



The Role of Digital Management in Achieving the Quality of Education at Alayen University - Iraq

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Summary:

Our study aimed to understand the concept of digital management, its importance, and its elements, in addition to understanding the concept of education quality, and investigating the impact of implementing digital management in achieving the required quality of education. We used a suitable and consistent approach with the nature of this research, which is the descriptive-analytical approach, by conducting a theoretical study to form the cognitive research framework through the use of diverse references, scholarly research, journals, and articles related to the research concepts within electronic databases. We reached several important results, including that the digital management environment is a changing environment, and that digital management plays an important role in achieving education quality and improving the performance of institutions operating in the field of education, as well as preserving the environment by minimizing the use of paper transactions to a minimum using (Kai square). It was found in the table that the highest value was (35.74) and the lowest value was (30.14), and we note from the table that the probability value (sig) for all items reached 000, which is less than the probability value of 0.05, and therefore the null hypothesis was accepted, which states: "There is a statistically significant impact of digital management in achieving education quality."

Keywords: Management, Digital Management, Education Quality.

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Introduction:

Educational institutions are considered fundamental and influential pillars within society, due to their direct connection to a wide and important segment of the community, namely students at various stages of their age, from entering primary school to their maturity and graduation from universities in various fields. Consequently, educational organizations possess strong influential capabilities on students, their intellectual orientations, and their behavior within society. Due to the advancements in technology and modern techniques witnessed in today's world, and the abundance and rapid spread of information worldwide, most organizations have replaced their traditional administrations with modern digital electronic administrations that can keep up with the rapid developments and innovations worldwide. This is in addition to addressing the shortcomings that existed within traditional management systems, such as bureaucracy, waste, corruption, and ultimately, low productivity.

Since educational organizations are the source of knowledge, science, and innovations, it was essential for them to transition to digital management in the educational field in order to benefit from important advantages and to overcome the weaknesses that prevailed in traditional educational systems, ultimately achieving the required quality in education, both quantitatively and qualitatively. This has driven us to study the role of digital management in achieving the quality of education within educational organizations, and to demonstrate the advantages of this approach and the essential requirements needed to achieve the desired and expected optimal quality.

Research Methodology

Research Problem:

Due to the significant and rapid changing circumstances faced by organizations today, and the intensifying competition among them, there is a growing need to replace the traditional management systems they use with modern digital management systems that align with the latest technological developments worldwide. Furthermore, due to the great importance of educational institutions in nurturing students at different age levels and equipping them with the fundamental knowledge and sciences for societal development and national advancement, there is an increased importance in demanding the improvement of educational quality, leading to an educational product capable of competing in the job markets and elevating society in various aspects of life. Hence, we can present the research problem, which revolves around the following main question:

What is the role of digital management in achieving educational quality?

The Importance of Research:

The importance of research is linked to the significant importance of the concept of digital management, as it is one of the modern administrative concepts applied within Arab countries. It has become an urgent necessity due to the rapid developments in various technological fields and the clear impact of educational organizations on a wide spectrum of society, including school and university students who determine the country's future. Therefore, there has been a great focus on the quality of education and educational outcomes, seeking to elevate the educational level of students and enrich them with modern, diverse, and necessary knowledge for the country's development. Hence, it was necessary to research the impact of digital management implementation on the quality of education, in addition to enriching the Arabic library with modern research that reflects positively on researchers.

Study Objectives:

The research aims to clarify the following key points as follows:

- 1- Clarifying the concept of digital management and its importance.
- 2- Identifying the elements of digital management.
- 3- Explaining the concept of education quality.
- 4- The impact of implementing digital management on achieving education quality.

Research Methodology:

A suitable and coherent analytical-descriptive approach was used in line with the nature of this research. This involved conducting a theoretical study to form the cognitive research framework by utilizing diverse references, scholarly research, journals, and articles related to the concepts within our research scope, from electronic databases.

Research Hypothesis:

- Is there a statistically significant impact of digital management on achieving educational quality?

Research Community and Sample:

Alayen University was selected for the study, focusing on the staff and administrators. The study sample included approximately 30 male and female workers.

Statistical methods and computer programs used in the study:

The statistical software SPSS was used for the analysis of the responses obtained from the ready-made questionnaires. This involved calculating the mean, variance, range, standard deviation, as well as creating graphical representations and figures to illustrate the study.

Theoretical framework

First: digital management

The concept of digital management:

Digital management, or electronic management as it is also known, is an innovative concept shaped by the advanced stages of the information technology revolution. The concept of digital management refers to a new approach based on comprehensive assimilation to achieve the primary goal of organizations seeking excellence, enabling them to build high and effective competitive capabilities, allowing them to quickly access markets and attract targeted customers (Dawood, 2020, p. 103). The term "digital (electronic) management" has been defined as a process of reengineering business and government relationships by activating information and communication purification to transform them into electronic format, in order to efficiently provide government services to individuals and the business sector. It also aims to make service delivery more transparent, speedy, and responsible in order to fulfill societal needs and aspirations by offering effective and proficient services, and creating digital interaction between individuals, the business sector, and government entities (Kafi, 2011, p. 55). Therefore, digital management has garnered significant attention due to the fundamental role it plays in improving the performance of institutions, assisting them in accomplishing their tasks quickly, and enhancing the quality and standard of education.

The Importance of Digital Management:

The importance of digital or electronic management is manifested in its ability to keep pace with the enormous qualitative and quantitative development in the field of applying information technologies and systems, accompanied by the emergence of what can be called the continuous information revolution, or the revolution of information technology and constant communication. In addition, electronic management represents a strong response to the challenges of the 21st century world, which encapsulates globalization, the digital space, the economics of information and knowledge, the internet revolution, and the global information network with all its variables and trends. (Yassin, 2016:16)

Requirements for Implementing Digital Management:

Any institution seeking to implement a digital management system needs to work on providing the essential elements of this system, as follows: (Al-Sharari and Al-Saleh, 2022, 497-498)

- 1- Administrative Requirements: There is a need for digital administrative leadership that efficiently and effectively handles information technology and communication, with the ability to innovate.
- 2- Technical Requirements: The cornerstone of implementing digital management lies in the devices and technologies necessary for the operation of management.
- 3- Human Requirements: The human element is the most important resource that can be invested in to achieve success in any organization. It is of great importance in implementing digital management through continuous training and development.
- 4- Legal and Security Requirements: Despite the privileges and services offered by the information age, there are challenges facing information confidentiality, including integration and information provision.

5- Material Requirements: It is essential to have material requirements that differ in type and size from those needed for traditional management systems, with financial planning and adequate allocation monitoring being among the most important requirements.

Dimensions of Digital Management (E-management):

The dimensions of digital management can be explained as follows based on a study (Abeid, 2021: 26).

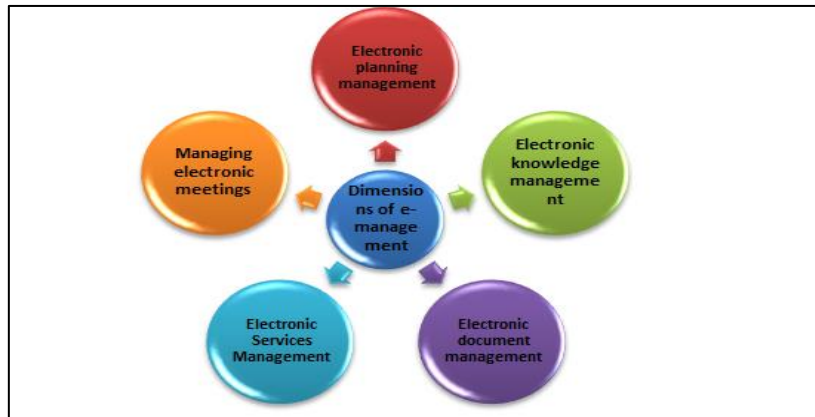


Figure No. (1)

Obaid, Mustafa Mufid Mustafa, (2021), "The Role of Electronic Management in Improving the Services Provided at the Palestinian Retirement Authority," Master's Thesis, Faculty of Economics and Administrative Sciences, Al-Azhar University - Gaza.

Secondly: Quality of Education.

The concept of quality in education:

There is an increasing focus on the concept of quality in various fields, particularly in the global and local educational sectors, due to the significance of this vital sector and its impact on various aspects of society. This has led to an emphasis on the quality and standards of its academic outputs and their reflection on the overall development of society.

Several definitions of the concept of quality in education have been provided, such as:

"This concept expresses the procedures, documentary processes of programs, and the application of a set of systems, regulations, and guidelines aimed at enhancing education and its quality, as well as the level of education and knowledge for students from various perspectives through effective management within the educational institution" (Quality, 2008).

It can also be defined as "the characteristics and features that accurately and comprehensively express the essence of education and its dimensions, from its inputs, processes, and outputs, in addition to the existence of feedback processes aimed at improving the performance of organizations operating in the field of education across its various elements, to achieve the pre-planned goals and objectives that ensure the development and progress of society" (Qazadri, 2019).

The Importance of Education Quality:

Quality refers to a new culture of dealing with globally agreed-upon standards and seeks to actively use humanity to satisfy the needs of comprehensive development and achieve the goals of society. This requires achieving excellence in skills, updating curricula, continuous improvement and development, and creating awareness of the importance of quality, teamwork, to demonstrate capabilities and talents (Yakhlef, 2019, p. 172). The importance of education quality has increased recently due to the following reasons (Attih, 2011):

1. Increased demand for education in various forms by the community.

2. Expansion in the job markets has led to a demand for new specializations that were not previously sought, increasing the need for flexible and modern educational systems that align with market requirements.

3. Rapid scientific developments in recent times have led to the emergence of new scientific specializations, necessitating continuous training to keep up with scientific developments and acquire new skills.

4. Increased competition among educational institutions, especially given technological advancements and the conditions of globalization.

5. The need to update educational curricula to effectively assist students in their future practical lives and provide them with the keys to knowledge and proper scientific research methods.

Principles of Quality in Education:

There are a number of principles related to the quality of education, which we will mention below: (Nasima, 2017)

1- Educational institutions' management should commit to continuous improvements by replacing traditional goals with new ones that align with global developments and changes. Additionally, they should define administrative responsibilities and provide continuous training for staff and teachers within educational organizations.

2- Emphasize the credibility of the information provided within the educational systems.

3- Focus on both external and internal stakeholders, such as the environment surrounding the educational organization, the job markets, as well as the students and employees within those institutions.

4- Engage all individuals and collaborate to achieve the desired educational quality through feedback processes to identify weaknesses, correct them, and enhance strengths.

The practical framework

Practical study:

Description of demographic variables:

جدول رقم (1) Descriptive Statistics (1)

	N	Minimum	Maximum	Mean	Std. Deviation
الجنس	30	1	2	1.63	.504
العمر	30	1	4	2.81	1.041
العلمي التحصيل	30	1	5	3.17	1.421
الخبرة سنوات	30	1	4	2.17	1.058
Valid N (listwise)	30				

We note from Table No. (1) that the standard deviation values for the demographic variables range between (.504 and 1.421) and that the sample size chosen for the study is 30 male and female workers.

جدول رقم (2) Statistics (2)

	الجنس	العمر	العلمي التحصيل	الخبرة سنوات
N Valid	30	30	30	30

Missing	3	3	3	3
Mean	1.63	2.81	3.17	2.17
Median	1.20	3.10	3.00	2.02
Std. Deviation	.504	1.031	1.311	1.048

Table No. (2) shows that there were 33 questionnaires distributed to employees, 30 of which were returned, and there were three damaged forms that were not included in the analysis.

The variance values ranged between (3.17 and 1.63), and the arithmetic mean took values between (3, 1.20).

Study variables:

Gender variable:

جدول رقم (3) الجنس

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid ذكر	19	53.5	57.7	56.7
Valid انثى	11	36.4	42.3	100.0
Total	30	90.9	100.0	
Missing System	3	9.1		
Total	33	100.0		

We note from Table No. (3) that the number of participating males was greater than the number of females participating in answering the questionnaire, as the percentage of participating males was about 53.5%, while the percentage of females was about 36.4%. As the graph shows:

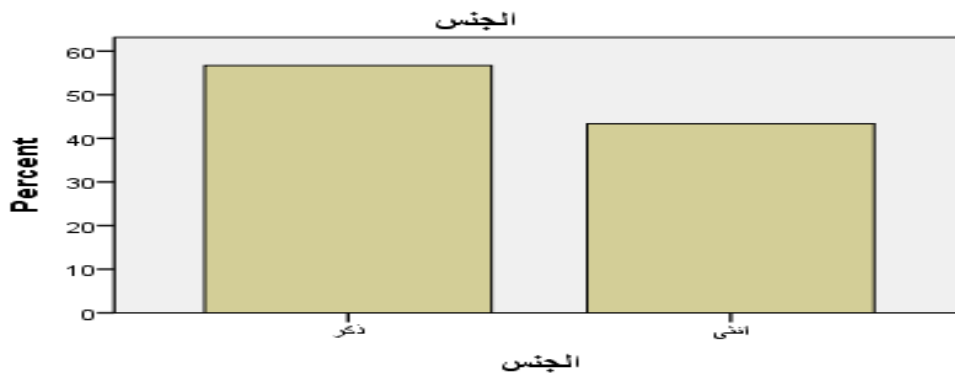


Figure No. (2)

Age variable:

We note from Table No. (4) that the most participating age group was those between the ages of 31 and 40, with a percentage of about 30.3%, followed by the age group of 41 and over with a percentage of 27.3%, and the least participation category was for those under 25 years of age, with a percentage of 12.1%.

جدول رقم (4) العمر

	Frequency	Percent	Valid Percent	Cumulative Percent
أقل 25	4	12.1	13.3	13.3
30 - 26	7	21.2	23.3	36.7
Valid 40 - 31	10	30.3	33.3	70.0
أكثر من 41	9	27.3	30.0	100.0
Total	30	90.9	100.0	
Missing System	3	9.1		
Total	33	100.0		

The graph in Figure No. (3) shows the age groups participating from most to least:

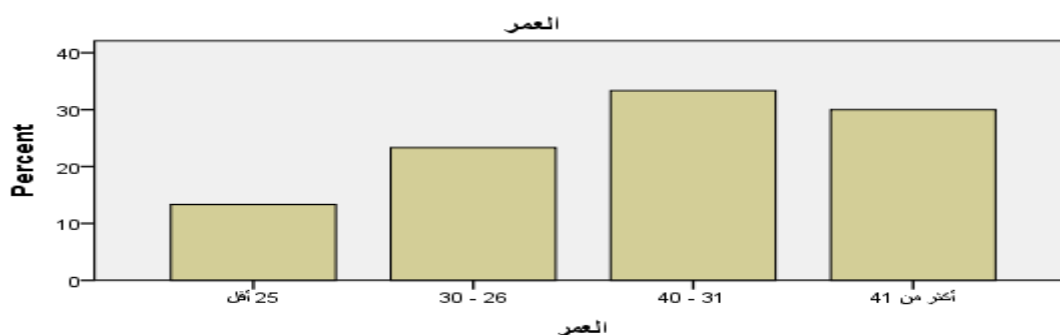


Figure No. (3)

Academic achievement variable:

We note from Table No. (5) that the most participating group in the answers are those holding a higher diploma, with a percentage of about 30.3%, followed by holders of a doctorate and a bachelor's degree with the same percentage, reaching about 17.2%, and finally those with a preparatory certificate, with a percentage of about 12.1%.

جدول رقم (5) العلمي التحصيل

	Frequency	Percent	Valid Percent	Cumulative Percent
اعدادية	3	12.1	13.3	13.3
بكالوريوس	7	17.2	20.0	33.3
Valid عالي دبلوم	11	30.3	33.3	66.7
ماجستير	4	14.1	13.3	80.0
دكتوراه	5	17.2	20.0	100.0
Total	30	90.9	100.0	
Missing System	3	9.1		
Total	33	100.0		

As shown in the chart in Figure (4):

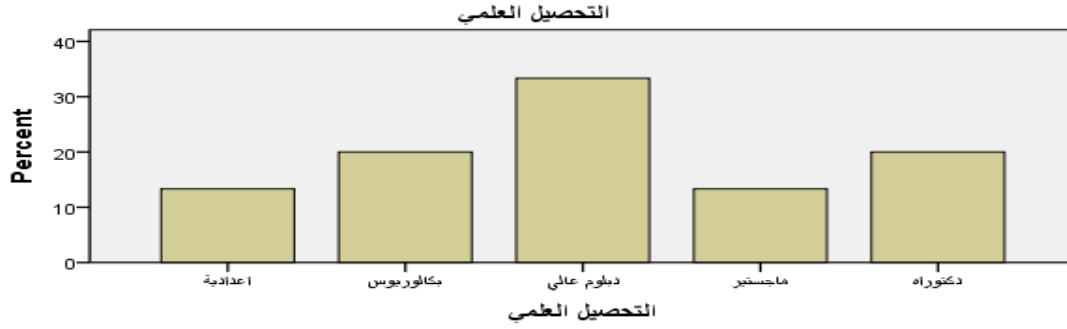


Figure No. (4)

Variable years of experience:

We note that the most participating group are those whose experience ranges between 6-10 years, amounting to about 34.3%, while the least participating group are those with more than 15 years of experience, amounting to about 14.2%, as shown in Table No. (6).

جدول رقم (6) الخبرة سنوات

	Frequency	Percent	Valid Percent	Cumulative Percent
أقل 6	8	25.2	26.7	26.7
10 - 6	11	34.3	36.7	63.3
Valid 15 - 10	6	17.2	20.0	83.3
أكثر و 15	5	14.2	16.7	100.0
Total	30	90.9	100.0	
Missing System	3	9.1		
Total	33	100.0		

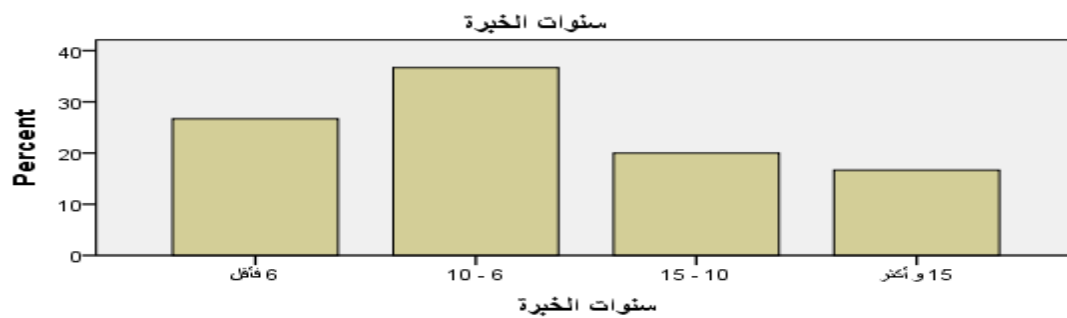


Figure No. (5)

Hypothesis testing:

There is a statistically significant effect of the role of digital management in achieving quality education. The chi-square test was used as follows:

The questionnaire questions were coded from M1 to M10, as shown in Table No. (7).

Table No. (7)

القيمة الاحتمالية	قيمة كاي مربع	رمز العبارة
000	35.74	1م
000	34.18	2م
000	34.85	3م
000	34.31	4م
000	35.47	5م
000	34.75	6م
000	34.70	7م
000	30.14	8م
000	31.22	9م
000	33.87	10م

We note from the table that the highest value of the chi-square was for paragraph M1, where it reached 35.74, and the lowest value was for paragraph M8, where it reached 30.14. We note from the table that the probability value (sig) for all paragraphs reached 000, which is smaller than the probability value of 0.05.

Therefore, we accept the null hypothesis (primary): "There is a statistically significant effect of the role of digital management in achieving quality education."

Results and recommendations

Results :

- The great importance of digital management for the work of educational institutions in general.
- The digital management environment is a changing environment.
- Digital management has an important role in achieving quality education and raising the performance of educational institutions.

Recommendations:

- Highlighting the great importance of digital management in educational institutions.
- Holding training courses to qualify employees and administrative and teaching staff on the effective use of digital management.
- Working to close electronic gaps and enhance protection from expected electronic attacks.

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Questionnaire

Ladies/Gentlemen

I am honored to present to you this questionnaire for my study entitled: "The Role of Digital Management in Achieving Quality Education". We hope that you will answer the axes of this questionnaire with all logic and objectivity, as your answers will be completely confidential and for scientific research purposes only.

Thank you for your cooperation...

The first axis: demographic variables

Gender	Male	Female			
Age	25 years and above	30 – 25	40 – 31	41 years and older	
Educational Attainment	Preparatory	Bachelor's Degree	Higher Diploma	Master's Degree	Doctorate
Years of Experience	6 and below	10 - 6	15 – 10	15 and above	

The second axis: the degree of application of digital management to the quality of education

T	The phrases	Totally agree	I agree	not sure	I do not agree	I totally disagree
1	I am a supporter of digital management principles, especially in the field of education.					
2	Digital management provides modern and advanced educational models among students in					

	the field of education.					
3	Digital management can be considered an effective measure in the field of education at the level of progress and development of the country that applies it.					
4	Applying all digital management objectives within the educational institution in which I work.					
5	Digital management provides an opportunity for all students to complete their studies in different locations.					
6	Applying digital management objectives within the education system ensures an effective, advanced and productive environment.					
7	The comprehensive development in digital management, especially in the field of education, is closely linked to the social structure of individuals within that institution.					
8	E-administration works to provide important and necessary information in the field of education inside and outside the country.					
9	Digital management reduces the cost of services, businesses, information and the various procedures that accompany them.					
10	Digital management provides qualification, development, training and lifelong learning.					