

The Role of E-services in Improving the Competitiveness of Private Universities in Syria

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Abstract- The research focuses on the role of electronic administration services in improving the performance of universities, thus increasing their competitiveness. The world today does not focus on the availability of information, but rather on how to employ this information, especially the emergence of a new life characterized by speed in all aspects of life, which requires administrations to move away from complexity and simplify procedures and principles. In administrative work, the research aimed to diagnose and know the methods used by universities in using electronic administration services to increase the efficiency of university performance and its competitiveness.

Index Terms- The service, Quality of service, Competitiveness

Introduction:

The world is facing an accelerating information and digital revolution and huge technological developments that have brought about a profound qualitative leap in all areas of business, which in turn has led to radical transformations in the practice of administrative procedures and transactions in the business environment. Many organizations have embraced modern administrative technologies and concepts such as e-management services, which aim to transform the administrative work environment from the traditional manual system to the computerized electronic system to improve the process of making and making strategic decisions as soon as possible and at the lowest cost, develop the production process, and improve the quality of service provided to beneficiaries in various fields. The quality of academic service is of strategic value to academic institutions, especially universities, as it contributes to meeting the needs and requirements of stakeholders and achieving continuous improvement in the quality of academic service provided. It is also an effective tool to improve university performance, achieve student satisfaction and achieve the objectives of the academic institution. E-management services also contribute to the development of administrative work in academic institutions.

Problem of the study:

With the world moving to electronic transactions and the rapid growth of electronic commerce and its entry into the world of economics, as one of the most important features of the modern digital economy, it has become necessary for educational institutions to pay more attention to the electronic services they provide

Despite the importance of e-services in improving the quality of university performance and thus increasing its competitiveness, there are challenges facing their effective application, including the problem of study by answering the following questions:

Does the electronic infrastructure used play a role in improving the competitiveness of private universities?

Do e-payment services play a role in improving the competitiveness of private universities?

Objectives of the study:

Through our study of the role of e-services in improving the competitiveness of private universities, the objectives of the study are as follows:

First: Identifying the concept of quality of service at the university and the importance of this quality and its dimensions.

Second: Identify the principles and requirements of service quality at the university.

Fourth: Defining the concept of competitiveness and forms of competitiveness between universities.

Importance of the study:

The **theoretical importance** of the research is in the study of the quality of e-services provided by universities, as these services are one of the factors that significantly affect the improvement of the performance of universities for students and researchers, thus increasing their competitiveness.

Improving the quality of electronic services contributes to providing a comfortable and effective study environment for students, facilitating communication between students, professors and administration, and increasing the effectiveness of registration and application procedures in academic programs.

In addition, improving the quality of electronic services contributes to increasing the satisfaction of the beneficiaries of the university's services, which leads to enhancing its reputation and excellence among other universities and increasing the number of students and their involvement in its activities. Therefore, this research is important to understand how the quality of electronic services affects the performance of universities.

As for the practical importance of the study, it stems from highlighting the importance of electronic services and the results that will be achieved by answering the study's questions, achieving its previously mentioned objectives, and presenting proposals in light of the study's results that could benefit if they were taken into account, which would enable universities that provide these services to understand the needs and requirements of students and reach them faster.

Limits of the study:

Spatial limits: we limited our study to private universities in the Syrian Arab Republic located near the city of Damascus.

Time limits: The study was conducted in 2024.

Methodology of the Study:

Due to the nature of the topic under study and the information required to answer its questions and to achieve its objectives, the researcher relied on the descriptive approach in the theoretical aspect of the research by relying on many references, books, doctoral and master's theses. As for the applied aspect, he used the descriptive analytical approach in order to project the theoretical aspect of the study on the applied side through the questionnaire, where it was distributed to the research sample to answer it and the data were analyzed using statistical analysis tools.

Hypothesis of the Study:

1. There is a significant relationship between the electronic infrastructure used and improving the competitiveness of universities.
2. There is a significant relationship between electronic financial payment services and improving the competitiveness of universities.

Population and Sample:

The study population included all students enrolled in private Syrian universities located near the city of Damascus, and a random sample of 118 students was selected.

Terminology of the Study:

The service:

An activity or benefit that a party can provide to another party that is not necessarily tangible, and does not result in ownership of anything¹.

Quality of service:

That value that expresses the level or quantitative amount granted to the institution or program compared to the generally accepted standards of the institution or program, where the latter is approved by an official body, as it is measured by comparing the actual performance with the expected for this service².

Competitiveness

It is the ability to produce goods and services of good quality at the right price and at the right time more efficiently than competitors.³

Part I: Theoretical Section

E-management services in the educational sector

The shift towards the application of e-governance for higher education institutions is not optional, but has become an inevitable necessity imposed by global changes, so that it can keep pace with the various institutions operating in the same sector, because the success of the latter depends on its ability to integrate this technology into its administrative contents, and thus improve the quality of its outputs, as its application is an opportunity for higher education institutions to improve their competitiveness, in addition to increasing their ability to confront and solve all traditional management problems and reduce them.

1-1 The first topic: The emergence and concept of electronic management:

1-1-1 The emergence of electronic management.

The rapid development of information and communication technology has led to the emergence of a new model and style of management in light of the increasing competitiveness and challenge to bureaucratic administrations. It has improved the level and quality of its work and services, which is the term digital management, or e-government management. Thus, the emergence of e-government came after the rapid qualitative development of e-commerce. It emerged with the beginning of the interest of governments towards achieving transparency of dealing and deepening the use of digital technology to serve the objectives of economic, social and political development. Thus, e-government is one of the concepts of the digital revolution that leads to the knowledge age⁴.

¹Ragad Saliha, Applying the Quality System in Algerian Higher Circular Institutions: Its Prospects and Obstacles, A Field Study in the Higher Circular Institutions of the Algerian Mashreq, Thesis presented for obtaining a general doctorate in economics, University of Setif, 1, 214/213 p 5.

²Khathir Mohammed and Maraibi Asmaa, The Interactive Link between the Dimensions of Service Quality and Customer Satisfaction in the Foundation, Journal of Business Economics, Al-Majid,03 Issue,01, 2017, p. 32.

³<https://online.eou.edu/resources/article/psychology-of-competitiveness/>

⁴Abdul Wahab Sakhri, Safa Mubarak, The Role of E-governance Requirements in Enhancing the Quality of Performance, Al-Muhtaref Journal of Sports, Humanities and Social Sciences, Issue 01, 2022, p. 235.

In light of this, university e-administration is characterized by the following as an administrative process, which means that it does not fall outside the scope of administration, whether in defining goals and drawing policies, even if they are rapidly changing and directing resources according to strategic and practical options, and controlling them, as well as the distinctive capabilities of the Internet and business networks, and this explains the electronic dimension in the term e-administration.

1.1.2 The Concept of E-Governance

The concept of e-governance is a new technical management concept, which emerged as a result of the tremendous revolution in information and communication technology, as it made a qualitative leap in the work of institutions and departments and made them of high quality, efficiency and effectiveness in terms of their performance.

E-management appears to be an automated process that includes all administrative processes (planning, organizing, controlling, directing) by relying on all the necessary information technologies in order to achieve new goals in reducing paper use, simplifying procedures, eliminating red tape, and the rapid and accurate completion of tasks and transactions so that each administration is ready with the e-government later⁵.

From the above, we conclude that e-governance is the optimal use of ICT in order to facilitate and simplify procedures, reduce the use of paper and achieve management functions (planning, organizing, directing, controlling) in order to reach the objectives of the organization with outstanding performance and effectiveness.

1.1.3 Importance of E-Governance:

The importance of e-governance is as follows:

- 1.Improving the level of performance of the organization: e-administration works to improve services and simplify its procedures with less time, the highest level of performance, less effort and lower cost, which facilitates the business and transactions it provides to the beneficiaries, thus achieving communication between the organization and the beneficiaries;
- 2.Flexibility in the work of employees so that employees can easily access the internal network anywhere they may be and do their work at any time and place they want, which reduces the effort and cost in performing the work;
- 3.The participation of citizens in the institutions in which e-governance is applied by surveying their opinions and views on the services provided to them;
- 4.Facilitating methods of communication and communication between the departments and sections of the institution and beyond, accuracy and clarity in the completion of work, and the application of electronic management will reduce the use of papers in institutions, which addresses the problem of disposal, retention and documentation, and thus the need for a place to store it, which increases the positivity of the institution;
- 5.Provide better and faster services to auditors and facilitate the delivery of administrative instructions and transactions to employees, customers and auditors as well.
- 6.Rehabilitation of the workforce to keep pace with new developments in the business world.
- 7.Improving the effectiveness of performance and decision-making by making information and data available to those who want it and facilitating access to it through its presence on the internal network and the possibility of obtaining it with minimal effort through the available automated search means.
- 8.Ease of storing and maintaining data and information and protecting it from disasters and natural factors by keeping backup copies in places outside the borders of the organization, which is known as the disaster hedging system;
- 9.Direct production, according to the needs and desires of customers and consumers.

⁵Saad Ghaleb Yassin, Electronic Administration, Al-Yazouri Scientific House, Jordan ,2012, p. 10.

1-1-4 Objectives of e-governance:

E-governance aims to achieve many goals, the most important of which are the following:

1. Modernization of public administrations and their compatibility with the development of citizens' needs and their suitability for the international body.
2. Achieving transparency in the work and in the provision of public services and eliminating the bureaucracy suffered by traditional public administrations.
3. Develop and promote the principle of the permanence and continuity of the work of public administrations, by providing uninterrupted public services through the provision of electronic services 24 hours a day, 7 days a week (24hours a day/7 days a week)⁶
4. Compilation of data into a single automated information system that allows decision support at the local and central level such as: management information system, decision support system, expert systems.... etc.
5. Using the latest information and communication technology and incorporating it in the management of public administrations and creating a new culture among public officials.
6. Concentrate the decision-making process in its action points while giving greater support in its monitoring process.
7. Reducing and saving time through the speed of completion of works and the provision of public services.
8. Reducing the number of circuits that perform transactions, by exploiting modern technologies to improve new service integrations across international networks⁷
9. The performance of e-services opens the channel of communication between public administrations and citizens, providing data and information to beneficiaries and various active partners in public administrations and providing greater transparency.
10. Re-engineering the systems, procedures and models of public administrations and providing a better service at a lower cost that meets the aspirations and ambitions of the citizen as a beneficiary.

1-2 Electronic services at the university

1-2-1 What is the quality of service at the university:

The concept of quality quickly moved from the commercial field to the educational field. Technological innovations were used in the education system to meet the needs of students and society. Quality of education was considered the driving force required to effectively push the educational system to achieve its objectives and mission entrusted to it by the community and the various parties related to education. This leads us to pay attention to the issue of quality of education service and highlight it by trying to understand its nature. This topic will be clarified by addressing the following points:

The concept of quality of service at the university.

The importance and remoteness of the quality of service at the university.

Principles and requirements of service quality at the university.

1-2-2 The concept of quality of service at the university:

In light of the knowledge age we live in today, the element of quality has become necessary in various fields, especially in the educational field. Through it, we seek to achieve the objectives of educational programs in graduates in order to achieve community satisfaction. In order to

⁶Khanafif Mohammed, E-administration is a **mechanism to improve the performance of public administrations**, thesis for a doctorate, specialization in public business administration, Faculty of Economic, Commercial and Management Sciences, University of Blida 02, 2020, p. 112.

⁷Abdul Wahab Sakhri and Safa Mubarak, op. Cit., P. 241.

clarify the concept of quality of higher education service, the most important definitions will be presented in order to reach a set of characteristics.

1.2.3 Service Definition:

Both Kotler and Armstrong defined it as an activity or benefit that one party can provide to another that is not necessarily tangible, and does not result in ownership of anything⁸.

From this definition, it is noted that there are two important characteristics that distinguish service, which are intangible and decentralized service.

1.2.4 Service Quality Definition:

There is no specific agreed definition of the quality of service, so the following definitions can be developed to clarify the quality of service.

And we can define Quality of service as one of the main areas in which service organizations can distinguish themselves, which is to provide high quality continuously and in a way that exceeds the ability of other competitors⁹.

It is noted from this definition that the quality of service is a comparison between providing a distinguished service and other competitors.

It can be said that it is that value that expresses the level or quantitative amount granted to the institution or program compared to the generally accepted standards of the institution or program, where the latter is approved by an official body, as it is measured by comparing the actual performance with the expected performance of this service¹⁰.

A set of characteristics for the quality of service was extracted:

- Public purpose
- Not necessarily tangible
- Decentralized service delivery
- To be a high quality service
- It has standards approved by an official body

1-2-5 Definition of the quality of service at the university:

The quality of higher education service can be defined as follows:

A multidimensional concept that should include all education functions and activities such as: curricula, provision of services to the community, internal self-education and the identification of internationally recognized comparative standards of quality, as they refer to the set of qualities and characteristics of service that lead to student satisfaction¹¹.

It is also intended to ensure that the actual characteristics or capabilities of the graduate meet the specifications previously adopted at all stages from the stage of student enrollment to the stage of graduation in quality control in the educational service. In quality assurance in the educational service, it means ensuring that quality specifications are planted or built in each graduate of the university¹².

It is also considered to ensure education and training for students in accordance with internationally recognized laws and standards with transparency, to achieve the objectives set

⁸Ragad Saliha, Applying the Quality System in Algerian Higher Circular Institutions: Its Prospects and Obstacles, A Field Study in the Higher Circular Institutions of the Algerian Mashreq, Thesis presented for obtaining a general doctorate in economics, University of Setif, 1, 214/213 p. 5.

⁹Ragad Saliha, *ibid.*, p. 14.

¹⁰ Khathir Mohammed and Maraibi Asmaa, The Interactive Link between the Dimensions of Service Quality and Customer Satisfaction in the Foundation, Journal of Business Economics, Al-Majid,03 Issue,01, 2017, p. 32.

¹¹ Abu Qara Yousef et al., Quality and Excellence in Business Organizations, First Arabic Edition, Arab Society Library for Publishing and Distribution, Amman, 211, p. 114.

¹² Murad Sharif, Mounir Azouz, The impact of using e-learning as a tool to improve the quality assurance system of high generalization in Algeria_Case Study of the University of Messila, Maarif Journal, Department of Economic Sciences, Issue 24, p. 181.

in advance according to the tasks, according to the university's relationship with its environment and this is to develop a full range of highly heterogeneous intellectual and semi-intellectual practices¹³.

It also means the quality of the elements of the educational process consisting of the university student and university faculty members, the quality of the educational material, including university programs and books, teaching methods and teaching techniques, and the quality of the learning place in universities, colleges, libraries, computer centers, workshops, laboratories, educational halls and others¹⁴.

From the previous definitions, a set of characteristics were noted:

- Contained in all elements of the educational process.
- Has internationally recognized standards
- Student Satisfaction
- Transparency
- Quality control
- Great Quality.
- Has quality-driven performance indicators

1-2-6 Importance and dimensions of service quality at the university:

The quality of service in higher education is one of the most important specifications and features that meet the needs of society and the student and the components of the elements of the educational process, so it seemed to be of great importance to measure it taking into account the various dimensions necessary to ensure its success.

First: The importance of quality service at the university:

They can be summarized in the following points¹⁵:

- Control and development of the administrative system in the educational institution
- Upgrading students in all fields
- Controlling the complaints of students and their parents and developing appropriate solutions
- Increasing educational efficiency and raising the level of performance of employees in the educational institution
- Fulfilling the requirements of students, their parents and the community and reaching their satisfaction in accordance with the general system of the educational institution
- Enabling the educational institution to analyze problems by scientific methods
- Raising the level of students towards the educational institution by adhering to the quality system
- Coherence and integration between all teaching staff and administrators in the institution and working through the team and in the spirit of the team.

Second: Dimensions of service quality at the university

Dimensions of the quality of higher education service have been developed to be a guide for educational institutions to use in knowing the extent to which they achieve the needs of the elements of the educational process, which are shown in the following table¹⁶:

¹³ Felleg ali, Rachid Salmi, abderraouf guembour, le système d assurance qualité interne dans l enseignement supérieur_ cas de l université de média, p87.

¹⁴ Taibi Rutaiba, Quality Assurance Standards in the Electronic Circular System and their Role in Achieving the Effectiveness of the Formative Process, Afaq Journal for the Circular of the Meeting, Frozen No.,09Issue,1 p. 13.

¹⁵ Yedou Mohamed, Requirements for Quality Assurance of Higher Education in Algeria_Between Reality and Prospect, Maarif Magazine, Department of Economic Sciences, Issue, 24, p. 407.

Dimensions	Description
Technical Quality Management	<ul style="list-style-type: none"> - Employees' abilities (knowledge and skill). - Educational technology (number of computers available for use). - Physical embodiment of the service such as: lighting, ventilation, audiovisual teaching aids, libraries, parking lots, student lounges and clubs.
Functional Quality	<ul style="list-style-type: none"> - Service provider performance behaviors with students and staff (mutual respect). - The extent to which innovative teaching methods are used.
Easiness of money	<ul style="list-style-type: none"> - Hours and periods of work (distribution of work according to capabilities and capabilities and coordination of the lecture schedule). - The geographical distribution of universities or colleges to relieve pressure on one geographical area, as well as goals related to social development. - The appropriate location for the university or college and the possibility of future expansion. - Equipment, its modernity and suitability (furniture, material equipment, scientific laboratories).
Reliability	<ul style="list-style-type: none"> - Ability to deliver services in a timely manner. - The extent to which the university or college is able to meet its obligations on time. - Ensure accurate performance and no errors. - The extent of the ability to provide the service in a safe and risk-free atmosphere.
Responsiveness	<ul style="list-style-type: none"> - The extent of interest in receiving inquiries and complaints and the speed of processing them. - Sensitivity to the needs and desires of beneficiaries and the labor market. - Achieving mutual communication between the university, college or beneficiaries. - The extent to which the quality chain is taken into account between workers and between them and the beneficiaries.

Table (1) Dimensions of the quality of higher education service

1-2-7 Principles and requirements of service quality at the university:

To ensure the quality of higher education service, there are basic principles that must be based on them and must be taken into account in practical application, taking into account the most important requirements necessary in the components of the educational process.

1 Principles of Service Quality at the University:

The principles of service quality at the university were divided according to the elements of the educational process as follows¹⁷:

2 Principles Related to student:

Those are:

- Avoid feeling afraid so that everyone can do their job in a free educational environment that is able to face problems.
- Paying attention to the primary beneficiary (the student) and taking care of him and ensuring that he achieves high levels of satisfaction by achieving his needs and expectations.
- Independence to ensure respect for the educational institution, and its responsibility in managing its academic and administrative operations and activities.
- Attention to finding effective leadership in order to help workers make good use of technologies and capabilities to achieve better performance that helps students to be creative.

¹⁶Al-Hakim Laith Ali, Zuwain Ammar Abdul Amir et al., Improving the Quality of University Education Service Using the QFD Model, An Applied Study in the Faculty of Management and Economics, University of Kufa, Issue, 12, p. 191.

¹⁷In the senses of Rashidah, the work environment and its relationship to the quality of university education, a field study at the Faculty of Humanities and Social Affairs, University of Guelma, a memorandum submitted to obtain a master's degree in the sociology of organization and work, University of 8May, 1945 Guelma, 2019/2018 p. 79.

3 Principles of Management:

They can be summarized in the following points:

- The style of democratic leadership, which adopts the effective participation of all stakeholders, uses delegation and empowerment in decision-making powers and accepts criticism.
- Innovation and creativity, for the purpose of meaningful change, improvement and continuous development.
- Paying attention to the operational and technical processes in institutions that produce educational, visual and community services.
- Educational administration adopts a new philosophy that is challenging for students to learn to take responsibility.

4 Principles for Teaching Staff:

They are summarized as follows:

- The quality of the teacher through his scientific and behavioral qualification.
- The quality of teaching methods, which depends on the integration of academic theoretical concepts and practices with those of practical or applied ones.
- Breaking down barriers between scientific departments and forming teams from different departments and departments in a cooperative and constructive manner.
- Abandoning the provision of logos and direct advice and replacing them with urbanization and urging with its various methods.

5 Principles specific to the university:

These are summarized below:

- The quality of educational programs in terms of depth, inclusiveness and integration and the good way to address national challenges in the field of technology and economic and cultural challenges, as well as the flexibility of these programs by adapting them to suit the successive environmental changes.
- Paying attention to feedback, and ensuring that information is collected and documented, to understand reactions and benefit from them to improve and develop the outputs of the institutional system.
- Mutual benefits between all parties related to the educational institution, including students, faculty members, their assistants, workers and community parties.
- Quality of funding for equipment and research projects.

1-2-8 Quality of Service Requirements at the University:

In order to achieve the quality of this service, it is necessary to establish basic requirements, which are as follows¹⁸:

1. **Supporting senior management as the implementation of the university quality management system:** It needs a pause to support the senior university management until it achieves its desired goals.
2. **Employing quality:** by planting its concept and raising awareness of its importance and making it a solid base for all university employees, professors, administrators and workers, which facilitates its application and commitment to it by employees.

¹⁸Al-Zahi Halima, E-learning at the University of Algeria, The elements of embodiment and obstacles to application, a complementary thesis to obtain a master's degree in library science, specializing in virtual electronic information and information search strategy, University of Menturi, Constantine, 2012/2011, p. 103.

3. **Employee participation:** The participation of workers in all areas of work, transparency in decision-making, and benefiting from their ideas in most of the problems facing the work of the university.

4. **Measuring performance, productivity and quality:** This is through the establishment of a system of standards capable of accurate measurement related to productivity and quality in the field of higher education.

It can be said that e-management services are the process of achieving the set goals using the available means, according to a specific approach, and within a specific environment. It is a process of planning, organizing, coordinating, directing and controlling human and material resources.

Competitiveness

Competitive ability refers to the set of factors that help the organization to be competitive. These factors are the set of resources, assets and skills that can be controlled, mixed, coordinated and invested in a way that achieves better benefit and value for the customer or consumer, achieves excellence and superiority over the rest of the competitors, and allows success to continue to be achieved in light of local and global competition. Competitiveness means the ability to produce goods and services of good quality at the right price and at the right time more efficiently than competitors. The institution thus achieves a competitive advantage.

What is noticeable, then, is that competitive advantage is the goal to be reached by the state, sector or institution, and this goal is to achieve a distinction from competitors, and this goal is achieved through the optimal exploitation of a set of factors represented in human, financial, material, technological resources, administrative skills, and others, and these factors represent the competitiveness of the state or institution, and the process in which this readiness, exploitation and achievement of the goal is called competitiveness

❖ Forms of Inter-University Competitiveness

Competitiveness among universities takes the following forms:

1- Competition for resources, as there are no resources sufficient for all the needs of all sectors of the state, and then public universities, and the education sector in general, enter into competition with other sectors, bodies and government institutions, which requires universities to convince legislators, and those responsible for distributing resources, and convince donors of their feasibility and the extent to which they contribute to supporting societal development and improving the competitiveness of the state, and society as a whole, and this is more claimed at present, as the prevailing trend in countries and in political circles in general is to reduce spending, reduce subsidies and reduce financial allocations for services. Public universities also enter into direct competition with each other in order to obtain sufficient funds for their activities, and considerations arise for the so-called lost opportunity cost, where a trade-off is made between spending on universities and spending on other sectors such as agriculture, industry, tourism and others, so the comparison between spending and return in the field of university education is made, and what if these allocations are directed to sectors other than the university education sector, such as building a factory or developing the tourism sector, then which of these sectors generates a better return, and here universities must prove that they are no longer consumer institutions but investment institutions and that the return and benefit from them are higher than what is spent on them, so that the measurement of cost and benefit is a positive indicator in favor of universities, so that they enjoy the encouragement of society in general, and have more expenditures to help them improve processes and outputs to benefit

society, thus improving their status, and thus they remain in survival and continuous improvement.

2- Universities are looking for sponsors, in light of the trend towards searching for additional resources for funding, involving public and private universities. This escalating competition increases the difficulties faced by activities aimed at collecting enough grants and grants for universities, which increases tension in the competitive environment.

3- Competing for students, as each university wants to attract students who add more reputation and prestige to the university, superior students who have the ability to complete university study with excellence. Each university or college is eager to be chosen by such outstanding students. Some universities follow certain ways to attract these students, such as expanding scholarships, although such scholarships are an additional cost that has implications for the university's resources.

4- Competing to attract, as well as retain, distinguished teaching and administrative staff, as universities compete to include the best elements of faculty and administrators in a way that supports and improves their competitiveness.

5- Competing for excellence. There are certain universities and colleges around the world whose name refers to excellence and excellence. These names have become role models and distinctive signs of superior quality that guide many other higher education institutions. It remains to be said that each university can develop its programs and have the desire to match the institutions of distinguished names such as Harvard and Cambridge. There are some universities that have gained an excellent reputation for their university program in a specific field such as marine science. The university must excel in one or more of its programs, so that it is of a superior quality, and this excellence in turn attracts students and qualified teachers, and grants, gifts and gifts to educational institutions to help them maintain their competitive advantage and success in the long term.

Since 2003, international reports have emerged to classify universities worldwide, which gives each university an indication of its position among the rankings, prompting each university to strive to secure and provide the necessary requirements to comply with these classification standards for international universities, thus enhancing its position and ranking among international universities.⁽⁵⁴⁾ This prompted universities to stand on their status, ranking and competitive position among the universities of the world, and to compare themselves with other local, regional and global universities, and to review and improve their performance and improve their competitive position by developing policies, strategies and procedures that push them to an advanced competitive position. The results of the rankings push and motivate universities towards competition.

The university classification reports are useful in evaluating universities among each other, identifying the gap between each university and international universities, increasing competitiveness between universities, evaluating the excellence within each university, identifying best practices, developing and guiding scientific research and education policies in countries, and contributing to intensifying scientific relations and interaction in scientific research at the national and international levels.

The rankings of universities - according to their treatment of the institution as a whole or a specific program or activity - are divided into a comprehensive classification, which is the most common, as it depends on indicators to assess university performance at the university level as a whole, and a partial classification, and it is based on a specific program or field in one of the branches of knowledge through which universities are classified, such as focusing on the first

university degree or postgraduate studies, and a mixed classification based on a variety of criteria and indicators. The rankings are divided - according to the breadth of coverage - into local rankings that rank universities at the local level, where one of the institutions concerned develops a ranking of universities at the state level only, and international rankings that rank universities and research centers worldwide.

University rankings can be divided into:

A- Academic classifications such as :

- Classification of the Institute of Higher Education at Jiao Tong University in Shanghai, China Academic Ranking of World Universities.
- Classification of the British Times newspaper through its Higher Education Supplement: Classification of international universities in cooperation with a British institution specialized in education and study abroad, Quacquarelli Symonds, and then in cooperation with Thomson Reuters Foundation in the United States, which works in the field of media.
- Ranking of the American Newspaper U. S. News & World Report in cooperation with the Quacquarelli Foundation: ranking of the best universities in the world.
- Ranking of the Russian agency Reiter: Ranking of international universities.

B-Categories focused on research performance such as :

- Classification of the Dutch University of Leiden: Leiden classification.
- Classification of the Institute of Evaluation and Accreditation of Higher Education in Taiwan Performance Classification of Scientific Papers in International Universities.
- European Commission Classification: Evaluation of universities through research performance.
- OIC Classification: Academic Classifications of Universities in OIC Countries.

C- Mixed (multiple) classifications, which are classifications and divisions of universities using a number of various indicators without placing them under specific labels such as :

- Classification of the Center for the Development of Higher Education in Germany.
- Splitting the map of universities.
- Classification of the European Universities Financing Project: The European Multidimensional University Classification System.

D-Classification of universities according to their website, such as: Webometrics classification in Madrid for world universities.

E-Benchmarking through learning outcomes such as: Classification of the Organization for Economic Cooperation and Development: Evaluation of Higher Education Outcomes Project.

Part 2: Practical Section

2.1: Private Universities at a Glance

Modify articles No. 14, 41 in Legislative Decree No. 36 of 2001, regarding regulating private post-secondary educational institutions

Establishing private or joint institutions in the Syrian Arab Republic that contribute with government universities and institutes to providing quality and distinctive education, raising the level of higher education and scientific research, increasing opportunities for university education, and meeting current and future development needs. Arab or foreign programs shall be studied in continuous cooperation with government, Arab, or foreign institutions recognized by their countries. It is also permitted to establish branches of Arab or foreign governmental or private educational institutions subject to the provisions of this legislative decree and the provisions contained in their licensing decrees.

In Syria, there are 8 public universities and 15 private universities:

Private universities are distributed in different cities in Syria.

Qalamoun Private University is located in the countryside of Damascus-Deir Atiyah.

Al-Wadi International Private University, in Homs -Wadi Al-Nasari,

Al-Hawash Private University, in Homs - Al-Hawash Region,

Andalus University for Medical Sciences, in Tartous-AlQadmus,

and Sham Private University, in Damascus, and the Syrian Private University of Antioch, in the countryside of Damascus

As for the Daraa - Ghabagheb area, it includes the largest number of private universities in Syria, such as the Syrian International Private University, the Arab International Private University, Al-Rashid Private University, the International Private University for Science and Technology, Yarmouk Private University, and Al-Jazeera Private University.

With regard to the practical study, this section deals with a detailed description of the procedures followed as the objectives of the study, through a description of the research methodology used, the study population, its sample, a description of the measurement tool and the procedures used to verify its validity and stability and how to apply it to the study sample, as well as an indication of the statistical means used to process the data statistically.

2.2 Methodology of the Study:

This research relies on the descriptive analytical approach, as it is the most used approach in the study of social and humanitarian phenomena, and because it suits the case study in our hands, which is "the **role of electronic services in improving the competitiveness of universities**". "The concept of the analytical descriptive approach to research means" :A method that is concerned with and describes the phenomenon or phenomena in a realistic manner, without the researcher interfering with the jurisprudence of himselfThe descriptive ". analytical approach relies on describing the reality and basics of the subject as it is without expressing an opinion on the subject, whether neutral or not,as it details it in precise detail, so that the reader can know the subject or phenomenon in detail, and then analyzethe phenomenonor subject in a sample way , to draw the results he wants realistically through description and analysis, and then the reader can rely on it simply. This approach tries to compare, interpret and evaluate to reach meaningful results for the objective of the research.

The researcher used two main sources of information:

I. Secondary Sources:

The theoretical framework of the research was addressed through secondary data sources, which are the relevant Arab and foreign books and references, previous research and studies that dealt with the subject of the study, and research and reading in various Internet sites.

Second - Primary Sources:

To address the analytical aspects of the research topic, the researcher relied on the distribution of a questionnaire specifically for this purpose. This questionnaire was developed based on electronic services and their role in improving the competitiveness of private universities. The paragraphs of the questionnaire were drafted to suit the questions of the study. 52 forms of this questionnaire were distributed to a number of students and workers in a number of Syrian private universities located near the city of Damascus. References and previous study that are relevant to the **topic were used in the construction of the questionnaire.**

2.3 Population and Sample of the Study:

Students and employees of Syrian private universities near the city of Damascus (52) questionnaires that meet the requirements of the analysis.

Reliability of the questionnaire.

Relevant references and previous studies were used in the construction of the questionnaire on "the **role of e-services in improving the competitiveness of private universities**", and the main axes covered by the questionnaire and the paragraphs that fall within each axis were identified.

The questionnaire was also divided as follows:

Part I: It included the personal characteristics of the members of the study sample in terms of (status within the university).

Part II: It is about the areas of study. The questionnaire consists of several main axes:

Variable	The number of statements
Electronic Services	10
competitiveness	8

The five-point Likert scale (positive) was used to measure the evaluation of the respondents' responses to the questionnaire paragraphs.

2.4 consistency of study Tool:

1- Validity of the questionnaire:

The validity of the questionnaire means that the questionnaire questions measure what they were designed to measure, and the researcher verified the validity of the questionnaire in two ways:

1. Honesty of arbitrators:

The researcher presented the questionnaire to the supervisor and the researcher was provided with the changes to the questionnaire, and the researcher responded and made the necessary deletion and amendment in light of the proposals submitted, and thus the questionnaire came out in its final form.

2. Stability / Cronbach's Alpha Coefficient:

The researcher used the Cronbach Alpha method to measure the stability of the questionnaire, as it expresses the average internal correlation between the phrases it measures and its value ranges between 0-1. The acceptable value is 0.60 and more. The closer its value is to the correct one, the higher the degree of stability of the tool and its powers of use, and the results are as shown in Table (1).

Variable	The number of statements	Cronbach's Alpha Coefficient
Electronic Services	10	0.875
competitiveness	8	0.800

Table (1) The results of the Cronbach alpha test to measure the stability of the questionnaire

One of the results shown in Table (1) is that the value of the Cronbach's alpha coefficient was acceptable and ranged from 0.87 to 0.80. Thus, the researcher has ensured the validity and stability of the study's questionnaire, which makes him fully confident in the validity of the questionnaire and its validity to analyze the results, answer the study's questions and test its hypotheses.

2.5 consistency of study Tool:

Validity and reliability of the questionnaire:

The truthfulness of the questionnaire means that the questionnaire questions measure what they are designed to measure.

1. Honesty of arbitrators

The researcher presented the questionnaire to the supervisor, and the researcher was provided with the changes to the questionnaire, and the researcher responded and made the necessary deletion and amendment in light of the proposals submitted, and thus the questionnaire came out in its final form.

2. Internal Validity

Internal consistency honestly means the consistency of each paragraph of the scale with the axis to which this paragraph belongs. The researcher has calculated the internal consistency of the questionnaire by calculating the correlation coefficient between each paragraph of the questionnaire axes and the total degree of the same axis.

- **The first axis** :E-services

		Services
Make good use of the university's website	Pearson Correlation	.645**
	Sig. (2-tailed)	0.000
University Wi-Fi is efficient and stable	Pearson Correlation	.772**
	Sig. (2-tailed)	0.000
The university provides good technical support to solve infrastructure problems	Pearson Correlation	.802
	Sig. (2-tailed)	0.000
The electronic devices available at the university meet your academic and administrative needs	Pearson Correlation	.677**
	Sig. (2-tailed)	0.000
There is an e-learning platform for the university that allows students to register for useful scientific courses within their specialization	Pearson Correlation	.588**
	Sig. (2-tailed)	0.000
There is an electronic library that makes it easier for students to obtain references and scientific materials	Pearson Correlation	.643**
	Sig. (2-tailed)	0.000
There is an electronic catalog of books in the university library	Pearson Correlation	.696**
	Sig. (2-tailed)	0.000
Registration and accessing the Student Portal service takes a long time	Pearson Correlation	.638**
	Sig. (2-tailed)	0.000
There is a rapid response to electronic communication with student affairs through the university's social media page	Pearson Correlation	.752**
	Sig. (2-tailed)	0.000
There is an email for each university professor on the university website to communicate with him by the student	Pearson Correlation	.646**
	Sig. (2-tailed)	0.000

Table (2) Correlation coefficient between each paragraph of the questionnaire axes and the total score of the electronic services axis

Source: Prepared by the student based on the results of the SPSS program

Table (2) shows the correlation coefficient between each paragraph of the first axis of **electronic services** and the total degree of the axis, which shows that the correlation coefficients shown at a significant level (0.05) and a degree of confidence of 95% ranged between 0.58 & 0.80

Thus, the axis is considered sincere when it is set to measure the correlation coefficient between each of the axis phrases

- **The second axis: competitiveness**

		Performance
The electronic payment service at the university is easy to use	Pearson Correlation	0.451
	Sig. (2-tailed)	0.001
Electronic payment service provides you with less time and effort to pay tuition and university fees	Pearson Correlation	.682**
	Sig. (2-tailed)	0.000
The electronic payment service shows you your balance information in the university account	Pearson Correlation	.606**
	Sig. (2-tailed)	0.000
There are difficulties in the process of paying amounts through the electronic payment service in the bank for the university account	Pearson Correlation	.587**
	Sig. (2-tailed)	0.000
Tuition fees can be transferred through the student's bank accounts belonging to any of the Syrian private and public banks	Pearson Correlation	.724**
	Sig. (2-tailed)	0.000
Upon electronic payment, the payment is transferred directly to the student's balance in the university account without delay	Pearson Correlation	.692**
	Sig. (2-tailed)	0.000
The student shall bear the commission deducted from the bank when transferring his tuition fees to the university account	Pearson Correlation	0.795
	Sig. (2-tailed)	0.000
The university allows students who do not have enough balance in their bank account to register at the university on the account for a temporary period	Pearson Correlation	.677**
	Sig. (2-tailed)	0.000

Table (3) Correlation coefficient between each paragraph of the questionnaire axes and the total degree of competitiveness axis

Source: Prepared by the student based on the results of the SPSS program

Table (3) shows the correlation coefficient between each of the paragraphs of the competitiveness axis and the total degree of the axis, which shows that the correlation coefficients shown at a significant level (0.05) and a degree of confidence of 95% ranged between 0.45 & 0.79. Thus, the axis is considered honest when it is set to measure the correlation coefficient between each of the axis phrases.

Relative Distribution by Metadata:

	Number	%
Professor	8	15.4
Administrative Officer	8	15.4
a university student	36	69.2
Total	52	100.0

Table (4) continued the relative distribution of data on the mathematical situation

Source: Prepared by the student based on the results of the SPSS program

Table(4) shows the relative distribution of the sample according to the mathematical situation, where we find 15.4% university professors, 15.4% administrators and 69.3% university students.

- What is the level of evaluation of the application of e-services in Syrian private universities according to the study sample?

To know the level of evaluation of (the **application of electronic services**), this axis has been measured through phrases that highlight the evaluation and accreditation by extracting the arithmetic averages, standard deviation, relative importance and level of accreditation, as follows:

	Arithmetic Mean	Standard Deviation	T	Weight Proportional %	Sig Sig
Make good use of the university's website	3.69	0.73	6.85	74	0.000
University Wi-Fi efficient and stable	3.69	0.90	5.56	74	0.000
The university provides good technical support to solve infrastructure problems	3.69	1.00	4.99	74	0.000
The electronic devices available at the university meet your academic and administrative needs	3.71	0.78	6.62	74	0.000
There is an e-learning platform for the university that allows students to register for useful scientific courses within their specialization	3.73	0.77	6.84	75	0.000
There is an electronic library that makes it easier for students to obtain references and scientific materials	3.71	0.75	6.84	74	0.000
There is an electronic catalog of books in the university library	3.69	0.85	5.86	74	0.000
Registration and accessing the Student Portal service takes a long time	3.62	0.72	6.18	72	0.000
There is a rapid response to electronic communication with student affairs through the	3.56	0.92	4.39	71	0.000

university's social media page					
There is an email for each university professor on the university website to communicate with him by the student	4.33	0.58	16.36	87	0.000
Electronic Services	3.74	0.55	9.66	75	0.000

Table (5) Statistical functions to assess the level of application of electronic services in private universities

The table shows that the value of the arithmetic mean of the axis of the **application of electronic services in private universities** according to the evaluation of the sample members is 3.68 with a standard deviation of 0.51 and that the value of the relative weight of the evaluation of the study sample members about this axis is 74%, which is a high value, reflecting the high evaluation of the adoption of the application of electronic services in private universities.

It ranked first in the evaluation of the phrases of the **application of electronic services** (there is an e-mail for each university professor on the university website to communicate with him by the student) with an average calculation of 4.33 and a relative weight of 87% high, that is, the individuals of the study sample agree that there is communication between university professors and their students, and ranked second (there is an electronic educational platform for the university that allows students to register for useful scientific courses within their specialization) with an average calculation of 3.73 and a relative weight of 75% (evaluation and accreditation at a high level) and ranked third (electronic devices available at the university meet your academic and administrative needs) with a relative weight of 74% also high evaluation, and the phrase (Wi-Fi at the university works efficiently and stability) with high evaluation and accreditation. The last ranks are (registration and entry to the student portal service takes a long time) with a high level of accreditation and finally (there is a rapid response with regard to electronic communication with students' affairs through the university page on social media) with an average calculation of 3.56 and a relative weight of 71% high accreditation.

– What is the level of evaluation of the competitiveness of private universities according to the study sample?

To know the level of evaluation of (**competitiveness**), this axis has been measured through phrases that highlight this evaluation and accreditation by extracting the arithmetic averages, standard deviation, relative importance and level of accreditation, as follows:

	Arithmetic Mean	Standard Deviation	T	Weight Proportional %	Sig Sig
The electronic payment service at the university is easy to use	4.12	0.65	12.44	82	0.000
Electronic payment service provides you with less time and effort to pay tuition and university fees	4.27	0.66	13.86	85	0.000
The electronic payment service shows you your balance information in the	4.00	0.79	9.10	80	0.000

university account					
There are difficulties in the process of paying amounts through the electronic payment service in the bank for the university account	3.60	0.72	5.96	72	0.000
Tuition fees can be transferred through the student's bank accounts belonging to any of the Syrian private and public banks	3.79	1.00	5.70	76	0.000
The student shall bear the commission deducted from the bank when transferring his tuition fees to the university account	3.75	0.76	7.08	75	0.000
Upon electronic payment, the payment is transferred directly to the student's balance in the university account without delay	3.73	0.89	5.93	75	0.000
The university allows students who do not have enough balance in their bank account to register at the university on the account for a temporary period	3.62	0.72	6.18	72	0.000
competitiveness	3.86	0.51	12.11	77	0.000

Table (6) Statistical functions to assess the level of competitiveness

The table shows that the value of the arithmetic mean of the **competitiveness evaluation** axis according to the evaluation of the sample members is 3.68 with a standard deviation of 0.51, and that the value of the relative weight of the evaluation of the study sample members about this axis is 74%, which is a high value, reflecting the high evaluation of the adoption of competitiveness in Syrian universities.

The first place in the evaluation of **competitive** phrases was the phrase (electronic payment service provides you with less time and effort to pay tuition fees and university expenses) with an average calculation of 4.27 and a relative weight of 85% high, that is, the study sample agreed on the importance of electronic payment in saving students' time and effort. The second place was the phrase (electronic payment service at the university is easy to use) with an average calculation of 4.12 and a relative weight of 82% (evaluation and accreditation at a high level). The third place was the phrase (electronic payment service shows you the information of your balance in the university account) with a relative weight of 80% and also a high evaluation, and the phrase (tuition fees can be transferred through the student's bank accounts of any of private and public Syrian banks) with a high evaluation and accreditation. The last ranks are (the university allows students who do not have enough balance in their bank account to register at the university on the account for a temporary period) with a high level of accreditation and finally the phrase (there are difficulties in the process of paying amounts through the electronic payment service at the bank to the university account) with an average of 3.60 and a relative weight of 72% high accreditation.

2.6 Hypotheses Testing

The first hypothesis:

– **There is a statistically significant effect at the level of significance (0.05) between the application of the electronic infrastructure used in private universities and improving the competitiveness of these universities.**

Simple linear regression has been applied to study the effect of the independent variable (electronic infrastructure) and the dependent (competitiveness).

Model	r	R Square	Adjusted R Square	F	Sig.
1	.71 ^a	0.517	(.508)	57.5	.000 ^b

a. Predictors: (Constant), Electronic Infrastructure

Table (7) Correlation coefficient, determination and statistical significance of the explanatory power of the proposed independent variable model (electronic infrastructure) and dependent (competitiveness)

The above table shows that the value of the correlation coefficient R is equal to 0.71, and that the interpretation coefficient is 0.51, meaning that the electronic infrastructure explains 51.7% of the changes in performance. The previous table also shows the statistical significance of the explanatory power of the model through the F statistic, which is F=53.5 and the significance of the arithmetic significance (sig= 0.000), which is smaller than the significance of the standard significance sig=0.05, which confirms the statistical significance of the linear regression model in statistical terms, i.e. the whole model is of significant significance.

Coefficients a

Model	Unstandardized Coefficients		standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.377	0.343		0.019 ***	0.000
1 Infrastructure	.663	.091	0.719	7.320	0.000

a. Dependent Variable , Competitiveness

Table (8) Statistical functions of the independent role (electronic infrastructure) and the dependent (competitiveness)

The table indicates that the value of the impact of the independent variable (electronic infrastructure) is statistically significant and positively affects competitiveness. Therefore, **there is a statistically significant impact at the level of significance (0.05) between the application of electronic infrastructure used in private universities and improving the competitiveness of these universities.**

– Second-hypothesis:

– There is a statistically significant effect at the level of significance (0.05) between electronic financial payment services and improving the competitiveness of universities.

Simple linear regression has been applied to study the impact of the independent variable (electronic financial payment services) and the dependent (improving the competitiveness of universities).

Model	r	R Square	Adjusted R Square	F	Sig.
1	.63 ^A	0.407	0.395	333	.000 ^b

a. Predictors: (Constant), Electronic Financial Payment Services

Table (9) Correlation coefficient, determination and statistical significance of the explanatory power of the proposed independent variable model (electronic financial payment services) and the dependent (improving the competitiveness of universities)

The above table shows that the value of the correlation coefficient R is equal to 0.63, and that the interpretation coefficient is 0.40, that is, the electronic financial payment services interpret 40.0% of the changes in improving the competitiveness of universities. The previous table also shows the statistical significance of the explanatory power of the model through the F statistic, which is $F=34.3$ and the significance of the arithmetic significance ($\text{sig}=0.000$), which is smaller than the significance of the standard significance $\text{sig}=0.05$, which confirms the statistical significance of the linear regression model in statistical terms, that is, the whole model is of significant significance.

Coefficients a

Model	Unstandardized Coefficients		standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.425	.491		2.904	0.005
Electronic Financial Payment Services	.760	0.130	.638	859	0.000

a. Dependent Variable: Improving Universities' Competitiveness

Table (10) Statistical functions of the independent role (electronic financial payment services) and the dependent (improving the competitiveness of universities)

The table indicates that the value of the effect of the independent variable (electronic financial payment services) is statistically significant and positively affects competitiveness, and therefore (there is a statistically significant effect at the level of significance (0.05) between electronic financial payment services used in universities and improving the competitiveness of these universities).

3. Findings

- The infrastructure used meets the needs of students well and thus helps improve the competitiveness of Syrian private universities.
- Syrian private universities are working to provide Internet service through the Wi-Fi network, where they generally operate efficiently and stability.
- Technical support is provided to solve infrastructure problems well.
- The electronic devices used at the university adequately meet the academic and administrative needs that improves the quality of the university's performance.
- There is some response in terms of electronic communication with students' affairs through social media.
- The university's website is used in an acceptable way, but it is not to the required degree.
- The electronic payment service in universities is easy to use.
- The electronic payment service is a convenient way to save the student time and effort to pay tuition and university fees.
- The electronic payment service shows students the information of their balances in the university account.
- There are no difficulties in the process of paying amounts through the electronic payment service in the bank for the university account.

4. Recommendations

- Emphasizing on all Syrian private universities the need to find an e-mail for each university professor in order to facilitate students' communication with him.
- The electronic educational platforms provided by universities must be developed to attract greater numbers of their interactors, especially international students.
- The need to expand the electronic offices provided by Syrian private universities to enable students to obtain references and modern scientific materials with ease.
- With the expansion of the contents of the electronic libraries of universities, the organization of the electronic indexing of books in the library must be improved so that students can identify the books in the library periodically, with the need to focus on recent books that have been added to the library recently.

References

- Abu Qara Yousef et al., Quality and Excellence in Business Organizations, First Arabic Edition, Arab Society Library for Publishing and Distribution, Amman, 2011
- Abdul Wahab Sakhri, Safa Mubarak, The Role of **E-governance Requirements in Enhancing the Quality of Performance**, Al-Muhtaref Journal of Sports, Humanities and Social Sciences, Issue 01, 2022
- Amer Tarek, (2017), Electronic Management Book, Taiba Foundation for Publishing and Distribution, Cairo, Edition 1
- Al-Dalahma Suleiman Mustafa, **2002, Fundamentals of Accounting Information Systems and Information Technology**, Dar Al-Warraq for Publishing and Distribution, Amman, Jordan
- Al-Dulaimi, Janan Abdul Abbas, Al-Asadi Uday Ani, The Effectiveness of Information Technology Application for the Quality of University Performance, Study of the Iraqi University of Babylon, Arab Journal for Quality Assurance of University Education, No. 12, University of Babylon, Iraq ,2014
- Abdul Karim Saeed Abdo, Qasim Al-Duais et al.,2012, **Requirements of Electronic Governance**, Al-Jamea Journal in Psychological Studies and Educational Sciences, Sana 'a University Yemen, No. 2
- Ali Abdul Rahim Mohammed Omar, Knowledge Management and its Role in Institutional Performance, Sur International Company Case Study, Master's Degree Thesis, Specialization in Business Administration, Faculty of Graduate Studies and Scientific Research, Shendi University, 2014/2014
- Al-Amri Firas Mohammed, Al-Khudair Laila Abdullah, The Impact of Organizational Spirituality on Enhancing University Performance, Journal of the Baghdad College of Economic Sciences, University, No. 06, 2021

- Al-Hajjar Raed Hussein, Evaluating University Performance from the Point of View of Al-Aqsa University Faculty Members in Light of the Concept of Total Quality Management, Al-Aqsa University Journal, Issue 2, 2002
- Abdel Nasser Moussa, Mohamed Qureshi, The Contribution of E-governance to the Development of Administrative Work in Higher Education Institutions, Journal of the Researcher, Issue 05, 2011
- Alaa Abdul Razzaq Al-Salmi, **Electronic Administration**, Wael Publishing House, Amman, Jordan ,2002
- Amari Samir,2012, The Role of **Electronic Governance in the Development of the Performance of Higher Education Institutions**, PhD Thesis, Faculty of Economic, Commercial and Management Sciences, Specialization of Management Sciences, Mohamed Boudiaf University of Messila
- Belhaj Ibrahim Belkacem, Knowledge Management Operations and Its Relation to Institutional Performance, Field Study at Al-Zawia Teaching Hospital, Sabratha Scientific Journal, Issue 02, 2020
- Ben Belkacem Iman, The Training Performance of the University Professor in the Light of Total Quality Levels, Al-Muharrar Journal of Sports Sciences, Humanities and Social Sciences, Volume 05, Issue 02, 2022
- Bahloul Khair, The extent **to which e-management contributes to improving the quality of banking services**, PhD thesis, specializing in the management and administration of the institution, Faculty of Economic, Commercial and Management Sciences, University of Tissemsilt, 2022
- Fathi Darwish Ashiba, Studies **in the Development of University Education in the Light of Contemporary Challenges**, 1st Edition, Modern Academic University Book, Cairo, Egypt ,2005
- Farkha Linda, 2012, The Role of the **Application of Electronic Human Resources Management in the Competitiveness of Institutions**, PhD Thesis, Human Resources Management Specialization, Faculty of Economic, Commercial and Management Sciences, Biskra University
- Mettler T, Rohner P (2009). Performance management in health care: The past, the present, and the future (PDF). International Conference Business Informatics. Vienna. P. 699–708. Archived from the original (PDF) on 2017-01-27.
- Khathir Mohammed and Maraibi Asmaa, The Interactive Link between the Dimensions of Service Quality and Customer Satisfaction in the Organization, Journal of Business Economics, Al-Majid,03 Issue,01, 2017
- Saad Ghaleb Yassin, **Electronic Administration**, Al-Yazouri Scientific House, Jordan ,2012
- Mahmoud Abdel Fattah Radwan, **Electronic Management and its Functional Applications**, Egyptian Book House, Cairo, Egypt, Edition 1, 2012
- Khanafif Mohammed, E-administration is a **mechanism to improve the performance of public administrations**, thesis for a doctorate, specialization in public business administration, Faculty of Economic, Commercial and Management Sciences, University of Blida 02, 2020
- Qaid Ibrahim ,2012, **E-governance: Basic Concepts and Application Requirements**, Journal of alriyada for business economics Baghdad Benin, 4th Edition, Issue 2
- Rahawi Abdul Rahim, Qasimi Khadija,2012, The Role of **Electronic Governance in Improving the Quality of Public Service**, Index Journal of Economic Studies, Issue 3
- Kalakhi Latifa, Radeef Mustafa, 2021, Requirements for **Implementing E-Governance at the Level of Local Communities**, Journal of Economic Studies, Issue 02
- Salam Abdullah Hassan ,2014, **Knowledge Management and Information Technology**, Al-Mu 'taz Publishing and Distribution House, 1st Edition, Amman, Jordan
- Hussein Zawia Mohamed, **Human Resources** Department, Egypt, Dar Al Jamia,2011
- Ishaiba Fathi Darwish, Studies in the Development of University Education in the Light of Contemporary Challenges, 1st Edition, Modern Academic University Book, Cairo, Egypt ,2005
- Khaled Asmaa and Shabounia Zahia, Algerian University Towards the Exercise of the Third Function, Algerian Journal of Research and Studies, Siddiq Bin Yahya Jijel University, Algeria, Volume 02, Issue 06, 2015
- Nabila Khadija, Falak Mohammed, Evaluating University Performance by Studying the National Reference for Quality Assurance in the Light of the Concept of Quality Assurance in Higher Education, Shuaa Journal of Economic Studies, Issue 02, 2022
- Zarzar Ayachi and Ayad Karima, From the Traditional University to the University of Quality, Journal of Social and Human Sciences, Algeria, Issue ,04, 2013

Annexes

Appendices:**Infrastructure used at the university**

Strongly disagree	Disagree	neutral	Agree	Strongly agree	Paragraphs	
					The infrastructure at the university meets the needs of students well.	
					University Wi-Fi efficient and stable	
					The university provides good technical support to solve infrastructure problems	
					The electronic devices available at the university meet your academic and administrative needs.	

E-learning

Strongly disagree	Disagree	neutral	Agree	Strongly agree	Paragraphs	
					There is an e-learning platform for the university that allows students to register for useful scientific courses within their specialization.	
					There is an electronic library that makes it easier for students to obtain references and scientific materials.	
					There is an electronic index of the books in the university library	

Electronic communication

Strongly disagree	Disagree	neutral	Agree	Strongly agree	Paragraphs	
					Registering and accessing the Learnata student portal service takes a long time.	
					There is a rapid response to electronic communication with student affairs through the university's Facebook page.	
					You make good use of the university's website.	
					There is an email for each university professor on the university website to be contacted by the student.	

Electronic payment service

Strongly disagree	Disagree	neutral	Agree	Strongly agree	Paragraphs	#
					The electronic payment service at the university through Learnata is easy to use.	1
					The electronic payment service provides you with less time and effort to pay tuition and university fees.	2
					The electronic payment service shows you your balance information in the university account.	3
					There are difficulties in the process of paying amounts through the electronic payment service in the bank for the university account.	4