: gender, age, educational qualification, years of service, as follows:

Table 03: Distribution of the Study Sample According to Personal and Job-Related Data

Personal Data	Category	Frequency	Percentage
Gender	Male	19	63.3%
	Female	11	36.7%
	Total	30	%100
Age	30 years or less	4	13.3%
	31–40 years	15	50%
	41–50 years	8	26.7%
	51 years or more	3	10%
	Total	30	%100
Educational Qualification	Below Secondary	1	3.3%
	Secondary	6	%20

	Technical / Higher Technical	3	10%
	Bachelor / Engineer / Master	16	%53.3
	Master / Doctorate	4	%13.3
	Total	30	%100
Years of Service	5 years or less	5	16.7%
	6–10 years	15	50%
	11–20 years	3	10%
	21 years or more	7	%23.3
	Total	30	%100

Source: Prepared by the researchers based on the outputs of SPSS v26.

Based on Table (03), it is evident that the proportion of males exceeds that of females, with males representing **63.3%** of the total sample. This reflects the greater reliance of the Operational Directorate of Algérie Télécom in Djelfa on male personnel, which can be attributed to the nature of the tasks and activities required by its functions.

Regarding age, the highest proportion of the sample falls within the **31–40** years age group, accounting for **50%**. This indicates that the majority of the institution's employees belong to an age category that combines youth with professional maturity, which positively affects their vitality, energy, experience, and expertise, thereby contributing to enhanced job performance and achievement levels.

Concerning educational qualification variable, it is evident that the vast majority of employees are engineers or holders of bachelor's and master's degrees, representing **53.3%**. This reflects the high academic level of the institution's workforce and highlights that the Operational Directorate of Algérie Télécom in Djelfa prioritizes attracting and employing highly qualified and competent personnel, which contributes to enhancing performance quality and achieving organizational objectives.

Regarding years of service, most employees have experience ranging from **6** to **11** years, representing **50%** of the sample, followed by employees with more than **21** years of experience at **23.3%**. This indicates that the institution possesses a significant reserve of experience and seniority in its field of activity, reflecting its reliance on experienced personnel to manage operations and ensure continuity in organizational performance.

2.Levels of the Study Variables and Their Dimensions

This section aims to present the levels of both Information Technology and Organizational Development at the Operational Directorate of Algérie Télécom in Djelfa, by calculating the means and standard deviations.

Table 04: Means, Standard Deviations, and Levels of Agreement for the Study Variables

Dimensions and Variables	Mean	Standard Deviation	General Trend	Percentage
Software	4.32	0.92	High	%86.4
Networks	4.20	0.96	High	%84
Databases	4.31	0.71	High	%86.2
Information Technology	4.28	0.69	High	%85.6
Organizational Development	4	0.85	High	%80

Source: Prepared by the researchers based on the outputs of SPSS v26.

Based on Table (04), it is evident that the level of Information Technology was high from the perspective of the study sample. This is reflected in the weighted overall mean of this variable, which reached **4.28** with a percentage of **85.6%** and a standard deviation of **0.69**, indicating that there was no significant variation in the responses of the participants regarding this variable.

Similarly, the dimensions of Information Technology namely Software, Networks, and Databases were also rated at a high level by the study sample. This is reflected in their respective weighted means, which were **4.32**, **4.20**, and **4.31**, with percentages of **86.4%**, **84%**, and **86.2%**, and standard deviations of **0.92**, **0.96**, and **0.71**.

As for the level of Organizational Development, it was likewise high among the study participants, according to the weighted overall mean, which reached **4**, with a percentage of **80%** and a standard deviation of **0.85**.

It can be concluded that the level of Information Technology utilization within the Operational Directorate of Algérie Télécom in Djelfa was achieved at a high degree, reflecting the availability of the necessary technical infrastructure and its optimal use in the daily operations of the organization. Moreover, the level of Organizational Development was also high, indicating the presence of an appropriate organizational climate that supports innovation and the improvement of internal processes.

3. Testing the Study Hypotheses

- **Testing the First and Second Hypotheses**
 - The first hypothesis states that: **There is a high and statistically significant level of Information Technology from the perspective of the employees at the Operational Directorate of Algérie Télécom in Djelfa.**
 - The second hypothesis states that: **There is a high and statistically significant level of Organizational Development from the perspective of the employees at the Operational Directorate of Algérie Télécom in Djelfa.**

Since the data for both Information Technology and Organizational Development variables do not follow a normal distribution, the non-parametric **One-Sample Wilcoxon test** will be used to

examine whether there is a statistically significant difference between the respondents' calculated mean and the hypothetical mean (3)¹.

Table 05: Results of the First and Second Hypotheses

Variable	Calculated Mean	Hypothetical Mean	One-Sample Wilcoxon Test Value	Significance Level (Sig)
Information Technology	4.28	3	387.000	0.000
Organizational Development	4	3	387.000	0.000

Source: Prepared by the researchers based on the outputs of SPSS v26.

The results presented in Table (05) indicate that the mean evaluation of Information Technology by the study sample is higher than the hypothetical mean (3), as is the mean evaluation of Organizational Development. The test value reached 387.000 with a significance level of 0.000, which is below the predetermined significance threshold (0.05). This indicates a high and statistically significant level of both Information Technology and Organizational Development among the respondents. Accordingly, the first and second hypotheses are accepted.

- **Testing the Third Hypothesis**

- The third hypothesis states that: **There is a strong and positive correlation, statistically significant at the significance level ($\alpha \leq 0.05$), between Information Technology and Organizational Development at the Operational Directorate of Algérie Télécom in Djelfa.**

To determine the nature of the correlations among the sub-variables and to assess the accuracy of the test, it is necessary to calculate the **Spearman's rho** correlation coefficient, since none of the variables follow a normal distribution. The following table presents the results:

¹ The Hypothetical Mean: The hypothetical mean is used when applying the One-Sample Wilcoxon test, as it aims to detect whether there is a significant difference between the respondents' actual mean responses for each dimension of the questionnaire and the hypothetical mean (constant). In other words, it serves to examine whether the respondents' answers show a statistically significant difference between their calculated mean and the fixed value (hypothetical mean). The theoretical value of the hypothetical mean is determined according to the following formula: **Hypothetical Mean = $H+L/2$** , where: **H**. represents the coded value of the upper limit of the scale, **L**. represents the coded value of the lower limit of the scale. In this study, the respondents' scale is a five-point Likert scale; therefore, the hypothetical mean is: **$H+L/2=5+1/2=3$**

The value 3 also represents the midpoint (neutral point) on the five-point scale used in the questionnaire.

Table 06: Spearman's Rho Correlation Values between Information Technology Dimensions and Organizational Development

Information Technology Dimensions	Organizational Development	Sig
Software	0.509**	0.004
Networks	0.461*	0.010
Databases	0.677**	0.000
Information Technology	0.711**	0.000
Degrees of Freedom	df=n-2=30-2=28	//
Correlation is significant at the 0.01 level ($\alpha \leq 0.01$) (**)		
Correlation is significant at the 0.05 level ($\alpha \leq 0.05$) (*)		

Source: Prepared by the researchers based on the outputs of SPSS v26.

Based on Table (06), it is evident that there are positive and statistically significant correlations between the dimensions of Information Technology and Organizational Development. A moderate and statistically significant correlation was observed between the Software dimension and Organizational Development, with a correlation coefficient of **0.509** at a significance level of **0.004**. Similarly, the Networks dimension showed a moderate positive correlation with Organizational Development, with a correlation coefficient of **0.461** at a significance level of **0.010**. The Databases dimension, however, demonstrated the strongest correlation with Organizational Development, with a correlation coefficient of **0.766** at a significance level of **0.000**.

At the overall level, there is a strong and statistically significant positive correlation between Information Technology and Organizational Development, with a correlation coefficient of **0.711** at a significance level of **0.000**. This confirms the pivotal role of Information Technology in supporting and achieving Organizational Development within the Operational Directorate of Algérie Télécom in Djelfa.

Accordingly, there is a clear justification for accepting the third hypothesis, which states that there is a strong and positive correlation between Information Technology and Organizational Development at the Operational Directorate of Algérie Télécom in Djelfa.

- **Testing the Fourth Hypothesis**

- The fourth hypothesis states that: **There is a statistically significant effect, at the significance level ($\alpha \leq 0.05$), of Information Technology on Organizational Development at the Operational Directorate of Algérie Télécom in Djelfa.**

This section aims to test the fourth hypothesis. To examine this hypothesis, which represents the core of the study, it is first necessary to ensure the validity of the model for testing it. This is achieved by relying on the results of the **Analysis of Variance**, in addition to the **simple linear regression**

coefficient, in order to determine the effect of the independent variable (**Information Technology**) on the dependent variable (**Organizational Development**).

Table 07: Regression Analysis Results to Verify the Validity of the Model for Testing the Effect of Information Technology on Organizational Development

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F Value	Coefficient of Determination (R ²)	Significance Level (F)
Regression	1	6.788	6.788	13.337	0.323	0.001
Error	28	14.251	0.509			
Total	29	21.039				

Source: Prepared by the researchers based on the outputs of SPSS v26.

Based on Table (07), it is evident that the significance level (**F**) is **0.001**, which is below the predetermined threshold ($\alpha \leq 0.05$). Accordingly, we conclude that the model is valid for testing this hypothesis.

The table also shows that the Information Technology variable explains approximately **32.3%** of the variance in the dependent variable (**Organizational Development**). This represents an acceptable explanatory power, indicating that there is a statistically significant effect on the dependent variable, and that this effect is substantial and meaningful.

Table 08: Regression Analysis Results to Verify the Validity of the Model for Testing the Effect of Information Technology on Organizational Development

	Regression Equation		F value		T-test		Correlation Coefficient (R)	Coefficient of Determination (R ²)
	Coefficient (B)	Standard Error	F Value	Level (F)	T Value	Level (T)		
Constant (Other factors)	1.003	0.833	13.337	0.001	1.205	0.238	0.568	0.323
Information Technology	0.703	0.192			3.652	0.001		

Source: Prepared by the researchers based on the outputs of SPSS v26.

Based on Table (08), the regression coefficient (**B**) is estimated at **0.703** at a significance level of $\alpha \geq 0.05$, indicating a positive effect of Information Technology on Organizational Development. This is supported by a **T-value** of **3.652** with a significance level of **0.001**, which is lower than the adopted

significance level (**0.05**). Moreover, the correlation coefficient (**R**) is positive, with a value of **0.568**, indicating a statistically significant and acceptable correlation of **56.8%** between Information Technology and Organizational Development. The coefficient of determination (**R²**) is **0.323**, meaning that **32.3%** of the variance in Organizational Development can be attributed to the influence of Information Technology, while the remaining variance is explained by other factors.

Accordingly, these results justify accepting the fourth hypothesis, which states that Information Technology has a statistically significant effect at the significance level $\alpha \geq 0.05$ on Organizational Development at the Operational Directorate of Algérie Télécom in Djelfa.

From this, we derive the following equation:

$$Y = a + Bx_1$$
$$Y = 1.003 + 0.703x_1$$

V.CONCLUSION:

Information Technology is considered a fundamental pillar in supporting the process of organizational development within an organization, as it provides the necessary means to analyze and process information efficiently, effectively, and rapidly. It also facilitates the connection between administrative structures and eases the exchange of data and information among them, in addition to its capacity to handle vast amounts of data. Information Technology is manifested as an integrated system comprising key components such as software, networks, and databases, which collectively contribute to enhancing the overall performance of the organization. It also aids in the development of work strategies and increases organizational flexibility to respond to rapid environmental changes.

Recent studies indicate that the most prominent effects of Information Technology on organizational development include fostering innovation, increasing work efficiency, and achieving competitive advantage and sustainability. This study aimed to evaluate these effects practically within the Operational Directorate of Algérie Télécom in Djelfa, yielding the following results:

- A high and statistically significant level of Information Technology from the perspective of employees at the Operational Directorate of Algérie Télécom in Djelfa.
- A high and statistically significant level of Organizational Development from the perspective of employees at the Operational Directorate of Algérie Télécom in Djelfa.
- A moderate and positive correlation between the software dimension and Organizational Development at the Operational Directorate of Algérie Télécom in Djelfa.
- A moderate and positive correlation between the networks dimension and Organizational Development at the Operational Directorate of Algérie Télécom in Djelfa.
- A strong and positive correlation between the databases dimension and Organizational Development at the Operational Directorate of Algérie Télécom in Djelfa.
- A strong and positive correlation between Information Technology overall and Organizational Development at the Operational Directorate of Algérie Télécom in Djelfa.

- A statistically significant effect of Information Technology on Organizational Development at the Operational Directorate of Algérie Télécom in Djelfa.

VI.Recommendations:

Based on the findings of this study, the following recommendations can be proposed:

- Optimize the use of Information Technology by adopting modern digital technologies within the Operational Directorate of Algérie Télécom in Djelfa.
- Continuously improve the Directorate's software, update networks, and provide sufficient tools to facilitate operations and accelerate the exchange of information.
- Strengthen the Directorate's databases by focusing on their accuracy and quality, and integrating them with artificial intelligence.
- Place greater emphasis on Information Technology in the organizational development process within the Directorate by supporting all administrative and structural operations with modern systems and technologies.
- Support the performance evaluation process using modern digital technologies to accurately and quickly determine the outcomes of development initiatives within the Directorate and work on improving them.

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