

## **Issues and Challenges of E-Learning System Adoption in a Public University of Afghanistan: A Case Study of Shaikh Zayed University.**

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**Abstract:** E-learning, a tool emerged from information technology, has been integrated in many university teaching programs. There are numerous factors that must to be considered when implementing a curriculum offers e-learning based courses in a university. The main purpose of this research study is to investigate the issues and challenges that influence the successful implementation of e-learning in public universities of Afghanistan.

This study was conducted at Shaikh Zayed University, Khost, Afghanistan and the respondents who participated in the questionnaire survey were university administrative staff, students and academic staff. In order to successfully identify and overcome the issues, a number of issues prevailing in a public university of Afghanistan were identified through an in-depth literature review and questionnaire survey carried out at Shaikh Zayed University. The data collected from the participants was analysed using Statistical Package for Social Sciences (SPSS).

Findings showed that barriers such as lack of awareness, lack of linguistic skills, lack of full-time power supply, lack of institutional support, lack of access to computer, cultural barriers and technical difficulties are the main challenges hindering the integration of e-learning system.

**Keywords:** E-learning, Challenges, Higher Education, Shaikh Zayed University

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### **I. INTRODUCTION**

With the development of information and telecommunication technology, information transfer around the world has undergone a major change and it is also rapidly evolving, especially in the field of education. They accelerate the learning process, facilitate learning, value education, and significantly improve the quality of education and others that were not available before technology. Currently, technology permit lecturers can provide new and timely information for students as well as arrange courses online so that everyone has access to them everywhere. Students can also easily access courses, study materials or download them from other effective sources online. Noteworthy, however, is that knowledge is about to change every day, and technology fields have changed over time as well as modern-day technological logos, such as mobile computers, electronic book readers, television, video, mobile phones and more. In view of all this, it can be briefly said that today's knowledge is old tomorrow and tomorrow's tomorrow.

Although Afghanistan is a war-torn country, in addition to other areas, the education sector, especially higher education institutions, has suffered the most. But for over half a decade, the Ministry of Higher Education of the Islamic Republic of Afghanistan has made remarkable progress in this area with special attention and with the help of international partners, and so has been progressing. But Information and communication technology, including new and modern technologies at Afghan public universities, have covered a very short field of electronic education. In 2019, only five courses being published online namely (The customs and tradition of Afghanistan. Pashtunwali and its Foundations, Introducing Six Prominent scientific and literary figures of Afghanistan(10-13 centuries), Introduction to Five Stars of Pashtu Literature, Mawlana Jalal-Uddin Muhammad Balkhi\_Rumi: The Greatest Mystic Poet of All Time, Contemporary Manuscript Illumination of the Heart). The reasons for the decline are addressed by some challenges and issues, such as full-time electricity, high-speed internet bandwidth, skills, infrastructures, Public awareness, cultural issues, financially supported, lack of a standard curriculum, linguistic issue, security issues and so on are the things that have prevented the implementation of e-learning system most effectively. Not to mention that e-learning gives students the opportunity to study on their own and to do it everywhere, whether at home or in the market, regardless of security issues and other engagements. And if it is with friends, it is a nightmare, and it is not

limited to the time and place of the day, it will not prevent them from learning on the one hand because of busyness and security issues. They will have access to the latest and updated information, such as e-training or education that is performed on electronic devices as noted above. With regard to e-learning, it has been said that one of the important benefits of applying this method to learning is to motivate students to learn on their own, to feel responsible for their learning and to believe in themselves.

E-learning has helped many nations to generate, disseminate, use, and expand internet-based learning among citizens for the benefit of society and the economy. While faced with the challenge caused by many years of wars and conflict, Afghanistan is harnessing e-learning techniques to expand education and training opportunities in the face of lack of infrastructure and very low literacy levels. Whereas a number of e-learning initiatives exist in the higher education sector, many e-learning projects have been working such as eCampus Afghanistan, PEACE project in some universities such as Kabul and Shaikh Zayed universities. But the adoption of e-learning in higher education universities is still low. Till there has not been an attempt to carry out a countrywide investigation to specify the obstacles hindering e-learning adoption in higher education institutions.

Therefore, the main objective of this study is to identify the major key challenges and issues hindering e-learning system adoption in Afghan higher educational institutions. The study helps all Afghan higher educational universities to address the identified challenges and issues followed by the recommended strategies.

### **1.1 e-learning**

Technologies are changing the style of learning from the traditional chalk and talk to technology-based learning process. E-Learning has and will continuously change the method of teaching and learning especially in institutions of higher education countrywide. The main objective of e-learning is to increase the flexibility of obtaining knowledge besides the traditional lecture concept.

However, it does not mean that the implementation of e-learning is to change or disregard lecture rooms or lecturers but it helps to strengthen the teaching and learning process by utilizing technology. This also means that e-learning will not only change traditional learning system to the online version but also add values to the learning experience as well as supporting new methods in teaching and learning in higher education institutions [1].

E-learning environments emphasize student activity, problem-centered rather than subject-centered learning. Students have more chances to interact with learning objects directly. The study process much be more comprehensive and lengthy rather than divided into small classes. The teacher's role in teaching is varying from being the single information deliverer to being an organizer, guided, and instructing person [2].

One of the most important areas that technology can greatly contribute to is education. Along with the fast emerging of the networking and communication technologies and advances, these applications reformed the learning and educational system. Educational technologies have rapidly developed in recent years where new technology-based learning techniques and channels have been emerged and utilize the communication, Internet, and computer technologies. E-learning is the main umbrella of all these methods since it refers to learning that is delivered via a range of electronic technologies [3].

### **1.2 e-learning system characteristics**

There are a lot of research attempts to define the characteristics which make an effective learning system. Each aspect of the e-learning system has been explored such as the instructors, learners, courses and technology. There are some key e-learning system characteristics given below [4].

#### **1.2.1 System functionality**

1. The e-learning system allows students to effectively organize their educational activities.
2. The e-learning system provides the ability to adapt at the time and place of learning.
3. The e-learning system provides a way to take tests and submit assignments.
4. The e-learning system demonstrates the course materials in an effective and understandable format.

#### **1.2.2 System interactivity**

1. The e-learning system provides interactive communication among teachers and students.
2. E-learning system facilitates interactive communication among students.

#### **1.2.3 System Scope**

1. The response time of an e-learning system should be fast.
2. The response time of an e-learning system should be generally reliable.
3. The response time of an e-learning system should be generally sensible.

The above mentioned e-learning attributes greatly influence learners to see that e-learning system is easy to utilize and useful. Students can use such an e-learning system to accomplish the key needs, which is either to supplement the material in real-world classroom or to learn entirely from the stand-alone remote learning system.

## **II. REASONS FOR E-LEARNING IN AFGHAN HIGHER EDUCATION PUBLIC UNIVERSITIES.**

Researchers need to consider the impact of social, cultural and economic issues residing within a country when introducing and integrating e-learning into the educational system [5]. These issues significantly affect the thinking of the users and play an important role in shaping perceptions and uptake of technology. Gradually, the government of Afghanistan recently began shifting government universities toward the use of e-learning techniques such as video conferencing as an alternative to conventional university education. Although these initiatives have been encouraging, Afghanistan still has to go a long way to reap the benefits of e-learning in order to compete with international educational standards. Failure to take advantage of the possibilities offered by e-learning presses the need for an in-depth review of the underlying issues. Based on the literature review and survey conducted several e-learning issues relevant to the background of Sheikh Zayed University have been identified and explained below:

### **2.1 Technical Difficulties**

Technical issues are an important aspect of implementing and integrating e-learning technologies in the education system. These include installation, availability of the latest technology, high-speed Internet connectivity, uninterrupted power supply, maintenance, management, security and lack of technical support. [6] argue that most developing countries are implementing information and communication technologies (ICTs) and There are no quality experts for maintenance of the system.

### **2.2 Access to Computers**

It refers to the availability of computers for students at all times within the university hours. Equal access requires sufficient computers and computer labs with a calm and peaceful atmosphere. The availability of personal computers at home is often not a reality for individuals in developing countries. Therefore, unequal access to computers can be a serious challenge to the acceptance of technology by the students. According to Curran (2001), unequal access to online learning indicates inequality not only among the developed and underdeveloped countries, but also inequality amongst the socio-economic groups within a society.

### **2.3 English Competency**

English as a medium for instruction is a serious hindrance of promoting e-learning in none English speaking countries like Afghanistan [7]. Students having low proficiency are not likely to use e-learning because of low confidence in understanding the contents of English written materials.

### **2.4 Awareness**

In the context of information systems, the level of awareness is the knowledge of the existence and significance of computer technology. Knowledge and understanding of the e-learning benefits motivate the students to participate. [8] Suggested that user's satisfaction is closely related to active participation and commitment. Students unaware of the benefits of e-learning are likely to get frustrated easily as they may take it as a time-wasting activity. Without realizing the importance of a particular technology and its contribution to the achievement of goals, successful integration of technology is difficult.

### **2.5 Computer Literacy**

According to Croxall & Cummings (2000), the level of expertise in computer technology is an important factor in the successful adoption of technology. Confidence in the skill and ability to use e-learning will play a significant role in the use of technology. The more experience consumers have in using the Internet and computers, the more likely they are to accept and use e-learning [9].

### **2.6 Electricity Issue**

At the present time, the world of technology is also told that technology is used more and more in the process of learning and teaching, with positive results like the sun. But the constant electricity for technology that has the same spirit qualities is lacking in many countries, especially in Afghanistan, and is lacking in some rural areas. It has to be examined if the quality of the electricity is sufficient for such learning at the Afghan universities. In the case of regular daily shutdowns, concepts for guaranteeing permanence and sustainability of the simulated teaching and learning have to be established.

## 2.7 Cultural Barrier

In order for virtual teaching and learning to succeed, high competence and openness towards new learning processes are required at the universities. These processes and decisions have to be made transparent to all involved parties: executives, persons responsible for education and further training, involved employees and especially women. Furthermore, a culture of autonomous learning, analytic thinking and personal initiative of the employees are required during education and further training.

## 2.8 University leadership Engagement

In the implementation of e-learning system in Afghan public universities, university leadership is the cornerstone to engage in this process. Because university leadership can minimize some issues and challenges that face the implementation of this new and modern type of education into the current traditional infrastructure in Afghanistan and can assure the necessary acceptance of the users.

### III. METHODS

The main objective of the study was to identify the key issues and challenges hindering the successful implementation of the e-learning system in public universities of Afghanistan. The research study was conducted at Shaikh Zayed University, Khost, Afghanistan among the public universities of Afghanistan. Because Shaikh Zayed university has been provided some basic e-learning services as each and every faculty countrywide lunches one course to teach students of the public universities in Afghanistan. A quantitative research method was used to collect and investigate information regarding the identified factors. The questionnaire was developed based on the five-point-likert-scale with the endpoint Strongly Agree and Strongly Disagree. The target group of the questionnaire survey was comprised of Administrative Staff, Students, and Academics staff of the selected university. The questionnaire instrument was divided into three separate sections (students, administrative staff, and academic staff). A total of 250 sample size was selected for the study.

### IV. RESULT

All the compiled data were collected from the academic and administrative staff currently working at Shaikh Zayed University and the students of different faculties, for identifying the most considerable e-learning issues and challenges experienced by the aforementioned groups of respondents using descriptive and frequency analysis. The most significant issues and challenges were analyzed by the mean value of the items. The following tables demonstrate the mean and responses of the target groups in terms of percentage.

#### Technical difficulties

The following table 1 shows that all the technical barriers are considerable but the most serious one among them is the availability of constant internet connection with a mean value of 1.92.

**Table 1: technical difficulties.**

Question	1	2	3	4	Mean	Std.Deviation
H/W and S/W are available in SZU	23.3	10.7	52.7	13.3	2.56	0.99
SZU has constant Internet connection	42.0	30.7	20.7	6.7	1.92	0.94
I use University internet outside the SZU	51.4	27.4	17.1	4.1	1.74	0.87
I uses SZU internet	19.7	30.6	31.3	18.4	2.48	1.009

#### Access to Computers

Table 2 demonstrate that 39.3% of the target groups disagree and 23.3% strongly disagree with the availability of sufficient computer labs in Shaikh Zayed university. Some of them felt that e-Learning is not even accessible in Shaikh Zayed University currently.

**Table 2: Access to Computer**

Question	1	2	3	4	Mean	Std.Deviation
There are sufficient computer labs in SZU	23.3	39.3	24.7	12.7	2.26	0.96
e-learning is fully accessible in SZU	42.7	26.7	20.7	10.0	1.98	1.01
I have a computer in my own office	17.8	22.6	33.6	26.0	2.67	1.05
There are not sufficient computers in SZU	20.0	23.3	41.3	15.3	2.52	0.98

### English competency

Obviously confirmed by other researchers that English proficiency is one of the considerable issue faced all the respondents of the survey. As computer usage is directly linked with English, about 46.0% of the survey respondents felt that they have problem in computer usage due to low proficiency in English shown in the below table 3.

**Table 3: English Competencies**

Question	1	2	3	4	Mean	Std.Deviation
I have difficulty in reading English materials online.	22.0	16.0	46.0	16.0	2.56	1.00
I have little difficulty in reading English materials online	24.7	28.0	32.0	15.3	2.38	1.02
I have no problem with teaching material online.	23.3	34.9	19.2	22.6	2.41	1.08
I do not know English	26.7	16.7	31.3	25.3	2.55	1.13

### Awareness

This is quite encouraging that most of the respondents were strongly agree about learning and teaching with new methods with a mean value of 3.12 of the specified threshold value. But the level of awareness for e-learning is low with 47.7% out of them shown in the following table.

**Table 4: Awareness**

Question	1	2	3	4	Mean	Std.Deviation
As my opinion, nowadays everyone knows about e-learning	20.7	47.3	27.3	4.7	2.16	0.80
Majority of my friends use e-learning	18.7	28.7	34.7	18.0	2.52	0.99
My whole family knows about the benefits of e-learning	8.8	19.6	38.5	33.1	2.95	0.93
I like learning with new methods although the old system gives good results.	12.0	10.0	32.0	46.0	3.12	1.01

### Computer Literacy

Understanding computer usage is necessary for implementing e-learning system, users of the system have to be equipped with the relevant skills of computer usage and have the ability to upload and download the necessary materials. As a whole about 30% of the respondents strongly agree that they do not know how to use computer in different work areas but on the other side almost 34.2% know how to search in internet presents in the following table 5.

**Table 5: Computer Literacy**

Question	1	2	3	4	Mean	Std.Deviation
I know how to use computer in different work areas	8.0	47.3	14.7	30.0	2.66	0.99
I do not have the ability to use computer in different work areas.	13.3	7.3	39.3	40.0	3.06	1.00
I know the key techniques of e-learning usage.	7.3	36.7	29.3	26.7	2.75	0.93
I know how to search in internet.	34.2	24.0	16.4	25.3	2.32	1.19

### Power Supply

Table 6 shows that the most considerable issue for successfully implementing e-learning system in Shaikh Zayed University is electricity with a total mean value of 2.27 which is clearly low of the defined threshold value.

**Table 6: Electricity Issues**

Question	1	2	3	4	Mean	Std.Deviation
SZU has 24hrs electricity	42.3	26.8	17.4	13.4	2.02	1.06
SZU has electricity just for	19.6	16.2	47.3	16.9	2.61	0.98

workhours.						
SZU has electricity for few hours.	33.1	25.0	22.3	19.6	2.28	1.12
SZU does not have electricity.	30.4	34.5	20.9	14.2	2.18	1.02

### Cultural Barriers

In order for virtual teaching and learning to succeed, a high competence and openness towards new learning process is required at universities. The results of the following table 7 depicts that cultural barriers are not still well established in universities for successfully integrating e-learning system into the traditional teaching and learning system but 42.0% of the respondents are confident that the cultural conditions are favorable nowadays in universities for successfully adoption of e-learning system.

**Table 7: Cultural Barriers**

Question	1	2	3	4	Mean	Std.Deviation
All cultural conditions for e-learning in SZU are well established.	28.8	33.6	30.8	6.8	2.15	0.92
Cultural condition at SZU have no impact on e-learning.	21.3	35.3	32.0	11.3	2.33	0.93
Cultural conditions are favorable for e-learning at SZU	25.3	27.3	42.0	5.3	2.27	0.90
Cultural conditions for e-learning at SZU are not fully established.	8.0	37.3	39.3	15.3	2.62	0.84

### University Leadership Engagement

Based on the collected data and their analysis shows that 34.0% of the survey respondents were disagree from the support of top leadership to support and motivate them for implementing and integrating e-learning system in the traditional teaching and learning system.

**Table 9: University Leadership Engagement**

Question	1	2	3	4	Mean	Std.Deviation
SZU leadership supports to implement e-learning system in SZU.	22.0	34.0	26.0	18.0	2.40	1.02
SZU leadership does not support for the e-learning system implementation.	18.7	30.7	40.0	10.7	2.42	0.91
The implementation of e-learning has nothing to do with administrative staff.	24.7	32.0	32.0	11.3	2.30	0.96

## V. DISCUSSION

Many developing countries are still faced with many e-learning challenges especially Afghanistan. The research found out that academic staff, administrative staff and students faced many challenges with the implementation of e-learning system. The survey also showed that the target groups had little or even no experience with online learning and teaching such as self-confidence, slow internet connection and poor ICT infrastructure. Few people out of them have access to computers, adequate internet and electricity but still they do not know how to use them as required by the system.

Obviously, the concept of e-learning is attractive as a new method of teaching and learning in Higher educational institutions, with all the mentioned capabilities there is no strong efforts taken by the involved parties for the successful implementation of the process.

According to the obtained results challenges such as technical difficulties, lack of foreign language skills, lack of wariness, computer literacy, cultural barriers and full time electricity are the main challenges at Shaikh Zayed University.

## VI. CONCLUSION

E-Learning will continuously change the approach of teaching and learning in institutions of higher education nationwide. The main objective of e-learning is to improve the flexibility of obtaining knowledge besides the traditional lecture concept. Luskin says that the “e” should be interpreted to mean exciting, energetic, enthusiastic, emotional, extended, excellent, and educational in addition to “electronic” that is a traditional national interpretation.

However, implementing e-learning doesn't mean to replace or disregard lecture room or lecturers but it serves to strengthen the teaching and learning process by utilizing technology. This also means that e-learning will not only change the traditional learning system to the online version but also add values to the learning experience as well as supporting new approaches in teaching and learning in institutions of higher education.

Learning and teaching in an electronic environment is still a great challenge in Afghanistan because of several issues and challenges. The main purpose of this research paper was to identify major challenges and issues of using e-learning in a public university in Afghanistan.

Some of these challenges and issues included problems with access to computers, technical difficulties, constant Internet connection, full time power supply, cultural barriers, and low literacy, etc. Hence, all of the indicated challenges, based on the research and the literature review, are playing a key role in the successful implementation of e-learning in public universities in Afghanistan. During the analysis, we found some critical challenges and issues which seriously hinder the adoption and implementation of e-learning in higher educational institutions shown in the above tables.

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