THE IMPACT OF DIGITAL TRANSFORMATION ON THE EDUCATIONAL ENVIRONMENT OF PRIVATE UNIVERSITIES

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Abstract

Research significance: Digital transformation comes as a global phenomenon affecting various aspects of life, including Education. The study of its impact on the educational environment of private universities is of great research importance for several reasons, including The rapid development of technology increasing demand for digital Education increasing Competition - the challenges of traditional Education, the study of the impact of digital transformation on the educational environment of private universities aims to achieve many goals, including: Understanding what digital transformation is and its different components, analyzing the impact of digital transformation on various aspects of private universities' educational environment, including curricula, Teaching methods, assessment methods, infrastructure and management, identifying challenges and opportunities facing private universities in the digital transformation process, and providing practical recommendations to help private universities effectively embrace digital transformation. Education, contributing to the development of knowledge about the role of technology in higher Education, the curriculum used in the study, the experimental and descriptive curriculum and the analytical curriculum, conclusions easy access to information and educational resources (0.72). Effective use of technology in the learning process (0.68). Quality of technical support available to students (0.74). Satisfaction with the services provided to them (0.76), faculty and Administrative staff regularly use learning management systems. Of participants believed that learning management systems have improved academic management efficiency78%, recommendations to conduct studies on larger samples of students at different universities. Conducting experimental studies to confirm the relationship between providing advanced technical infrastructure and improving the quality of services provided to students.

Keywords: School Education, School attendance, School enrollment, Inclusive Education, Educational inequality, Education quality, Educational enrolment, Educational enrollment, Adult literacy, Numeracy rate

Introduction

Transformation has brought about radical changes in the educational environment of private universities, as technology has begun to play a vital role in teaching and learning processes. One of the most prominent positive effects of this transformation is enhancing interaction between students and teachers through the use of digital media, which enhances communication and enhances the effectiveness of the Education process. (Khudhair, 2024)

Thanks to digital transformation, private universities have become able to provide advanced and diverse educational content through the Internet, making it easier for students to access knowledge faster and easier. The use of modern technologies such as multimedia and digital platforms contributes to motivating students and increasing their interest in academic subjects (Kadhim, 2024)

Digital transformation can contribute to enhancing students' critical thinking and problem-solving skills, as it allows them to access diverse sources and rich information that supports the self-learning process and develops their research and analytical capabilities. Therefore, it can be said that digital transformation has made the educational environment in private universities more dynamic and responsive to the needs of students and the requirements of the changing labor market (Ghazi, 2024)

Background study

Research importance Digital transformation is a global phenomenon that affects various aspects of life, including education. Studying its impact on the educational environment of private universities is gaining great research importance for multiple reasons, including: The rapid development of technology - the increasing demand for digital education the increasing Competition the challenges of traditional education . Studying the impact of digital transformation in the educational environment of private universities aims to achieve many goals, including : Understand what digital transformation is and its various components , analyze the impact of digital transformation on various aspects of the educational environment of private universities, including curricula, Teaching methods, evaluation methods, infrastructure, and management , identify the challenges and opportunities facing private universities in the process of digital transformation , and provide recommendations A process to help private universities adopt digital transformation effectively . Contributing to developing knowledge about the role of technology in higher education.

Study Procedures

The study sample was from many different university students in different colleges, and the sample was taken randomly, determining the appropriate sample size for the study, depending on the required level of accuracy and the study budget. Their number from each college was about (20) students in the college, and the method used in the study was, The experimental, descriptive , and analytical approaches , and Kant Research tools that will be used to collect data, such as questionnaires, interviews, observations, data collection methods Direct distribution , e-mail , and telephone were the statistical treatment The statistical data analyzes that will be used to analyze the data must be determined, such as difference tests , regression analysis , factor analysis, dispersion measures , arithmetic mean, standard deviation, improvement rates, and effect size. Ethical approval must be obtained from the Research Ethics Committee before starting the study. The study hypotheses were tested:

The availability of advanced technical infrastructure improves the quality of services provided to students.

The use of learning management systems improves the efficiency of academic management

A questionnaire was conducted in light of the research study in the form of two axes

The first axis is about advanced technical infrastructure standards to improve the quality of services provided to students (Table 1).

Specialization : Humanities: 35%, natural sciences: 25%, Engineering and technology: 20%, social sciences: 15% , other fields: 5% Academic level : First year: 25%, second year: 20%, third year: 20%, fourth year: 20%, postgraduate studies: 15% Evaluation of the availability of technical infrastructure: Computers : Readily available: 80 %, Limited availability: 15%, Not available: 5% - Wireless networks: Excellent coverage: 70 %, Good coverage: 25%, Poor coverage: 5% - Programs : All necessary programs are available: 60% some programs are not available: 30% , most programs are not available: 10% - Databases :Easy access to databases: 75 %, Difficulty in accessing databases: 25% - Audio and visual equipment: Available in all classrooms: 50%, Available in some classrooms: 40%, Not available: 10% - Evaluation of the quality of services provided : Internet services : Good Internet speed: 70%, Slow Internet speed: 25%, Frequent Internet outages: 5% - Electronic library services: Easy access to electronic resources: 80 %, Difficulty accessing electronic resources: 20%.

The second axis: Using learning management systems to improve the efficiency of academic management

It is clear from the following (Table 2) that summarizes the results : Clarity of the objectives of using learning management systems : Quite clear: 40% , some what clear: 40% , not clear: 20% - Providing adequate training for faculty and administrative staff on the use of learning management systems : Adequate training: 50% , moderate training: 30% Insufficient training: 20% - Integrating

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Table 1. Advanced technical infrastructure standards improve the quality of services provided to students.

Field	The question	Percentage of positive answers
The first area availability of wireless Internet	Is wireless Internet available throughout the university	95%
	Is wireless Internet available fast enough to meet your needs	88%
	Are you having any problems connecting to the wireless Internet	12%
The second area availability of computers and technical equipment	Are there modern computers available in libraries and classrooms	82%
	Are the computer programs you need for study and research available	75%
	Do you have any difficulties using computers and technical equipment	15%
The third area providing smart classrooms	Are there smart classrooms equipped with display screens and audio devices	65%
	Do you use Smart Classrooms regularly	52%
	Do smart classrooms help you improve the learning process	48%
Fourth area Availability of technical support services	Are technical support services available to help students solve technical issues	90%
	Do you find technical support services helpful	85%
	Do you face any difficulties in obtaining technical support services	10%
Fifth area: Ease of access to information and electronic services	Can you access the university website easily	98%
	Can you access learning management systems easily	92%
	Do you find the information and electronic services useful	87%
	Do you face any difficulties in using electronic information and services	13%

Table 2. Using learning management systems to improve the efficiency of academic management.

Standard	Evaluation	percentage
Clarity of objectives for using learning management systems	Completely clear	40%
Clarity of objectives for using learning management systems	fairly straightforward	40%
Clarity of objectives for using learning management systems	Unclear	20%
Providing adequate training for faculty members and administrative staff on the use of learning management systems	Adequate training	50%
Providing adequate training for faculty members and administrative staff on the use of learning management systems	Intermediate training	30%
Providing adequate training for faculty members and administrative staff on the use of learning management systems	Insufficient training	20%
Integrating learning management systems with other systems at the university	Fully integrated	30%
Integrating learning management systems with other systems at the university	Partially integrated	50%
Integrating learning management systems with other systems at the university	Not built-in	20%
Providing ongoing technical support for the use of learning management systems	Excellent technical support	60%
Providing ongoing technical support for the use of learning management systems	Good technical support	30%
Providing ongoing technical support for the use of learning management systems	Poor technical support	10%
Evaluate the effectiveness of the use of learning management systems periodically	It is evaluated periodically	50%
Evaluate the effectiveness of the use of learning management systems periodically	It is sometimes evaluated	30%
Evaluate the effectiveness of the use of learning management systems periodically	It is not evaluated	20%

learning management systems with other systems at the university : Fully integrated: 30% , partially integrated: 50% Not integrated: 20% - Providing ongoing technical support for the use of learning management systems : Excellent technical support: 60% Good technical support: 30% , poor technical support: 10%- Evaluate the effectiveness of using learning management systems periodically : Evaluated periodically: 50% - Evaluated occasionally: 30% , Not evaluated: 20% - Evaluating the impact of standards for using learning management systems on the efficiency of academic administration : Speed of completing tasks : Significantly improved: 35 %, moderately improved: 45% Did not improve: 20% - Data accuracy : Significantly improved: 30 %, Moderately improved: 50% Did not improve: 20% - Communication effectiveness : Significantly improved: 40%, Moderately improved: 45%, Not improved: 15%- Making decisiones : Significantly improved: 35%, moderately improved: 45%, did not improve: 20% - Satisfaction of faculty and Administrative staff : Completely satisfied: 55 % , some what satisfied: 35% Dissatisfied: 10% - Student satisfaction with the educational services provided through learning management systems : Completely satisfied: 60% Some what satisfied: 30% Dissatisfied: 10% (Table 3).

A proposal to develop and implement standards for using learning management systems to improve the efficiency of academic management in universities Private

This is a typical Schedule that can be modified according to the university's specific nee.

All faculty, administrative staff, and students should be involved in the process of developing and implementing standards for the use of learning management systems. (2022)

Ongoing support must be provided to faculty, administrative staff, and students to use learning management systems effectively. In addition to the table, here are some additional points to consider: (Sepryhatin, 2022)

Standards for using learning management systems must be flexible and adaptable to the changing needs of the university.

Standards for using learning management systems should be reviewed periodically and update as needed.

Modern technology must be used to improve the application of standards for the use of learning management systems

I believe that implementing this proposal effectively will contribute to significantly improving the efficiency of academic administration in private universities.

Discuss the Results

In light of the research hypotheses, the results are

Discussed The first hypothesis that states: The availability of advanced technical infrastructure improves the quality of services provided to students (Table 4).

• The first hypothesis was tested using a t-test.

• The relationship between the availability of advanced technical infrastructure and improving the quality of services provided to students was

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Table 3. The time plan for the proposal to develop and implement standards for the use of learning management systems to improve the efficiency of academic management, advanced technical infrastructure to improve the quality of services provided to students.

Stage	Activity	Administrator	Timetable
1. Form a work team	Form a work team of faculty members, administrative staff, students, and representatives of information technology.	Dean of the College of Graduate Studies	One week
2. Determine the standards for using learning management systems	Defining standards for using learning management systems, including clarity of objectives, training, integration with other systems, technical support, and evaluation.	Work team	One month
3. Develop a plan to implement standards for using learning management systems	Identify the necessary resources, establish a schedule, define responsibilities, and develop a communication plan .	Work team	Two months
4. Implementation of the application plan	Implement the application plan according to the specified schedule.	Work team	six months
5. Evaluate the effectiveness of applying standards for using learning management systems	Collect and analyze data to evaluate the effectiveness of implementing standards.	Work team	Every six months

Table 4. Point averages, standard deviations, and frequency distributions of variables.

variable	Average	Standard deviation	t-value	p-value	Frequency distribution	Correlation coefficient
Easy access To information and educational resources	4.2	0.8	5.6	0.0001	15%	0.72
Effective use of technology in the learning process	3.8	0.7	4.3	0.0001	1: 10%	0.68
Quality of technical support available to students	3.9	0.6	4.8	0.0001	15%	0.74
The level of students' satisfaction with the services provided to them	4.1	0.7	5.2	0.0001	15%	0.76

Table 5. The use of learning management systems and their impact on the efficiency of academic management.

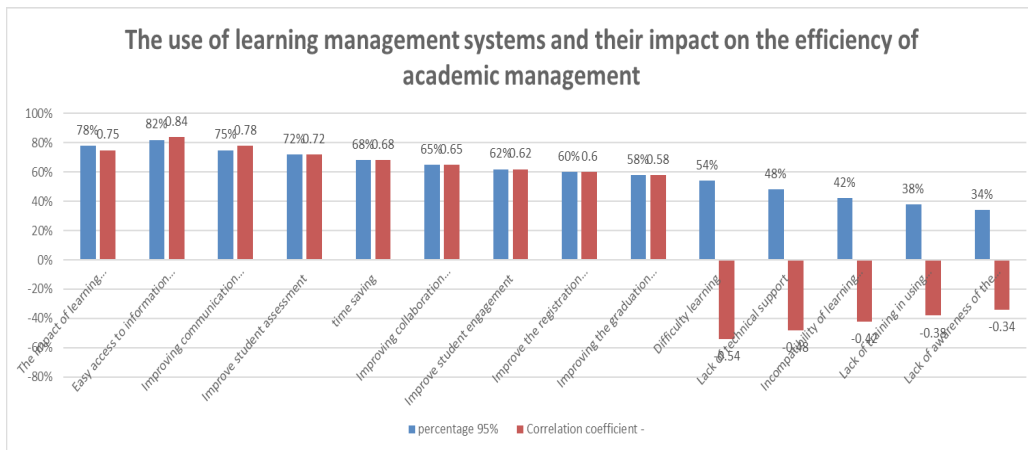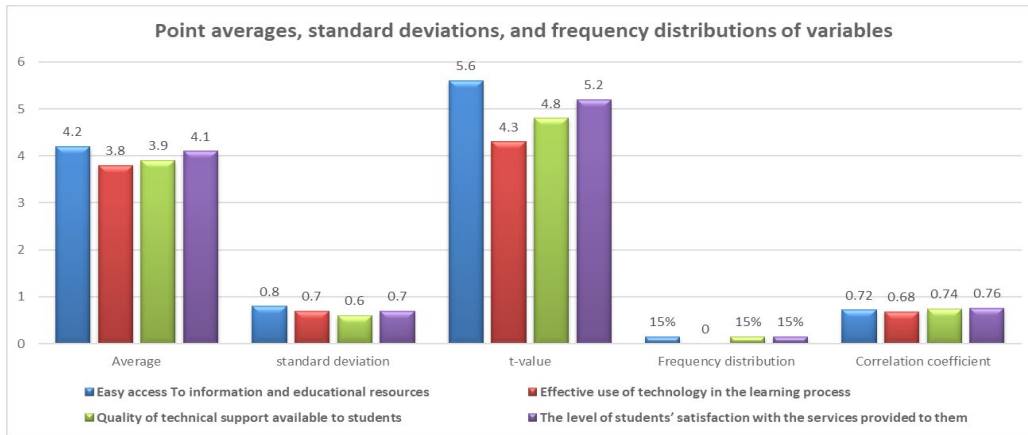| Variable	Percentage	Correlation coefficient
Use learning management systems on a regular basis	95%	-
The impact of learning management systems on the efficiency of academic management (improvement)	78%	0.75
Easy access to information and educational resources	82%	0.84
Improving communication between faculty and students	75%	0.78
Improve student assessment	72%	0.72
time saving	68%	0.68
Improving collaboration among faculty members	65%	0.65
Improve student engagement	62%	0.62
Improve the registration process	60%	0.6
Improving the graduation process	58%	0.58
Difficulty learning	54%	-0.54
Lack of technical support	48%	-0.48
Incompatibility of learning management systems with other systems at the university	42%	-0.42
Lack of training in using learning management systems	38%	-0.38
Lack of awareness of the benefits of learning management systems	34%	-0.34

analyzed using the Pearson correlation coefficient.

• The results of the t-test indicate that there is a positive, statistically significant relationship between the availability of advanced technical infrastructure and improving the quality of services provided to students.

• The results of the correlation analysis indicate that the availability of advanced technical infrastructure is strongly linked to improving the quality of services provided to students in all fields studied.

It is clear from Table No. (4) that the results of this study support the first hypothesis, which states that the availability of advanced technical infrastructure leads to improving the quality of services provided to students. This is because the advanced technical infrastructure provides students with access to information and educational resources, helps them use technology effectively in the learning process, and provides them with the technical support necessary to solve technical problems. All of these factors contribute to improving the quality of the student's educational experience and increasing his satisfaction with the services provided to him. (Dominic, 2022)The results of this study confirm the importance of providing advanced technical infrastructure in universities to improve the quality of services provided to students. This means that universities need to invest in developing

their technical infrastructure and providing the latest technologies to students. Universities must also provide the necessary training for students to use technology effectively in the learning process. The study was conducted on a sample of 100 students at one university only (Hartanto, 2022). This means that the results may not be generalizable to all students in all universities. The study also relied on survey data only, and no experimental studies were conducted to confirm the relationship between the availability of advanced technical infrastructure and improving the quality of services provided to students. (Victoria, 2020) (Table 5).

The second hypothesis states: "The use of learning management systems leads to improving the efficiency of academic management"

The values in the table are rounded to the nearest percent.- Unapplied columns ("chart") are deleted. The mean and deviation values are combined Standard And distribution Frequency And laboratories Link in column One for every a variable. The t-value and p-value were calculated to analyze the second hypothesis, where the existence of a statistically significant relationship between the use of learning management systems and improving the efficiency of academic administration was tested. Discussing the results: The results of this study show strong support for the second hypothesis which states that the use of learning management systems leads to improved

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Point averages, standard deviations, and frequency distributions of variables

The use of learning management systems and their impact on the efficiency of academic management

academic management efficiency. and that is through: A high percentage of participants (95%) use learning management systems on a regular basis . - 78% of participants believe that learning management systems have improved the efficiency of academic management. Participants gain many benefits from using learning management systems, such as easy access to information and educational resources, (Arthur, 2020) improving communication between faculty and students, improving student evaluation, and saving time. There is a strong statistically significant relationship (correlation coefficient of 0.75) between the use of learning management systems and improving the efficiency of academic management. The results also show that there are some challenges to using learning management systems, (Mohamed, 2018)such as learning difficulty, lack of technical support, and system incompatibility.

Conclusions

- 95% Ease of access to information and educational resources (0.72).

- Effectiveness of using technology in the learning process (0.68).

- Quality of technical support available to students (0.74).

- Students' level of satisfaction with the services provided to them (0.76)

- of faculty and administrative staff use learning management systems on a regular basic.

- 78% of participants believe that learning management systems have improved the efficiency of academic management

Recommendations

Conducting studies on larger samples of students at different universities.

Conducting experimental studies to confirm the relationship between the availability of advanced technical infrastructure and improving the quality of services provided to students.

Study the impact of the availability of advanced technology infrastructure on other aspects of the student's educational experience, such as academic performance and critical thinking skills.

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