RESEARCH ARTICLE

Challenges and prospects of using an enterprise resource planning (ERP) system to digitize the telecommunications sector A case study of Algeria Telecom El Oued Agency

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Abstract

This study aimed to identify the factors of success or failure of the implementation of the enterprise resource planning (ERP) system by targeting the Algeria Communications Corporation, and in particular the El Oued Communication Agency. Interviews, questionnaire, and enterprise documents in order to identify the reality of this system between the enterprise resource planning system and the factors contributing to the success or failure of its implementation; In order to analyze the questionnaire, it was relied on descriptive statistical analysis using the SPSS V25 program, and among the most important results we reached is that there is a use of all units of the ERP system in the institution under study, and that the latter is based on certain indicators for the success of the implementation of the system, and they differ in terms of The importance and dependence on those reached in previous studies.

As the results showed the comprehensiveness of the application of the ERP system to all the main departments of the organization and that the senior management, system suppliers, the effectiveness of the end user and the information technology department, contributed to the success of the implementation of the ERP system The place of study.

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Introduction

Our contemporary world has witnessed numerous changes in all economic, social, political, scientific, and technological fields. Organizations have also witnessed a rapid movement to develop new methods for growth and expansion due to competition at various levels. This is due to the information and communications revolution and the technological developments it has brought about, which have increased the complexity of the business environment for organizations. Consequently, organizations have increasingly needed advanced information systems

that meet customer requirements, increase profitability, and improve performance. Since the emergence of information systems in the 1950s, they have proven their effectiveness in business and their ability to process, store, and disseminate vast amounts of information and data, becoming one of the most important tools for modern management. Attention then shifted to information systems, which became the primary source of economic power in post-industrial societies, especially after their development in response to market demands and the advantages they offer. Enterprise Resource Planning (ERP) is the most recent of these systems. It first appeared in the 1960s, providing the integration that is the foundation for implementing information technology and providing a shared database. It began specifically with a focus on warehouse management and production plans. Gradually, after a series of modifications that contributed to its development, applications were added that encompassed the rest of the organization's operations, such as sales, finance, and others. Information technology played a major role in developing the ERP system to include all of the organization's operations in a single system and link them to a central database. This primarily contributed to improving the speed and accuracy of information transfer and exchange among users of this system, which achieved numerous benefits for the organizations that implemented it that far exceeded the cost of its implementation, and on several levels, such as financial, organizational, and human. Modern organizations in various fields, whether industrial, commercial, or service-oriented, employ enterprise resource planning (ERP) systems as software designed to create integration between activities by linking various functions within the organization. This integration facilitates decision-makers' access to information and data for various departments quickly and easily, with accuracy and timeliness. The enterprise resource planning (ERP) system aims to unify financial and non-financial operations, reduce operating costs, and facilitate rapid communication within organizations, which increases operational efficiency and effectiveness. It also helps all departments connect with each other through a single central database.

For an organization to sustain itself and establish a presence on the scene, it needs to investigate the factors contributing to its success in order to achieve its goals. The organization's goals may vary and multiply, but in general, the primary goal of an organization remains achieving economic efficiency, which can only be achieved through effective management. For effective management, an enterprise resource planning (ERP) system is essential.

What are the factors contributing to the success or failure of ERP system implementation at Algeria Telecom?

To better understand the topic, we will pose a set of sub-questions stemming from the main question, which the study revolves around and focuses on answering:

Does the organization use an ERP system across all departments (finance and accounting, human resources, purchasing and supply chain, and marketing?

Do each of the factors (senior management, supplier support, end-user effectiveness, and IT) contribute to the success or failure of an ERP implementation?

Study Hypotheses:

Based on the study's problem and the previous sub-questions, we formulate the following hypotheses, which represent hypothetical answers to the questions of the problem:

1.The institution does not implement all branches of the ERP system except for the finance and accounting department;

2.Senior management contributes to the success of the ERP system implementation;

3.Support from system suppliers contributes to the success of the ERP system implementation;

4.The effectiveness of the end user contributes to the success of the ERP system implementation;

5.The IT department contributes to the success of the ERP system implementation.

Justifications for choosing the topic: There are several motives and reasons that lead us to research this topic over other scientific topics. In addition to its importance, there are objective and subjective reasons:

Objective reasons:

-The increasing role that the ERP system has come to play;

-Revealing the reality of ERP system use in the institution;

-Shedding light on the factors contributing to its success in Algerian institutions;

-Contributing to enriching the topic of ERP systems, which remains an important topic worthy of research and study;
-Adding a new reference on the subject to the university library.
Personal reasons:
-The desire to research modern topics, especially the enterprise resource planning system, which is a critical system in managing an organization

-The desire to study the reality of implementing an ERP system in an Algerian organization;

-ERP is a relatively new system in Algeria, required by the labor market and imposed by the new business environment. This topic is one of the most attractive and new research topics, yet it still requires further research to fully understand it.

Study objectives:
The overall aim of the study is to answer the sub-questions, then address the main problem and test the hypotheses presented to prove or disprove their validity. This aims to examine the extent to which the system is implemented and comprehensive across all departments of the organization. Furthermore, it highlights the factors contributing to the success or failure of the ERP system, including (senior management, system supplier support, end-user effectiveness, and the IT department). This is achieved by providing a picture of the reality of the ERP system within Algeria Telecom.
Other theoretical objectives of the study include:
- Clarifying the concept of the ERP system, its components, the benefits of its implementation, and the obstacles facing its implementation, given that it is the most modern management method in modern organizations;
- Determining the extent to which the ERP system is comprehensive across all departments of the organization;
- Proposing the most appropriate model to avoid failure in implementing the ERP system, based on the results.

Significance of the Study:
The importance of this topic lies in drawing attention to the importance of the ERP system in the life and growth of an organization. This is achieved by highlighting the need to adapt and adjust to the current conditions of an environment characterized by constant change and dynamism. Several points revolve around the importance of the study, as follows:

- The importance of this study is demonstrated by the novelty of the topic and its various components, as it combines variables of extreme importance at this time: the ERP system with the factors that led to the success of its initial implementation failure. This topic can also be a new addition and an effective contribution to enriching the library and enlightening the reader about the impact the ERP system has had on the Algerian organization.
- The importance of the study also lies in the extent to which the system is applied to the main departments of Algeria Telecom.
- Limits of the Study: In order to encompass the research problem and understand its various aspects, it is necessary to establish limits for the analysis to be precise and avoid ramifications. The researchwasdefined by the followingaspects:
- Spatial Limits: The theoretical aspect of the study was applied to the reality of a public service organization, Algeria Telecom, in the Wilaya of El Oued - Municipality of El Oued. - Objective boundaries: In this study, we used two sets of concepts. The first set relates to the concept of the enterprise resource planning (ERP) system and its main components, as well as the factors contributing to the success or failure of ERP implementation.
- Human boundaries: Through a questionnaire and interview, a specific group was identified and targeted for questioning: management employees, who are the group most familiar with the factors contributing to ERP system implementation.

- Timeframe: In order to fully understand the research problem and arrive at results that either refute or confirm the proposed hypotheses, an internship period will be conducted from February 28, 2022, to April 7, 2022 (duration of 40 days)
- Study Methodology: In light of the nature of the study, the objectives it seeks to achieve, and the emphasis placed on the concept of the Enterprise Resource Planning (ERP) system by highlighting the factors for the success or failure of the system's implementation within Algeria Telecom. In answering the study's questions, we used a descriptive approach to present and analyze concepts and information specific to the research area. We also described previous studies in this field and compared them to the current study. This is on the theoretical side. As for the practical side, we relied on the case study method through pre-designed interviews based on previous studies and directed at officials from the Finance and Accounting Department, the Human Resources Department, the Purchasing and Supply Department, and the Marketing Department. A questionnaire was also designed based on previous studies, both master's theses and doctoral dissertations, for in-depth and detailed research of a specific case on the ground and the application of the study's findings. The study relied on the responses of management officials in the institution under study. According to the researchers, the interview and questionnaire method serves the purpose of the research, leading to more objective results.

First: Basic Concepts of Enterprise Resource Planning (ERP)

The term is an abbreviation for Enterprise Resource Planning (ERP), meaning planning for managing a company's resources. It addresses all vital operations within an organization, from purchasing and selling, accounting, and warehouse management, to production, maintenance, asset management, project management, human resources management, customer and supplier management, etc., as a single unit.[1]

Legge & Skok (2002) indicated that ERP systems are a set of subsystems that unify and integrate multiple business activities, such as production, planning, control, and inventory, with accounting and finance functions, with the goal of improving the flow of financial procedures. Within the same framework, ERP systems are defined as a set of integrated systems that aim to collect, process, and store data on business activities and provide customized reports and information to enable managers and external parties to evaluate the efficiency and effectiveness of business operations within organizations. [2]

Through these definitions, we can extract a comprehensive and comprehensive definition, which is that "the enterprise resource planning system is an information system (automated) that contains a comprehensive, central database, which all units and departments of the organization can access for the purpose of updating, retrieving, or examining information. Its goal is to unify information in the organization and enable senior management to make sound decisions in real time."[3]

Main Sections of an Enterprise Resource Planning System

An Enterprise Resource Planning (ERP) system is a group of systems operating within a shared database. This system often includes the following functions:[4]

- Financial Resource Planning (ERP) System: This system provides a comprehensive and analytical overview of an organization's financial activities. It combines applications that automate general and analytical accounting,

[1] Tamer Rashad Barakat, The World of Enterprise Resource Planning, no edition, no publishing house, 2012, p. 5.
[2] Khalil Salman Khadija, Awda Bani Khaled Tariq, The Level of Adoption of Enterprise Resource Planning (ERP) and Its Impact on Achieving Accounting Information System (AIS) Quality in the Jordanian Industrial Sector: Perceptions of Internal Stakeholders, Arab Journal of Management, Volume 40, Issue 2, Faculty of Economics and Administrative Sciences, Al al-Bayt University, Jordan, June 2020, p. 163.
[3] Qaddouri Muhammad Al-Saeed, The Impact of Implementing Enterprise Resource Planning (ERP) on Human Resource Management Functions, Master's Thesis in Human Resource Management, Faculty of Economics, Business, and Management Sciences, University of KasdiMerbah, Ouargla, 2017-2018, p. 11.
[4] Farzat Muhammad Ayham, Success Factors of ERP Implementation in Terms of Organizational Relevance and User Satisfaction, a thesis submitted for a Master's Degree in Business Administration, Syrian Virtual University, 2018, p. 32.

accounting and financial management, treasury resources, internal auditing and financial analysis, tax declaration, and bank coverage.

- Sales and Distribution System: This section covers everything related to selling goods to customers, recording sales orders, shipping the goods, and sending invoices to the customer. After entering the sales order, we verify the customer's credit standing and the availability of the requested goods. The customer's order is then registered. If the customer is a new customer, their data is entered into the main database before the sales order is entered. Regarding the shipping process, a schedule of orders is prepared, prepared in the warehouse, and then recorded. This reduces inventory, and invoices are prepared according to the system under which the organization operates.

- Materials Management System (Procurement): This is the supply system and includes supplier cards, purchase orders (before shipment), and purchase offers (before they are converted into purchase orders, i.e., quotes). It also shares with other departments the definition of the bill of materials, purchase and selling prices, and the addition of purchase costs.

External inputs to this system include information provided by suppliers about materials and their costs (via email). Shipping and clearance costs are also provided by the Logistics Support Department via inbound email, which in turn receives external inputs from customs, shipping and clearance service providers, and others. Internal sources include inventory system reports and the sales system for replenishment.

- Human Resources Management System: Some define the Human Resources Management System as an integrated system that allows the acquisition, processing, and storage of all information related to human resources, including predictive employee management, employee management, training process management, competency management, employee career paths, and wage management. - Business Intelligence Tools: Business intelligence is based on what is called a data warehouse and a set of analysis and presentation tools that together form an integrated system that works to maximize the value of information by transforming data into information that contributes to helping in decision-making.

Reasons for Adopting an ERP System

There are many reasons for adopting an ERP system, and they can be divided into technical and administrative reasons:[5]

First: Administrative Reasons

- Enabling business growth;

- Improving the efficiency of system operations;

- Reducing data processing time and improving retrieval processes;

- Saving time and improving the quality of decision-making within the organization;

- Obtaining more accurate and comprehensive information to solve problems;

- Improving the organization's image among its various stakeholders;

[5] Ahmed Qaid Nour El Din, Halili Islam, Contribution of Enterprise Resource Planning (ERP) System in Activating the Accounting Information System in the Economic Institution, Journal of Banking, Financial Economics and Business Administration, Volume 5, Issue 2, University of Mohamed Khider, Biskra, 2019, p. 162.

- Facilitating the exchange of information between various departments and branches.

Second: Technical Reasons

- Solving the Y2K problem;

- Replacing traditional systems within the organization;

- Maintaining software by utilizing more experienced personnel;

- Avoiding data duplication;

- Reducing the number of errors;

- Reducing setup time;

- Integrating applications across operations.

ERP Principles

The most important ERP principles can be identified through:[6]

1- System Quality: System quality is one of the most important principles to consider when planning an organization's resources and is the key factor for its success. System quality depends on the level of proficiency and technical skill of the system designers and the effectiveness of communications between the parties implementing it.

2- Information Integration: Integration is one of the principles of ERP implementation. The general trend is toward implementing a unified database with the aim of eliminating conflicting information, especially in manufacturing and production organizations. This approach also seeks to establish timely communication channels between the organization's departments and link all components of the organization's organizational structure in a manner that supports integration.

3- Information Quality and Accuracy: Information quality is one of the fundamental principles of an ERP system, given its importance as the primary source for management decision-making. Accuracy and reliability are required to ensure that management decisions are consistent with the practical reality and the organization's aspirations. 4- Training: Another principle that has been the focus of many studies is training. Many studies have highlighted the benefits of focusing on human resources in light of the transition from traditional to advanced systems, and how the human factor has a direct impact on the success of advanced information systems, especially when employees lack experience with information systems. This can lead to rejection or, at the very least, a slowdown in adopting the new system.

5- Institutional Performance: Despite the differences in studies on how to measure institutional performance, most academic studies agree that it can be evaluated through two main aspects: the material or tangible aspect, and the non-material or intangible aspect.

Essential Requirements for the Success of an ERP System[7]

[6] Munir Al-Janbaz Abdul Majeed Muhammad, previous reference, pp. 48-49.
[7] Atayet Allah Rabie, The Impact of Using Enterprise Resource Planning System on the Functional Performance of the National Insurance Company, Master's Thesis in Management Sciences, Faculty of Economics, Business and Management Sciences, University of KasdiMerbah, Ouargla, 2015-2016, p. 4.

First: Senior Management Support

The successful implementation of an ERP system depends on strong and consistent support from senior management. This support and commitment will trickle down to other management levels, reflecting the level of commitment within the organization as a whole. Without good leadership and support from senior management, individuals throughout the organization will struggle to discover new ways of doing business, creating further chaos within the organization. What highlights the need for senior management support is that implementing an ERP system is not just a software issue, but rather a matter of changing the organization's systems and processes. This requires adequate support from all levels of management for the successful implementation of an ERP system.

Second: Support from the system's suppliers.

Choosing the right role will ensure the success of the system implementation, especially if the system vendors are responsive to the organization's requirements and inquiries related to the system implementation, on the one hand, and possess the technical competence and knowledge of administrative processes and mechanisms, on the other hand. The participation of the system vendors in the organization's system implementation will contribute to success. Furthermore, the system vendors must follow the implementation stages step by step, especially the initial stages, as this will enhance the organization's confidence in the system. Their support should not stop there; they must allocate and organize training courses for system users, especially the personnel working within it.

Third: Compatibility between the ERP system and the organization's processes

Organizations must ensure that the processes built into this system are compatible with their organizational structure. They must also ensure that the processes built into the system are compatible with all professional practices within the organization, and that they are able to meet the need for integration across all departments and functions. Finally, the processes built into the system must be compatible with the needs of the organization's oversight process, as this will enable decision-makers to identify the strengths and weaknesses of all activities and operations. Fourth: Information Department Competence

This refers to the skills, knowledge, and professional experience in information technology and computers possessed by IT department personnel, as well as their ability to support various systems and departments with development, maintenance, and updates. The competence and behavior of IT department personnel also contribute to motivating ERP system users to communicate with employees and receive user feedback to improve data entry and output.

Fifth: Business Process Reengineering

Redesigning business processes to achieve significant improvements in several areas, including quality, cost, service, and basic speed. An organization's ability to adapt to changes is a key factor in ensuring the successful implementation of enterprise resource management. The reason companies refrain from undertaking multi-million-dollar ERP projects is due to the profound changes in individual roles and responsibilities and software modifications to accommodate existing procedures. Therefore, reengineering facilitates the tasks associated with using ERP systems.

Third: Results of Testing the Study Hypotheses

After analyzing the initial data from the questionnaire, this section will test the validity of the study hypotheses by determining their acceptance or rejection using appropriate statistical methods.

First: Results of the Normal Distribution Test

To verify the objectivity of the study results, we relied on the normal distribution test for the data. This test is used to determine whether the data follow a normal distribution or not, which in turn affects the selection of the tests required to test the hypotheses. The following table summarizes the most important results.

Table No. (01): Testing the Normal Distribution of Data

Shapiro-Wilk		Study axes
Sig	valueZ	
0.086	0.877	The questionnaire as a whole

Table No. (01): Testing the Normal Distribution of Data

Source: Prepared by the researchers based on the outputs of the SPSS.V25 program.

From the table above, we find the significance level for all questionnaire axes at 0.086, which is greater than 0.05. Therefore, the sample data studied follows a normal distribution. From this, we conclude that the data for all questionnaire dimensions are normally distributed, and therefore parametric tests can be conducted on them. This necessitates relying on parametric tests to answer the hypotheses.

Hypothesis text: The institution does not implement all branches of the ERP system except for the Finance and Accounting Department.

To test this hypothesis, an interview was used to answer the questions listed under each department of the institution.

Finance and Accounting Department:

1) Does the ERP system contribute to the preparation of financial statements on time, with the necessary speed and accuracy?

Yes, the ERP system contributes to the preparation of financial statements on time, with the necessary speed and accuracy.

2) Does the ERP system contribute to the recording of data across all departments simultaneously?

Yes, the ERP system contributes to recording data across all departments simultaneously.

3) Does the ERP system help adopt advanced financial accounting practices that comply with international accounting standards?

Yes, the ERP system helps adopt advanced financial accounting practices that comply with international accounting standards.

4) Does the ERP system help meet necessary receivables on time?

Neutral, as it receives instructions from the user to meet necessary receivables.

5) Does the use of the ERP system lead to an integrated system for managing and storing documents and data?

Yes, the use of the ERP system leads to an integrated system for managing and storing documents and data.

6) Does the use of the ERP system aim to provide a true picture of the organization's financial position?

Yes, the use of the ERP system aims to provide a true picture of the organization's financial position.

7) Does the ERP system help in preparing the company's budget better?

Yes, the ERP system helps in preparing the company's budget better, but if it exceeds the threshold of 2 billion centimes, it is sent to the main management. By analyzing the interview results, the results confirmed that the ERP system contributes to the timely preparation of financial statements with the necessary speed and accuracy. It also contributes to the simultaneous recording of data across all departments. The ERP system also helps in adopting advanced financial accounting practices that comply with international accounting standards. It aims to provide a true picture of the organization's financial position by better preparing the company's budget and managing human resources effectively by placing the right person with the right skills and education in the right position.

Human Resources Department:

1) Does using an ERP system help in placing the right person with the right skills and education in the right position at the right time?

Yes, using an ERP system helps in placing the right person with the right skills and education in the right position at the right time because it mobilizes the financial and human resources across the organization's departments.

2) Did using an ERP system result in a faster payroll process?

Yes, using an ERP system results in a faster payroll process.

3) Does the ERP system contribute to granting and tracking vacation and sick leave?

Yes, the ERP system contributes to granting and tracking vacation and sick leave on a daily basis.

4) Does the ERP system continuously track and update employee personal data?

Yes, the ERP system continuously and periodically tracks and updates employee personal data.

5) Does the ERP system contribute to integration and coordination between the various departments of the HR management units and other departments?

Yes, the ERP system contributes to integration and coordination between the various departments of the HR management units and other departments.

6) Does the ERP system aim to have a database to collect all laws, regulations, and instructions related to regulating employee affairs in the organization for reference when needed?

Yes, the ERP system aims to have a database to collect all laws, regulations, and instructions related to regulating employee affairs in the organization for reference when needed.

7) Does the ERP system contribute to accelerating the data retrieval and processing process?

Yes, the ERP system contributes to accelerating the data retrieval and processing process.

Purchasing and Supply Department:

1) Does the use of an ERP system contribute to good control of purchasing operations?

Yes, the use of an ERP system contributes to good control of purchasing operations.

2) Does the use of an ERP system contribute to reducing storage costs?

Yes, the use of an ERP system contributes to reducing storage costs.

3) Does the ERP system contribute to organizing inventory operations effectively?

Yes, the ERP system contributes to organizing inventory operations effectively.

4) Does the use of an ERP system contribute to supporting advanced communication with suppliers?

Yes, the use of an ERP system contributes to supporting advanced communication with suppliers.

5) Does the ERP system provide accurate control over all inventory?

Yes, the ERP system provides accurate control over all inventory.

Analysis of the interview results confirmed that the ERP system contributes to good control of purchasing operations, reducing storage costs, and contributing to effective inventory organization. It also supports advanced communication with suppliers and accurate inspection of all inventory.

By analyzing the interview results, the results confirmed that the ERP system contributes to developing marketing plans and policies, in addition to preparing periodic and annual sales reports. Responding to customer requests is quick and immediate, and the service and product are delivered to consumers at the right place and time. Accordingly, the results of the first sub-hypothesis test: We do not accept the hypothesis statement: The institution does not implement all branches of the ERP system except for the finance and accounting department.

Results of the second hypothesis test:

Hypothesis statement: Senior management contributes to the successful implementation of the ERP system.

To test this hypothesis, a one-sample t-test (T) was used to compare the overall mean of responses (the total mean of the items in the first axis) with the hypothetical mean 3 at a significance level of 0.05 according to SPSS. The following table shows the results of this test:

Table (2): One-sample t-test to compare the mean of responses with the hypothetical mean (the second hypothesis)

Test decision	confidence level %95		The difference between the two averages	Significance level sig	degrees of freedom	Calculated T value
	Maximum value	Minimum value				
acceptance	-0,1955	-0,5712	-0,38333	0,000	29	-4,173

Source: Prepared by the researchers based on SPSS V25 outputs.

The results shown in the table above show that the significance level was estimated at (Sig=0.000), which is less than the assumed standard error level (α≤0.05). According to the decision rule adopted in testing this hypothesis, it can be said that senior management contributes to the success of ERP system implementation. The table also shows the difference between the general and hypothetical arithmetic means, estimated at (-0.38333). This difference is within the range [0.5712-0.1955] at a confidence level of (95%), indicating that the overall mean of the responses exceeds the hypothetical mean (3). The value of the general arithmetic mean for the axis, estimated at (2.61), is within the range [2.61-3], representing a high level of agreement regarding the items of the first axis: Senior Management.

- Based on the results of testing the second sub-hypothesis: We accept the text of the hypothesis: Senior management contributes to the success of ERP system implementation.

1. Test results Hypothesis 3

Hypothesis text: System vendor support contributes to the success of ERP system implementation.

To test this hypothesis, a one-sample t-test (T) was used to compare the overall mean of responses (the total mean of the items in the second axis) with the hypothetical mean 3 at a significance level of 0.05, according to SPSS. The following table shows the results of this test:

Table (3): One-sample t-test to compare the mean of responses with the hypothetical mean (Hypothesis 3)

Test decision	confidence level %95		The difference between the two averages	Significance level sig	degrees of freedom	Calculated T value
	Maximum value	Minimum value				
acceptance	-0,2516	-0,6150	-0,43333	0,000	29	-4,878

Source: Prepared by the researchers based on SPSS V25 outputs.

The data in the table above indicate that the significance level was estimated at (Sig=0.000), which is less than the assumed standard error level (α≤0.05). Therefore, it can be said that the support of system suppliers contributes to the success of ERP system implementation. The table also shows the difference between the general and hypothetical arithmetic means, estimated at (-0.43333). This difference is within the range [0.6150-0.2516] at a confidence level of (95%), and indicates that the general mean of the responses exceeds the hypothetical mean (3). The value of the general arithmetic mean for the axis, estimated at (2.56), is within the range [2.61-3], representing a high level of agreement regarding the items in the second axis, the support of system suppliers.

1. Results of testing the fourth hypothesis

Hypothesis statement: End-user effectiveness contributes to the success of ERP system implementation.

To test this hypothesis, a one-sample t-test (T) was used to compare the overall mean of responses (the total mean of the items in the third axis) with the hypothetical mean 3 at a significance level of 0.05 according to SPSS. The following table shows the results of this test:

Table (4): One-sample t-test to compare the mean of responses with the hypothetical mean (the fourth hypothesis)

Test decision	confidence level %95		The difference between the two averages	Significance level sig	degrees of freedom	Calculated T value
	Maximum value	Minimum value				
acceptance	-0,2452	-0,5381	-0,39167	0,000	29	-5,470

Source: Prepared by the researchers based on SPSS V25 outputs.

The results of the third hypothesis test confirmed that the significance level was estimated at (Sig=0.000), which is less than the assumed standard error level (α≤0.05). Therefore, it can be said that end-user effectiveness contributes to the success of ERP system implementation. The table also shows the difference between the general and hypothetical arithmetic means, estimated at (-0.39167). This difference is within the range [0.39167-0.2516] at a confidence level of (95%), indicating that the overall mean of the responses exceeds the hypothetical mean (3). The overall arithmetic mean for the axis, estimated at (2.56), is within the range [2.61-3], representing a high level of agreement regarding the items in the second axis, "Supplier Support for the System."

- Based on the results of the fourth sub-hypothesis test: We accept the hypothesis: End-user effectiveness contributes to the success of ERP system implementation.

1. Results of Testing the Fifth Hypothesis

Hypothesis text: End-user effectiveness contributes to the success of ERP system implementation.

To test this hypothesis, a one-sample t-test (T) was used to compare the overall mean of responses (the total mean of the third axis items) with the hypothetical mean 3 at a significance level of 0.05, according to SPSS. The following table shows the results of this test:

Table (5): One-sample t-test to compare the mean of responses with the hypothetical mean (Hypothesis Five)

Test decision	confidence level %95		The difference between the two averages	Significance level sig	degrees of freedom	Calculated T value
	Maximum value	Minimum value				
acceptance	-0,2452	-0,5381	-0,39167	0,000	29	-5,470

Source: Prepared by students based on SPSS V25 outputs.

The results of the third hypothesis test confirmed that the significance level was estimated at (Sig=0.000), which is less than the assumed standard error level (α≤0.05). Therefore, it can be said that end-user effectiveness contributes to the success of ERP system implementation. The table also shows the difference between the general and hypothetical arithmetic means, estimated at (-0.39167). This difference is within the range [0.39167-0.2516] at a confidence level of (95%), indicating that the overall mean of the responses exceeds the hypothetical mean (3). The overall arithmetic mean for the axis, estimated at (2.56), is within the range [2.61-3], representing a high level of agreement regarding the items in the second axis, "Supplier Support."

- Based on the results of the fifth sub-hypothesis test: We accept the hypothesis: End-user effectiveness contributes to the success of ERP system implementation.

By presenting and analyzing the sample's responses regarding: "A Study of the Factors Contributing to the Success or Failure of Implementing a Human Resource Planning System, a Field Study of Algeria Telecom", we reached the following conclusions:

- The study results showed that the organization implements all branches of the ERP system across all its departments;
- The study results showed that senior management contributes to the success of the ERP system implementation;
- The study results indicated that the support of the system suppliers contributes to the success of the ERP system implementation;
- The study results confirmed that the effectiveness of the end user contributes to the success of the ERP system implementation;
- The study results showed that the IT department contributes to the success of the ERP system implementation.

Recommendations:

In light of the findings, some recommendations can be made:

Given that the study results indicated an impact of user training and education on the success of the ERP system implementation, the researchers recommend identifying the training needs of employees regarding how to use the ERP system to be implemented, developing their skills and capabilities through training programs to raise the learning curve, and motivating them to use the new system to avoid employee resistance, thus increasing the success rate of ERP system implementation. Based on the study results, which demonstrated the impact of senior management and project management support on the success of ERP system implementation, the researchers recommend that the organization be well-prepared for ERP implementation before implementation. This includes obtaining financial and moral support from senior management, preparing human resources, and carefully selecting systems that are appropriate for the nature of the organization's activities.

Senior management must also have a clear strategy for controlling the project's progress to ensure that the allocated budget is not exceeded and that implementation is on schedule.

Study Prospects:

Through our analysis of the subject, we discovered several points that call for opening new scientific doors and horizons for others to research and expand upon. These points are as follows:

Since the support of system providers impacts the success of ERP system implementation, decision-makers must be able to formulate better strategies to enhance ERP system implementation. At the same time, ERP system manufacturers must design their products to meet the organization's needs.

Provide technical and advisory support and user training.

Conflict of statement

There is no any conflict of interest

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