Assessment Of Digital Transformation In Sabratha University

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Abstract

This study aims to evaluate the level of digital transformation by identifying the reality of digital transformation and its requirements in Libyan universities, Sabratha University as a model, as well as the impact of obstacles that limit its achievement and the standards that must be met to achieve digitization in the university. The researcher used the descriptive analytical approach, where questionnaires and interviews were used to collect data, in addition to analyzing some official university documents. A questionnaire form was designed as the main tool for the study and distributed to the targeted sample of faculty members at the university and some interviews with faculty members, where the study sample amounted to 150 respondents, and 106 items were obtained that matched the study's answers and questions. Among the most important results reached by the study: the study individuals showed a low trend of 61.0% towards the reality of digital transformation and its requirements within the university, and by 69.4% there is an impact of obstacles that limit the effectiveness of digital transformation. The study proposes recommendations to improve the efficiency of digital transformation and enhance integration between technology and the educational process.

Keywords: Digital Transformation – Sabratha University - Faculty member.

1- **Introduction**

The digital renaissance that the world is witnessing today, which has entered aspects of our daily lives and vital sectors such as health, work, education, and all fields, has become a major factor. With the end of the second millennium, societies began to move towards digitization due to the development of communications and the accompanying progress in information networks, the World Wide Web, e-mail correspondence, interviews and meetings via Zoom, mobile phones, satellites, and electronic applications. Thus, digital

transformation is a wide range of technologies and artificial intelligence, including applications, programs, network capabilities, artificial intelligence, machine learning, augmented and virtual reality. Digital transformation in higher education institutions in Libya is vital at present, as it requires higher education institutions to adapt to technological developments and modern requirements to improve the quality of education and reach larger groups of students. The digital transformation in higher education institutions in Libya is part of the digital transformation witnessed by the entire world, which is characterized by major changes in the methods of teaching, learning, and communication. These changes are the result of the developments of the Fourth Industrial Revolution and its rapid spread, as students can access information and educational resources from anywhere in the world via the Internet. Digital transformation has become a necessity for all institutions and bodies that seek to develop and improve their services and facilitate their access to beneficiaries. Digital transformation does not only mean applying technology within the institution; rather, it is a comprehensive program that affects how it works internally to provide the service in an easier and faster way. Modern technology has imposed itself on various fields, and the world has become closer to each other through electronic networks, and thus the issue of developing the educational system has become an important and necessary issue (Shehata, 2023). This tremendous, continuous, and accelerating development in digital technology has prompted countries around the world to reorganize their institutions, especially their educational institutions, to keep pace with this successive and growing development because the use of digital technology is no longer a luxury or a feature of distinction but has become one of the necessities that all institutions rely on, especially academic educational institutions and general and technical education institutions. Education in general and higher education institutions and Sabratha university in particular must have a role in human capital. Therefore, it is necessary to keep pace with development as they contribute to its advancement, from refining it, expanding its horizons, and developing its skills to become a creative and productive human resource. Still, the Sabratha university is considered very late in providing digitization programs, and it has failed to keep pace with this development. From this standpoint, this study came to explore the reality of digital transformation in terms of its existence, the availability of its requirements, and the obstacles that prevent its implementation.

2- **The problem of the study**

Technology has imposed itself on various fields represented in information technology, the Internet, and electronic devices, and the world has become close to each other thanks to the

spider networks, and thus the educational system has become an important issue so the its educational system must adapt to contemporary technology today. Digital education has become a priority for education today, and a necessity to keep pace with this era and its requirements in general and higher education in particular, which are changing daily. Among these requirements are e-books and virtual content such as lectures via electronic platforms and others. Today, higher education institutions in the era of digitization and digital transformation, especially in developing countries, including educational institutions in Libya, face many challenges, including infrastructure, and the study indicated in its results stagnation and lack of development of curricula and their weakness in keeping pace with cognitive and digital development. Hence, the problem of the study can be summarized in a main question, which is "The impact of digital transformation on Sabratha University."

3- **Study Methodology:**

The current study relied on the descriptive analytical method, due to the suitability of the method in achieving the study objectives. We also used the questionnaire as a tool to reach conclusions, as it contains main axes that cover the basic study questions and variables, and thus provide results and answers to the study questions.

- **Study community**:

It consists of all faculty members at Sabratha University.

- **Study sample:**

The questionnaire was sent electronically via email and through social media (WhatsApp) to faculty members at Sabratha University. In addition to distributing, it manually, the number of faculty members who responded was 106. Although the response rate was low, it provided the study with a sufficient number of responses to conduct statistical analysis.

- **Data analysis methods:**

We will use the " **IBM SPSS Statistics 27** " program to analyze the data and come up with results.

- **Study limitations:**

Spatial boundaries: Sabratha University

Time boundaries: 2024/ 2025

- **Objective boundaries**: digital transformation in higher education institutions (Sabratha University: a model)
- **Terminology:**

The most important terms included in the study are as follows:

Digital transformation is an institutional transformation realized through digital technologies and business models to improve the operational performance of the institution. Business models include the organizational structure, individuals and employees, technologies used, information management, services provided, and customer engagement models. (Al-Muslimmani, 2022).

- **Previous studies**:

1- Al-Swat study (2022). Entitled "The impact of Digital Transformation on the efficiency of academic performance" (A case study of the faculty members at King Abdulaziz University). The study aimed to identify the digital transformation to achieve the efficiency of academic performance of the faculty members at King Abdulaziz University in Saudi Arabia and to also identify the requirements of digital transformation and the impact of the obstacles that limit this. The researcher used the descriptive analytical method, and the questionnaire was used as a study tool as the study sample was from faculty members. The study reached the most important results, which are: that there is an effect of digital transformation to achieve the efficiency of academic performance of the university's faculty, and there is an effect of digital transformation through the requirements for digital transformation, as well as there is an indicative effect on the obstacles that limit digital transformation, and the study continued to work on removing obstacles and adhering to the standards that must be available.

2- Al-Maslamani's study (2022) entitled "Digital transformation in Egyptian universities (reality - requirements - obstacles) The study aimed to reveal the digital transformation in Egyptian universities, its requirements, and implementation obstacles. The descriptive approach was used, and a questionnaire was constructed directed to faculty members at universities. The study reached the following results: Egyptian universities have taken satisfactory steps towards digital transformation, and universities still need more measures to implement digital transformation, and there are obstacles facing Egyptian universities in their quest for digital transformation.

3- Zidane's study (2021) entitled "Digital transformation in higher education institutions: an evaluative study of opportunities and challenges - Al-Azhar University as a model" The study aimed to measure and evaluate the digitization project within higher education institutions by applying it to Al-Azhar University as a model, using the SWOT analysis to extract a comprehensive evaluation to identify the strengths, weaknesses, opportunities, and threats facing the digitization project in the institution. The study adopted the personal interview method and the

questionnaire form, which was applied to the available sample of administrative members in the various faculties of the university. The study reached the following results: Qualifying human resources is the most important requirement for digital transformation as well as developing the infrastructure. The university also used some electronic management, but the obsolescence of organizational structures and centralization of management are still among the most important weaknesses. The study recommended paying attention to providing a high-quality technological infrastructure and the need to spread digital awareness and its advantages.

4- Al-Qumbarī (2024). Digital transformation in higher education institutions: The Libyan Academy of Postgraduate Studies in Janzour as a model, the study aimed to identify the reality of digital transformation at the Libyan Academy for Postgraduate Studies in Janzour as a model of study, as well as to understand the requirements for digital transformation and the impact of obstacles that hinder its achievement. The study also aims to identify the criteria that must be met to achieve digitization at the Libyan Academy for Postgraduate Studies. The researcher used the descriptive analytical approach.

5- Al-Shaibani's study (2023) entitled "Digital transformation and its role in developing higher education institutions in Libya" The study aimed to identify the concepts of digital transformation and its role in the development of higher education institutions in Libya, its importance, objectives, and the difficulties facing university institutions in its implementation. The researcher used the descriptive approach based on describing the phenomenon that is the subject of the study. The study reached several results, namely: Digital transformation, due to the rapid and successive technological developments and the information explosion, has become an urgent necessity in life, and it has a fundamental role in the development of science. Digital transformation also has a fundamental role in raising the efficiency of faculty members and students and raising the quality of university education institutions. Several obstacles prevent the implementation of digital transformation, the most important of which is the weakness of the infrastructure. The study also recommended the use of the electronic system in university education institutions spreading the culture of digital transformation and providing its requirements.

6- Al-Sharbaji's study (2023) entitled "Obstacles to digital transformation in higher education institutions in the Libyan state, an applied study on Al-Marqab University" The study aimed to identify the obstacles to digital transformation in higher education institutions in the Libyan state, an applied study on Al- Marqab University,

through human, technical, legal, security and financial obstacles. The researcher used the comprehensive survey method by distributing a questionnaire to the study community (62). The study reached the most important results, which are: The security obstacles and financial resources necessary to implement the digital transformation project, which would raise the educational process, and interest in human resources by subjecting them to modern training programs in computers and setting laws and legislation that would help in implementing this vital project.

7- The study of Jami (2023) entitled "The Impact of Digital Transformation on University Education as a Requirement for Achieving a Knowledge Society" confirmed that the study aimed to identify the extent to which digital transformation in Egyptian universities contributed to achieving a knowledge society and the efforts made in this regard. The researcher used the descriptive approach in the study to describe, analyze, and interpret information related to digital transformation in universities objectively and scientifically and to reach results that contribute to achieving the desired goals and answering the study questions. The study tool is a questionnaire to survey the opinions of faculty members at Egyptian universities about digital transformation (its reality - its requirements and obstacles). The study reached several results, including the absence of the application of knowledge management within the university, and the weak ability of Egyptian universities to keep pace with the knowledge explosion. The study also recommended the creation of educational programs and new specializations based on raising the efficiency of universities and developing their infrastructure, providing electronic classroom management systems, and reducing electronic illiteracy.

8- Rayhan's study (2023) entitled "The extent of availability of the use of digital technology in schools in the Gaza governorates from the point of view of primary school teachers" The study aimed to identify the extent and use of digital technology in schools in the Gaza governorates from the point of view of primary school teachers. The researcher used the descriptive analytical method to obtain information and answer the study questions. The study was applied to several (376) male and female teachers in the Gaza Governorate for the year (2023-2022). The study reached several results, the most important of which is that there are positive trends among students in using modern technologies, and there are obstacles represented in the lack of financial and administrative support.

9- Al-Ajri's study (2022) entitled "The Proposed Achievement Strategy for Digital Transformation in Egyptian Universities

as a starting point that qualifies universities for Institutional Academic Accreditation" The research seeks to present an integrated and unified strategy that can be applied at the level of Egyptian universities, aiming to create an integrated digital university environment based on appropriate infrastructure and technology, in addition to establishing an integrated digital system. The researcher used the descriptive analytical approach in completing his steps, and the research reached several results, including that work must be done on the "material-technical" infrastructure that facilitates the process of digital transformation of the university and in a manner consistent with quality requirements, with the allocation of budgets to help with that.

4- **Comment on previous studies**:

Previous studies indicated several results, the most important of which were:

- **The reality of digital transformation**:
  - Digital transformation is making satisfactory progress towards digital transformation. This was indicated by the study (Al-Muslimmani, 2020, Al-Sawat, 2022)
  - Studies recommended qualifying and developing human resources on digital technologies (Zidan, 2021, Al-Sharbaji, 2023, Al-Sharif, 2021).

- **As for the requirements for digital transformation, they include the availability of:**
  - Spreading digital awareness and establishing legislation and laws (Al-Shaibani, 2023, Al-Sharbaji, 2023).
- **Obstacles to digital transformation:**
  - Obsolete organizational structures and centralized management (Al-Muslimmani, 2020)
  - Weak infrastructure and material support for equipping software and classrooms (Zidan, 2023, Al-Shaibani, 2023, Al-Sharbaji, 2023, Al-Qarawi, 2022, Jami, 2023, Rayhan, 2023 Obstacles to digital transformation:
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- **The current study agrees with previous studies in the following:**
- The importance of digital transformation in the university is a necessity and requires developing infrastructure and keeping up with the accelerating and growing digital transformation and keeping pace with it regionally and internationally.
- This study shed light on the reality of digital transformation at Sabratha University the availability of requirements that qualify it for digital transformation, and the obstacles that prevent this.
- The current study benefited from previous studies in terms of the theoretical framework and the approach through which digital transformation was addressed, statistical methods, and the selection of questionnaire items for the study, so this study is a continuation of previous efforts in this field.

The importance of digital transformation in higher education institutions

The importance lies in possessing the capabilities of digital technology capable of changing the higher education system, its means, resources, philosophy, role policy, and curricula until closed classrooms and book-based libraries almost disappear. (Al-Qarawi 2022,). Digital education also plays a major role in improving the educational process and improving the performance of its workers and contributes to solving most of the problems that may hinder learners, and works on rapid growth and development in educational institutions. It also helps in providing information at the lowest costs and works to stimulate scientific research and obtain information. (Al-Shaibani, 2023).

- **Objectives of digital transformation in higher education institutions:**

1- Supporting the level of performance: This is represented in the transfer of data and information and its flow between different departments.
2- Reducing administrative procedures from paperwork with the availability of information in its digital version.
3- Increasing productivity and reducing costs

- **Elements of digital transformation in higher education institutions:**

1- Technologies:
The tools and technologies of digital transformation are rapidly increasing and diversifying, especially in educational institutions, through the use of a system of devices, software, and innovations.

2- Data:
Big data occupies an important stage in the development of information and communication technology systems. In its simplified concept, it expresses a huge amount of complex data whose size exceeds the capacity of traditional software and computer mechanisms to store, process, and distribute it, which prompted specialists to develop alternative solutions to develop it and enable control of its flow and control. Big data technology also can analyze data.

3- **Human resources**:
Human resources are considered one of the most important resources in digital transformation, which can be done without, so it is necessary to provide qualified cadres capable of using data, analyzing it, and extracting results to make effective decisions.

- **Requirements for Digital Transformation in Higher Education Institutions**

Administrative leadership: Leadership is one of the most important elements of the success of the institution, as it directs all resources toward achieving the goals. When resources are available with a leader who is unable to direct,

organize, and coordinate human resources, then those institutions will not be able to achieve their goals. Also, the conviction, interest, and support of senior management to implement information technology in all institutions is one of the critical factors that contribute to achieving the success of electronic management.

- **Obstacles to digital transformation in higher education institutions:**

The most prominent obstacles facing institutions are the following:

- **Lack of understanding:**

Many institutions and others still do not rely on the true concept of digital transformation, so it is necessary to show the true concept of digital transformation.

- **Resistance to change:**

To implement the digital transformation project carries many variables, whether at the level of the level or the departments or the workforce, in terms of redistributing tasks and powers, which requires a change in administrative leadership and job positions, and therefore may often result in resistance to change.

- **Material obstacles:**

This is represented in providing material capabilities because this technology is in constant and rapid development, which requires catching up with it and following up on it.

- **Security obstacles:**

The information revolution has led to new types of confrontations and crimes, including electronic piracy, which is a source of threat to information security.

From the above, we find that many obstacles prevent the implementation of digital transformation in the best possible way, and the obstacles vary between institutions according to administrative, educational, and economic circumstances.

- **Overview of Sabratha University:**

It is one of the governmental universities in the State of Libya, and its administrative headquarters is in the city of Sabratha. It originally consisted of a group of colleges, some of which were founded in 1992 AD, where the affiliation of those colleges since their establishment was to the University of Zawiya until the issuance of Cabinet Resolution No. (157) of 2015 AD, which stipulates the establishment of the University of Sabratha and the separation of those colleges from the University of Zawiya and determining their affiliation to the University of Sabratha. The number of colleges in the university currently amounts to (23) colleges distributed over the regions (Sabratha, Sorman, Al-Jamil, Zliten, and Ragdalin). The number of faculty members at the university is (1383) members, the number of teaching assistants is (505) teaching assistants, and the number of

employees exceeds (1868) employees, while the number of students is approximately (14037) male and female students. The university strives to care for the human element and raise the level of the student scientifically, cognitively, and morally so that he contributes to raising a new generation characterized by knowledge and morality. It also seeks to achieve educational and professional quality to build scientifically qualified cadres, aware of the changes of the era, and fit for the labor market.

- **Study Procedures**

The study preparation process went through several steps, as follows:

- **Study tool**

We relied on the questionnaire to collect information from the study community (Sabratha University), and we formulated the questionnaire's vocabulary in its initial form in light of the theoretical framework, using previous studies in the field of content management to identify the validity of the questionnaire, then calculated the following two types of validity.

- **Personal interviews**:

They were conducted with five professors from faculty members from the period 23/12/2024 to 15/01/2025 using the telephone call method, the axes of which were as follows:

1. The reality of digital transformation.
2. Requirements of digital transformation.
3. Obstacles to digital transformation.

- **Validity of the arbitrators:**

To determine the validity of the arbitrators, the questionnaire was presented in its initial form to a group of specialized professors. The aim was to determine the suitability of the questionnaire for the purpose for which it was designed and to obtain their opinions and suggestions.

- **Internal consistency validity:**

To verify internal consistency validity, the correlation coefficient was calculated between the sample members' scores on each questionnaire item and the total score for each axis. The following table details the results.

The phases	Question No	Questions(The phrasel)	Correlation coefficient
The First Axes: **The reality of digital " transformation at "Sabratha University**	Q11	There is a clear vision for digital transformation within Sabratha University	0.821
	Q12	There is ready infrastructure To support the university's digital .transformation	0.809
	Q13	There is a practical framework for digital transformation within the .university	0.766
	Q14	The presence of digital educational curricula that contribute to digital transformation	0.757
	Q15	The presence of technology and smart devices within the university	0.776
	Q16	There is digital integration between the university and other .educational institutions	0.722
The Second Phase Digital Transformation Requirements at Sabratha University.			
	Q21	The faculty members are proficient in using modern technology.	0.643
	Q22	Training programs are organized for faculty members to employ it in the educational process.	0.556
	Q23	The internet is available throughout all university facilities.	0.775
	Q24	A modern digital library is available within the university.	0.573
	Q25	Modern digital (virtual) laboratories and labs are available.	0.665
	Q26	**The classrooms are electronically equipped for the educational process in the colleges.**	0.578
	Q27	There is a digital platform for scientific research and references	0.617
	Q28	The university has an official website where all its activities are published	0.365
	Q30	Each faculty member has an individual email account	0.469
The Third Axes:	Q31	There is no budget for digital transformation.	0.513

Obstacles to digital transformation at Sabratha University.	Q32	There is a lack of expertise needed for the digital transformation process.	0.790
	Q33	High costs of hardware, applications, and maintenance	0.632
	Q34	The absence of integrated operational management systems that achieve digital transformation.	0.608
	Q35	Lack of full knowledge of the concept of digital transformation	0.825

Table.(1) The previous table shows a strong positive correlation at a significance level of (0.01) between each item in the questionnaire's axes and the axis to which it belongs, indicating a high degree of internal consistency among the questionnaire's items.

Questionnaire consistency:

Table.(2) Reliability coefficient of the questionnaire

Number of paragraphs	**Cronbach's alpha reliability coefficient**
21	**0.910**

The previous table shows that the value of the internal consistency coefficient of the questionnaire is (0.910), which confirms that all the previous procedures have a high degree of stability on the current study sample and that they are valid for application. Therefore, the results that will be reached through the questionnaire will be reliable and dependable in reaching correct results.

Weights of answers according to the five-point Likert scale:

Table (3)
shows the points earned when correcting the questionnaire.

Answer	**Weight**	**Weighted Average**
Strongly agree	5	**4.2 - 5**
Agree	4	**3.4 – 4.2**
Neutral	3	**2.6 – 3.4**
Disagree	2	**1.8 – 2.6**
Strongly disagree	1	**1 – 1.8**

The previous table shows that all questionnaire statements were formulated positively and were corrected according to the five-point Likert scale

Study results:

Demographic characteristics of the study sample.

Distribution of the study sample according to demographic characteristics

Table (4)

Study variables	Data	Frequencies	Percentages
Gender	Male	71	%67
	Female	35	%33
	Total	106	%100
Academic qualification	Master's	66	%62.3
	PhD	40	%37.7
	Total	106	%100
Academic degree	Assistant Lecturer	25	%23.6
	Lecturer	40	%37.7
	Assistant Professor	28	%26.4
	Associate Professor	10	%9.4
	Professor	3	%2.8
	Total	106	%100

Processing Methods and Statistical Tools Used

The Statistical Package for Statistics (SPSS) was used, and the following statistical methods were employed:

- Correlation factor to measure the internal validity of the questionnaire and the correlation coefficient of each item with its axis.

- Cronbach's coefficient to measure the reliability of the questionnaire.

- Descriptive statistics, represented by frequencies and percentages.

- Calculating the relative average weight and standard deviations for the study questions.

Answering and Interpreting the Study Questions

With regard to answering the study questions, the questionnaire's axis statements were analyzed according to frequencies, percentages, arithmetic means, and standard deviations, accompanied by an interpretation of these answers in relation to each of the three axes.

First: The first axis: "The reality of digital transformation at Sabratha University."

The results are shown in the following table:

One-Sample Statistics

Table (5)

Question number	frequencies	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Mean	Std. Deviation	Percentage	Sample orientation	Question rank
Q11	Fr	7	44	24	27	4	3.25	1.022	65	Agree	1
	%	7.5	41.5	21.7	26.4	2.8					
Q12	Fr	2	17	33	46	8	2.61	0.911	52.2	Neutral	3
	%	1.9	16.0	31.1	43.4	7.5					
Q13	Fr	0	47	33	22	4	3.16	0.885	63.2	Neutral	2
	%	0	44.3	31.1	20.8	3.8					
Q14	Fr	1	14	23	47	21	2.31	0.970	46.2	Disagree	5
	%	0.9	13.2	21.7	44.3	19.8					
Q15	Fr	0	22	33	37	14	2.59	0.964	51.8	Disagree	4
	%	0	20.8	33.1	34.9	13.2					
Q16	Fr	0	11	31	38	26	2.25	0.947	45	Disagree	6
	%	0	10.4	29.2	35.8	24.5					
The entire axis							16.18	4.42	53.33	Disagree	//

The above table shows the following:

n/ The average arithmetic weight for the axis reached (16.18), representing a percentage of n nnb (53.33). This confirms that a large percentage of sample members responded neutrally and disagreed, i.e., a medium level of response to the axis' statements, indicating weakness on the part of Sabratha University in implementing digital transformation and infrastructure. Interview indicators from respondents (A., R., A. R.) regarding this axis, "The Reality of Digital Transformation at the University," supported the fact that the university is the official entity supposed to provide human capital and take the lead in digital transformation, as this digital transformation is extremely important for both professors and students. This is in addition to the unqualified and unprepared infrastructure, as well as the curricula, all of which are interconnected. Therefore, I do not believe the university is prepared for digital transformation.

- To determine the overall direction of the first axis =

$$\frac{(\text{higher degree} - \text{lower degree})}{(\text{number of alternatives})} = \frac{30-10}{5} = 4$$

- Each time, we will add a value of 0.40 to determine the direction of the sample as follows:

Second: In the second axis: "Digital Transformation Requirements at Sabratha University"

The answers came as following Table.

Trend	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Category	14 - 10	18 - 14	22 - 18	- 22 26	30 - 26

Table (6)

Question number	frequencies	Strongly agree	Agree	**Neutral**	Disagree	Strongly disagree	**Mean**	Std. Deviation	Percentage	**Sample orientation**	**Question rank**
Q21	ك	8	49	31	17	1	3.43	0.884		Agree	3
	%	7.5	46.2	29.2	16.0	0.9			68.6		
Q22	ك	4	27	17	49	9	2.70	1.062		**Neutral**	5
	%	3.8	25.5	16.0	46.2	8.5			54.0		
Q23	ك	11	40	35	15	5	3.35	1.005		Agree	4
	%	10.4	37.7	33.0	14.2	4.7			67.0		
Q24	ك	0	5	14	59	28	1.96	0.767		Disagree	9
	%	0	4.7	13.2	55.7	26.4			39.2		
Q25	ك	0	6	25	49	26	2.10	0.839		Disagree	8
	%	0	5.7	23.6	46.2	24.5			42.0		
Q26	ك	0	2	10	49	45	1.71	0.717		Strongly disagree	10
	%	0	1.9	9.4	46.2	42.5			34.2		
Q27	ك	0	18	17	41	30	2.22	1.042		Disagree	7
	%	0	17.0	16.0	38.7	38.3			44.4		
Q28	ك	0	66	35	1	0	3.64	0.503	71.6	Agree	2

	%	0	62.3	33.0	0.9	0					
Q29	ك	0	100	6	0	0	3.94	0.232	78.8	Agree	1
	%	0	94.3	5.7	0	0					
Q30	ك	0	14	41	27	24	2.42	0.985	47.8	Disagree	6
	%	0	13.2	38.7	25,5	22.6					
The entire axis							27.34	4.96	54.86	**Neutral**	\\

Table No. (6) above includes the statements of the second axis "Requirements for Digital Transformation at the University of Sabratha." The overall average reached (27.34), which falls within the range (26 - 34) on the five-point Likert scale, indicating a "Neutral" response. This means that the majority of the sample members believe there is a significant deficiency in providing the minimum and necessary requirements that greatly contribute to and assist in digital transformation. This result aligns with the study by Al-Shaibani (2023), which indicated that there are many obstacles preventing the implementation of digital transformation, the most important of which is weak infrastructure. The study recommended using electronic systems in higher education institutions, promoting a culture of digital transformation, and providing its requirements.

Based on the arithmetic averages, the statements were ranked in ascending order according to the level of agreement as follows:

- There is an email for all faculty members, ranked first with an average of (3.94) and a response level of "Agree."
- The university has a website that publishes all its activities, ranked second with an average of (3.64) and a response level of "Agree."
- Faculty members have the competence to use modern technology, ranked third with an average of (3.43) and a response level of "Agree."

This is largely consistent with the respondents (A. R, A. M) who stated that the institution lacks infrastructure in classrooms, referring to the simplest things starting from smart boards, and if they exist, they do not work. There is no internet access, no training programs, and no digital library. Consequently, the university lacks and suffers from many initial requirements that contribute to entering digital transformation.

- To determine the overall direction of the second axis = $\frac{(\text{higher degree} - \text{lower degree})}{(\text{number of alternatives})} = \frac{50-10}{5} = 8$

Trend	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Category	10 - 14	14 - 18	18 - 22	- 26 22	26 - 30

- Each time, we will add a value of 0.80 to determine the direction of the sample as follows:

Thirdly, the third axis: 'Obstacles to digital transformation at the University of Sabratha' The results of the responses are as follows in the table:

Question number	frequencies	Strongly agree	Agree	**Neutral**	Disagree	Strongly disagree	**Mean**	Std. Deviation	Percentage	**Sample orientation**	**Question rank**
Q31	Fr	0	6	25	49	26	2.10	0.839	42.0	Disagree	5
	%	0	5.7	23.6	46.2	24.5					
Q32	Fr	4	27	17	49	9	2.70	1.062	54.0	**Neutral**	2
	%	3.8	25.5	16.0	46.2	8.5					
Q33	Fr	0	22	33	37	14	2.59	0.964	51.8	Disagree	3
	%	0	20.8	31.1	34.9	13.2					
Q34	Fr	8	48	32	17	1	3.42	0.883	68.4	Agree؈	1
	%	7.5	45.3	30.2	16.0	0.9					
Q35	Fr	1	19	18	57	11	2.45	0.937	49.0	Disagree	4
	%	0.9	17.9	17.0	53.8	10.4					
The entire axis							13.27	3.19	53.04	Disagree	//////

The previous table illustrates the responses of faculty members at the University of Sabratha regarding the third requirement: "Obstacles hindering the implementation of digital transformation within the university."

The total weighted score was (13.27), representing (53.04%), which, according to the weighted arithmetic mean, indicates a low significance level. This suggests that the majority of the sample agree on the lack of budgeting and the absence of administrative systems, both of which are essential enablers for achieving digital transformation.

These findings are consistent with the study of Jumaei (2023), which emphasized the importance of enhancing the efficiency of Egyptian universities, improving their infrastructure,

implementing electronic classroom management systems, and reducing digital illiteracy.

Based on the calculated means, the statements were ranked in ascending order according to the degree of agreement as follows:

- "The absence of integrated administrative and operational systems that enable digital transformation" ranked first, with a mean score of (3.42) and a response level of "Agree".
- "There is a lack of expertise necessary for the digital transformation process" ranked second, with a mean score of (2.70) and a response level of "Neutral".
- "The high cost of acquiring devices, applications, and maintenance" ranked third, with a mean score of (2.59) and a response level of "Disagree".

The interviews with the respondents added that (A. R) pointed out that among the obstacles is the lack of interest from leadership and decision-makers, indicating their disbelief in this matter, as well as the absence of the necessary culture to support digital transformation. Regarding the budget, I find it not to be a hindering factor because Libya is very rich in funds. (A. R) also mentioned that the obstacles include resistance to change from the human side, particularly decision-makers and service providers within the institution, especially the older individuals and younger ones who lack knowledge of digitization and fear that they will lose much of their influence.

- To determine the overall direction of the third axis = $\frac{(\text{higher degree} - \text{lower degree})}{(\text{number of alternatives})} = \frac{25-10}{5} = 3$
- Each time, we will add a value of 0.30 to determine the direction of the sample as follows:

Trend	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Category	10 - 13	13 - 16	16 - 19	- 22 19	22 - 25

Regarding the overall axes, the results are as follows:

S.N	Axes	Mean	Percentage	Rank
1	**First Axis**	**16.18**	**53.33**	**2**
2	**Second Axis**	**27.34**	**54.86**	**1**
3	**Third Axis**	**13.27**	**53.04**	**3**

The previous table shows that the second axis (Requirements for Digital Transformation at the University of Sabratha) received the highest percentage at (54.86%), followed by the first axis (The Reality of Digital Transformation at the University of Sabratha) with (53.33%), and then the third axis (Obstacles to Digital Transformation at the University of Sabratha) with (53.04%).

This indicates that the university still requires further measures to implement digital transformation. This can be attributed to the persistence of numerous unmet requirements and existing obstacles that hinder the adoption and advancement of digital transformation at the University of Sabratha.

Conclusion:

The rapid technological development in our world today has permeated all aspects of our scientific and practical lives, advancing sciences and culture, and undoubtedly education as well. Digital transformation in educational systems has become a necessity, as educational frameworks have evolved into scientific platforms, digital libraries, and web networks through which communications, lectures, and meetings are conducted. This has made the delivery of information faster and more efficient, guiding students to knowledge sources with ease and at lower costs. Consequently, the role of the professor in educational institutions has become one of guidance, and thus, the University of Sabratha must keep pace and move towards digital transformation.

- **Results and Recommendations**

  - **First: Results**

The study reached the following results:

1- The results of the study showed that the level of digital transformation reality was low from the point of view of the study sample members, as the average response value reached (16.18).
2- The study showed that the availability of digital transformation requirements was low from the point of view of the study sample members, as the average response value reached (27.34).
3- The results of the study showed that the level of obstacles to digital transformation was very low from the point of view of the study sample members, as the average response value reached (13.27).

- **Second: Recommendations**

1- Developing the infrastructure as an important requirement and basis for the digital transformation process, represented by (the Internet, the digital library, electronic classes, laboratories, and digital platforms for databases).

2- Formulating a strategy for digital transformation.
3- Working to spread the culture of digital transformation within the university to employ technology in the learning process.

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