

An Analysis of Factors affecting Learners' attitudes towards the Integration of E-learning into the Higher Education System in Libya: Case Study; Misurata University

Khalid Ramadan¹, Jamal Elatresh², Alzain Alzain³, Umit Tokeser⁴

¹Department of Computer Science, Institute of Materials and Engineering, Kastamonu University/Turkey

²Department of Computer Science, Institute of Materials and Engineering, Kastamonu University/Turkey

³Department of Computer Science, Faculty of Education, Misurata University/Libya

⁴Department of Mathematics, Faculty of Science and letters, Kastamonu University/Turkey

Correspondence Author: Khalid Ramadan, Department of Computer Science, Institute of Materials and Engineering, Kastamonu University/Turkey

E-mail: kramadan@ogr.kastamonu.edu.tr

Received date: 15 August 2019, **Accepted date:** 30 September 2019, **Online date:** 28 October 2019

Copyright: © 2019 Khalid Ramadan *et al.*, This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Abstract

Investigating the learners' attitudes towards e-learning is significant because it is a widespread technique and it enriches the understanding of the challenges of integrating such systems into the education process. Although the learners' attitudes toward e-learning in many developed countries have seen a significant amount of research, unfortunately in Libya this work is still in its infancy. Therefore, the purpose of this study is to investigate the attitude of learners in the Libyan Higher Education System (LHES) toward e-learning. A questionnaire methodology has been harnessed to collect data from 407 students across different colleges at Misurata University (MU), in Libya. To investigate the research hypothesizes, the collected data were analyzed using Statistical Package for Social sciences (SPSS). The results reveal that the learners at MU have a positive attitude towards e-learning. It also indicated that the attitude of learners is varied based on their academic discipline, their experience with using Information and Communication Technology (ICT) tools, and English proficiency. The results of this research might be leading to provide clear insights that could be contributing to the effective implementation of E-learning in LHES.

Keywords: Misurata University, e-learning success, learners' attitude, student' satisfaction, information and communication technology

INTRODUCTION

The vast and rapid developments of ICT technology have increased societies all over the globe dependence on ICT resources in facilitating life aspects, especially those of educational interest (Farahat, 2012; Goodwin & Al-hunaiyyan, 2008; Rhema & Miliszewska, 2010; Zabadi & Al-Alawi, 2016). In this essence, one of the recent trend and significant developments in the harness of ICT in education environment has been the amalgamation of e-learning technology as a tool to improve and support the processes of teaching and learning (Tarhini, Elyas, Akour, & Al-Salti, 2016; Xhaferi, Bahiti, & Farizi, 2018; Zabadi & Al-Alawi, 2016). However, despite this trend, Libyan Higher Education Institutes (LHEIs) are still struggling with conventional face-to-face of teaching and learning method (Alzain, Clark, & Ireson, 2014; Othman, Pislaru, Kenan, & Impes, 2013a; Ramadan, Elatresh, Alzain, & Tokeser, 2019; Rhema & Miliszewska, 2010). LHEIs have lagged behind those in the industrialized world, chiefly due to numerous socio-economic challenges and drawbacks like obsolete ICT infrastructure and the end-user acceptance of e-learning technology, including the perceptions and engagement (Almansuri & Elmansuri, 2015; Kenan & Pislaru, 2012; Othman, Pislaru, Kenan, & Impes, 2013b; Rhema & Miliszewska, 2010; Tamtam, Gallagher, Olabi, & Naher, 2011).

Currently, in Libyan society, the education system is viewed as a pivotal sector for re-developing and flourishing the country. In light of this, MU, as well as some other LHEIs, has recognized the significance of harnessing e-learning as a new paradigm to achieve an enhancement in learning and teaching outcomes. As e-learning system is a student-centred approach; in which learners are the key stakeholders of all education process, various studies indicated that the effective application of teaching and learning technology depends chiefly upon the trainees' satisfaction and perceptions (Liaw, Huang & Chen, 2007; Selim, 2007; Xaymoungkhoun, Bhuasiri, Rho, Zo, & Kim, 2012).

With this concept, the objective of the present study is to examine the students' perceptions and attitudes toward e-learning and also the underlying factors that might influence these perceptions and attitudes at MU as one of HEIs in Libya.

The findings of this research may pave the way to develop a paradigm for e-learning implementation and may contribute to the field of e-learning development in Libya by exploring the main challenges that influence learners' acceptance of e-learning.

Research Objectives and Questions

The overall objective of the present research is to explore if there are significant variances of demographic profiles of MU learners on perception and attitudes towards the amalgamation of e-learning.

Research questions that guided the study;

1. What are the overall attitudes and perceptions of learners towards e-learning?
2. Is there any association between learners' attitude towards e-learning and their demographic characteristics including age, gender, ICT experience and skills, English language proficiency and academic area?

2. LITERATURE REVIEW

Over the past decades, e-learning has been widely accepted in the educational setting and has been regarded as an integral part of a successful educational process in many parts of the world. Nevertheless, it remains at an early stage of development, especially in developing nations (Al-Adwan, Al-Adwan & Smedley, 2013; Bhuasiri, Xaymoungkhoun, Zo, Rho, & Ciganek, 2012; Rhema & Miliszewska, 2010). Regarding the HEIs context in developing countries, they confront unique challenges compared to industrialized states (Bhuasiri *et al.*, 2012; Kasse & Balunywa, 2013). Those challenges including : the lack the necessary ICT infrastructure and resources (Al-Azawei, Parslow, & Lundqvist, 2016; Idris & Osman, 2017; Kisanga & Ireson, 2015; Mwakyusa & Mwalyagile, 2016); and the conventional methods dominant in teaching and learning practice (Andersson & Grönlund, 2009); and, the absence the capability to launch innovative teaching and learning initiatives on their own (Andersson & Grönlund, 2009). More significantly, understanding learners' awareness, acceptance and readiness of e-learning adoption (Al-Gahtani, 2016; Farahat, 2012; Khaferi, Bahiti & Farizi, 2018; Zabadi & Al-Alawi, 2016). According to Pilli, "many universities that applied E-learning services faced many difficulties in terms of adopting successful scenarios including the acceptance and effectiveness of delivering courses" (Pilli, Fanaeian & Al-Momani, 2014, p.169).

In this connection, Saade, reported that "in general, like any information systems, user acceptance and usage are important primary measures of system success" (Saade, Nebebe & Tan, 2007, p.176).

Strong support can be found for this argument by Al-Adwan who reported that the amalgamation of ICT in the learning practice must be preceded by the learner acceptance; otherwise, this process would be ostracized and eventually would fail (Al-Adwan *et al.*, 2013).

There are some significant aspects for the implementation of e-learning efficiently, however, a comprehensive grasp of the end-user acceptance is the most considerable phase toward developing and deploying a successful e-learning initiative (Žuvić-Butorac, M., Rončević, N., Nemčanin, D., & Nebić & Žuvić-Butorac, 2011). In light of this, it is a fundamental issue to know how learners perceive and take part in an e-learning setting along with how to establish an efficient e-learning paradigm to enrich the learning practice. (Koohang & Durante, 2003). Moreover, examining students' intentions and exploring the factors that might influence on learners' beliefs about e-learning could contribute to evolving modern techniques for increasing the usability and quality of the ICT resources, and this may also appealing learners who keen with e-learning systems (Park, 2009; Rahamat, Shah, & Din, 2012). Therefore, it is a core issue to explore aspects that clarify students' acceptance, intention and attitude towards utilizing e-learning technology (Al-Adwan *et al.*, 2013). In this essence, addressing those challenges requires more exploration of the factors influencing successful deployment of e-learning including learners' awareness and attitudes as an essential determinant or prerequisite for any successful initiatives (Ahmed, 2013; Pilli *et al.*, 2014; Zabadi & Al-Alawi, 2016).

According to Cowen, adopting new technology that is not accepted and utilized by user effectively, such as online learning, is a waste of resources including time, money and effort (Cowen, 2009). Similarly, Pilli, highlighted that "As technology becomes more integral to the function of educational organizations as a whole, the ability of students to integrate new technology into their learning process becomes an ever-larger determinant of success" (Pilli *et al.*, 2014, p.169).

As many researchers think that the successful amalgamation of ICT in education is associated with the essential factors regarding the acceptance and effectiveness of delivering instructional materials and teaching activities as well as end-user satisfaction (Eke Helen Nneka, 2011; Farahat, 2012; Pilli *et al.*, 2014; Zabadi & Al-Alawi, 2016). Thus, positive attitude towards ICT adoption is extensively perceived to be as a pivotal determinant for the effective deployment of e-learning (Sife, Lwoga, Sanga, 2007; Woodrow, 1990) and also more understanding to and recognition of the user's attitudes toward e-learning is a significant step for the production of appropriate e-learning environments for efficient teaching and learning practices (Kenan, Pislaru, & Elzawi, 2012). There is a similar opinion evoked by some researchers (Chen, 2010; Park, 2009; Zhang, Zhao, & ..., 2004) affirmed that the degree of learners' satisfaction and attitudes have a significant and an essential direct influence on adopting e-learning; yet they recently decided to embrace or ignore e-learning technology in the teaching process.

In this essence, it is essential to investigate how learners perceive and react to e-learning along with how to harness this technology effectively to boost their learning practice (Alobiedat & Saraierh, 2010; Koohang & Durante, 2003) where learners' positive attitude towards e-learning may provide useful insight about integrating technology into teaching and learning process successfully.

2.1 Attitudes, Awareness, and perceptions of Learners in Developing Nations

It is generally argued that the amalgamation of e-learning technology has been highly influenced by numerous perspectives and enablers. Those challenges and aspects are linked to the essential issue regarding the acceptance and effectiveness of delivering instructional materials and teaching activities as well as end-user satisfaction chiefly the educators and the trainees (Kasse and Balunywa, 2013; Pilli *et al.*, 2014). In the same token, Al- Adwan stated that stakeholders' commitment and the end-user acceptance to e-learning technology as well as their satisfaction are the most fundamental phase for producing a productive learning environment (Al-Adwan *et al.*, 2013). Additionally, strong support can be found for this argument by Rhema & Miliszewska who reported that "Student attitudes and beliefs towards e-learning, as well as their satisfaction with technology and past e-learning experiences are regarded as success determinants of future e-learning" (Rhema & Miliszewska, 2014, p.169).

Recently, the e-learning system is increasingly being used in HEIs as a modern technology model that helps meet student-centred learning paradigm. However, many HEIs worldwide use the e-learning system but they still need to understand at the end the user acceptance process to this technology (Pilli *et al.*, 2014).

According to (Bhuasiri *et al.*, 2012) who maintained that critical success factors for harnessing e-learning in developing nations were associated with some factors including raising stakeholders' awareness for technology adoption, enhancing their perceptions and attitudes toward e-learning. In this context, investigating students' perceptions and attitudes toward e-learning and also the impact of demographic characteristics on their attitudes are considered to be a meaningful stage before thoroughly embarking online learning practices in educational activities (Chen, 2010; Park, 2009; Xhaferi, G., Bahiti, R., & Farizi, 2018).

Regarding developing countries, research undertaken in the domain of learners' perceptions attitudes seem to show that students had positive attitudes towards the harness of ICT in teaching and learning environment. In line with this, (El Gamal & El Aziz, 2011) declared that learners possess numerous attitudes towards e-learning; however, commonly are positive perceptions and attitudes. This was stressed by Nassoura (2012) and Zabadi and Al-Alawi (2016) who stated that the majority of learners own positive attitudes toward the e-learning because it raised students' motivations positively (Nassoura, 2012; Zabadi and Al-Alawi, 2016). Additionally, as pointed out by (Othman, Pislaru *et al.* 2013a) who stated that learners possess positive attitude toward the usage online learning setting where majority of them were contented with this practice. Additionally, Xhfari *et al.* (2018) stated that learners' attitudes chiefly depend on the level access to ICT facilities as well as attributed by their prior experience and skills with ICT and e-learning. However, the demographic characteristics and ICT experience and skills are recognized as a significant determinant to the learners' perception; therefore, understanding users' characteristics and e-learning systems usage is necessary to embark on effective e-learning initiative (Zabadi & Al-Alawi, 2016). Thus, most researchers focused on investigating learners' demographical variables regarding their gender, and technology experience and skill (Zabadi & Al-Alawi, 2016).

Reviewing the literature, prior related studies show that there is a rareness of researches about student's individual personal differences such as discipline and English proficiency, especially in developing nations. On this basis, this study wishes to fallout this void in similar literature. Thus, it was undertaken to examine the impact of demographic characteristics of learners on the attitudes toward e-learning including academic significant and English proficiency.

3. METHODOLOGY

The study was conducted to empirically investigate the influences and dissimilarities of students' demographic factors on their attitude towards e-learning amalgamation at MU by surveying 407 learners from various faculties at MU. Accordingly, participants were invited to answer an online questionnaire. To achieve the study aims, the questionnaire was designed on the basis of a five-point Likert scale. The collected data was analyzed using Statistical Package for Social Sciences (SPSS) to examine the relationships between their attitudes and their demographic characteristics. Also, descriptive statistics were used to summarize and describe the data collected from the participants.

3.1 Data collection stage

An online survey questionnaire was launched and distributed to the students to assess their attitudes towards e-learning and to find out any demographic factors that are significant towards the learners' use of e-learning. The sample size under study involved students from different program studies from all the major faculties of MU. The format of the questionnaire, used in this study enabled participants to select one of the following alternatives: "1" 'strongly disagree', "2" 'disagree', "3" 'neutral', "4" 'agree', "5" 'strongly agree', to indicate to what extent they are satisfied with each statement related to their attitude towards e-learning.

The first section of results discusses learners' demographic characteristics. The second section examines the perception of students towards e-learning. Finally, an analysis of the effect of demographic information on the perception of students towards e-learning and the relationships between the appointed variables are reported.

3.2 Statistical analysis

In order to investigate the research hypothesis, the responses of 407 participants were collected using an online questionnaire, and then analyzed using the Statistical Package for Social sciences (SPSS).

To check the independence between the gender of students and the attitude towards e-learning Chi-square was applied. And then the Person correlation test was applied to check the association among the different variables such as participants age, ICT use, English proficiency and academic major.

4. RESULT

This study used a survey method to examine the perception of MU learners towards e-learning.

The first section discusses students' demographic characteristics, i.e. gender, age, English proficiency, computer use and academic sector. The second section examined the perception of students towards e-learning. Finally, analysis the effect of demographic profile on the knowledge of students towards e-learning.

A. Demographic Profile of Learners

The total number of participants was 407 students from all the principal faculties of MU. The results revealed that the dominance of males is quite clear about (66.59%). Data on the age, a vast majority (88.21%) of the participating students fell in the age group between 21-25 years. The result also revealed that there were (52.82%) students possess the intermediate level of language proficiency. In terms of academic discipline, the highest percentage of respondents around (59.46%) belong to scientific discipline. Further information on students' computer use, showed that there were (44.47%) students with computer use experience less than 10 years and (51.59%) students with computer use experience ranging from 11 to 20 years whereas (3.94%) more than 20 years of computer use experience. Table 1 shows the demographic characteristics of the participants.

Table 1: Demographic Statistics of participating learners

Demographic Characteristics	Descriptive Statistics	Respondents	Percentage %
Academic sector	Science	242	59.46%
	Arts	165	40.54 %
	Total	407	
Gender	Male	271	66.59%
	Female	136	33.41%
	Total	407	
Age	Less than 20	28	6.87%
	Between 21-25	359	88.21%
	More than 25	20	4.92%
	Total	407	
English Proficiency	Elementary	132	32.43%
	Intermediate	215	52.82%
	Advanced	60	14.75%
	Total	407	
Computer Use	Less than 10	181	44.47%
	Between 11-20	210	51.59%
	More than 20	16	3.94%
	Total	407	

A. Learners' perception

The participants were first asked to respond whether they support the application of e-learning in the subjects that they are studying or not.

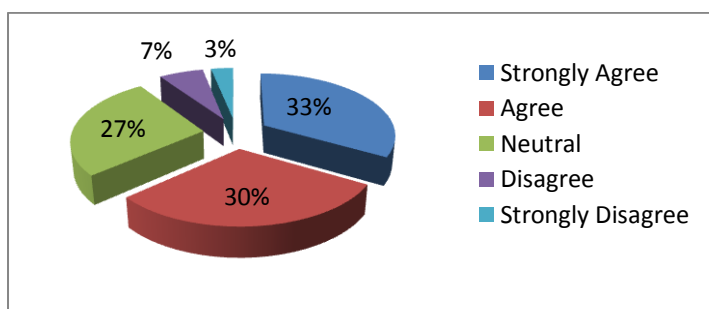


Figure 1: participants' perception of supporting the implementation of e-learning

The Figure 1 shows that (33%) of participants responded with strongly agree, and (30%) responded with "agree" was in favor of implementing e-learning in the educational process, while only (7%) of learners were not interested in it. This result underlines that most of the participants were keen to use e-learning in their courses.

This study is also inquired about the response of students towards using e-learning as a tool will increase the efficiency of their teaching experience through interacting outside of class with both teachers and colleagues online.

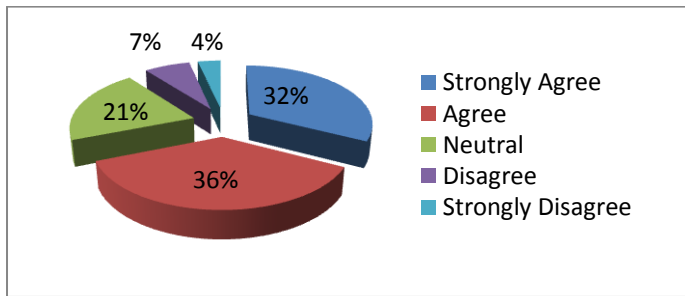


Figure 2: learners' response towards using e-learning as a tool for teaching will increase the efficiency of their teaching experience

This result indicates that most of the learners (68%) believed that using e-learning as a tool for teaching would increase the efficiency of their educational experience. In terms of learners' perceptions regarding the impact of using online resources on their performance, the participants were asked whether they think that the use of e-learning has a positive effect on their performance.

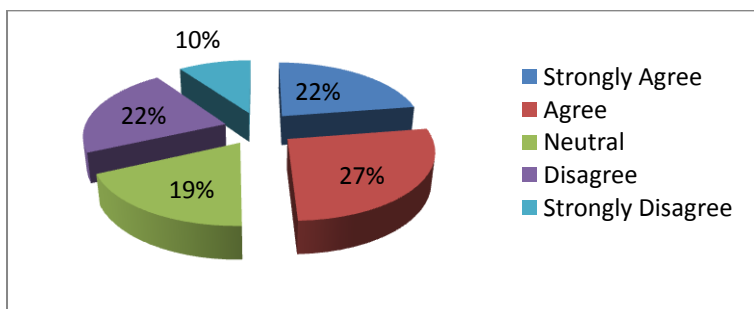


Figure 3: the use of e-learning has a positive effect on the performance of the student

As it is seen, Figure 3 shows that (49%) of participants admit that e-learning has a positive influence on students' performance, whereas only (32%) felt that e-learning has no positive effect on their performance in learning. Concerning student engagement, the learners were asked whether the use of online resources will make them more engaged in the educational process.

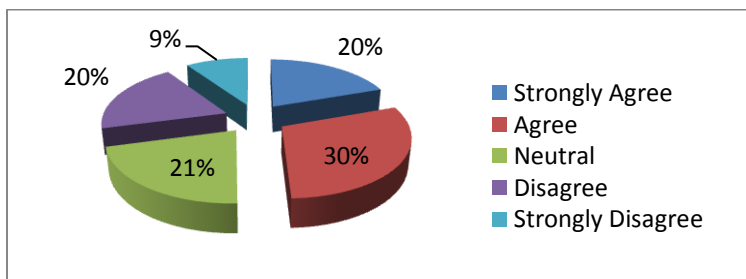


Figure 4: the use of e-learning makes the students more engaged in the education process

Statistics in Figure 4 indicate that half of the participants think that e-learning makes the students more engaged in the education process, while only (29%) of learners disagree with this statement.

Regarding students' beliefs about using online resources for delivering courses, the participants were asked whether the use of e-learning is more flexible and enable students to understand the topic in hand better than the traditional teaching style.

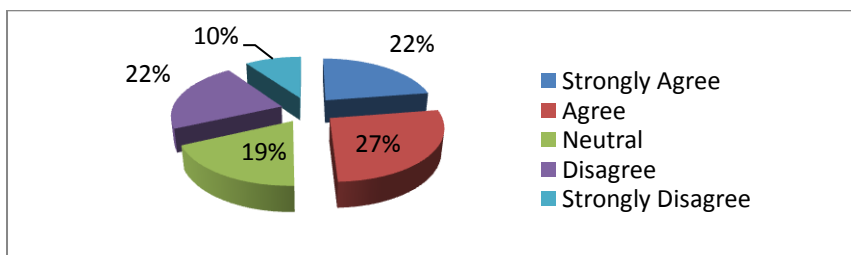


Figure 5: the use of e-learning is more flexible than the traditional way of teaching

As illustrated in Figure 5 (49 %) of learners declared that using e-learning can be more flexible than the traditional way of teaching. Only (32 %) did not believe that e-learning is not more flexible than the traditional way of teaching.

Finally, the participants were asked whether they believe that e-learning could contribute to solving some of the educational problems (such as access to distance learning materials, increases students' access to education, etc.)

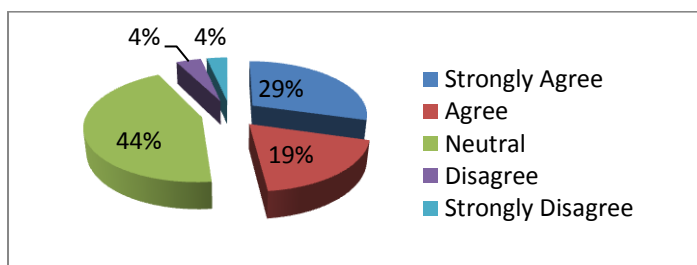


Figure 6: the use of e-learning can contribute to solving some educational problems

The results suggested that of (48%) students believed that e-learning could contribute to solving some educational problems. However, (44%) of students were still undecided and only a small number i.e. (8 %) responded negatively.

C. Assessing the association between IVs and attitude towards e-learning adoption

As the second research question was, "Is there any association between the demographic profile of learners and their attitude towards e-learning?" In this context, the present section analyses whether there is any significant difference in the students' attitudes towards online learning based on their demographic profiles i.e., age, gender, ICT use, the field of study and English language proficiency. Chi-square and Person correlation statistical tests were applied to explore the correlation and independence of variables.

i. Gender and students' attitudes toward e-learning

This section of the study investigates whether there is a significant association between the gender of participants and using an e-learning by exploring the following hypotheses:

H₀: There is no significant association between the gender of participants and their attitudes using e-learning.

H₁: There is a significant association between the gender of participants and using e-learning.

Table 2: Gender and students' attitudes toward e-learning

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.123a	1	.725		
Continuity Correction	.060	1	.807		
Likelihood Ratio	.124	1	.725		
Fisher's Exact Test				.751	.404
Linear-by-Linear Association	.123	1	.726		
N of Valid Cases	407				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 55.65.
b. Computed only for a 2x2 table

As shown in Table (2), the results confirm (H₀), in that there was no significant association between the gender of participants and their attitudes towards using E-learning (P.value= .725).

ii. Age and students' attitudes toward e-learning

To investigate whether there is a significant correlation between the age of participants and using e-learning, the following hypotheses were explored using person correlation test.

H₀: There is no significant correlation between the age of participants and using e-learning

H₁: There is a significant correlation between the age of participants and using e-learning

Table 3: Age and learners' attitudes toward e-learning

Correlations			
		Age	Have You Ever Used E-learning
Age	Pearson Correlation	1	.016
	Sig. (2-tailed)		.750
	N	407	407
Have You Ever Used E-learning	Pearson Correlation	.016	1
	Sig. (2-tailed)	.750	
	N	407	407

As shown in Table (3), the results prove the alternative hypothesis (H0), there was no significant correlation between the age of participants and using e-learning (P.value= .750)

iii. ICT use and learners' attitudes toward e-learning

This section of the study investigated whether there is a significant correlation between using e-learning and the years of computer use. The Pearson correlation test was conducted to explore the following hypotheses:

H₀: There is no significant association between using e-learning and years of computer use

H₁: There is a significant association between using e-learning and years of computer use

Table 4: Years of computer use and learners' attitudes toward e-learning

Correlations			
		Computer Use	Have You Ever Used E-learning
ComputerUse	Pearson Correlation	1	.328**
	Sig. (2-tailed)		.000
	N	407	407
Have You Ever Used E-learning	Pearson Correlation	.328**	1
	Sig. (2-tailed)	.000	
	N	407	407

** . Correlation is significant at the 0.01 level (2-tailed).

As shown in Table (4), the results affirm the hypothesis (H1), there was a significant correlation between the years of computer use and using e-learning (r=0.328 and p.value= 000)

iii. Academic dominant and students' attitudes toward e-learning

This section of the study investigates whether there is a significant association between the academic discipline of the participant and using e-learning.

Table 5: Academic major and learners' attitudes toward e-learning

Correlations			
		Department	Have You Ever Used E-learning
Department	Pearson Correlation	1	.510**
	Sig. (2-tailed)		.000
	N	407	407
Have You Ever Used E-learning	Pearson Correlation	.510**	1
	Sig. (2-tailed)	.000	
	N	407	407

** . Correlation is significant at the 0.01 level (2-tailed).

As shown in Table (5), the results revealed that there was a significant association between the disciplines of participants and using E-learning (r=0.510 and p.value= 000)

vi. English language proficiency and students' attitudes toward e-learning

The study needed to get more insights into the LHEIs, if there was a statistically significant correlation in attitudes towards e-learning between learners' perception and their level of English language.

Table 6: English language proficiency and students' attitudes toward e-learning

Correlations			
		Proficiency	Have You Ever Used E-learning
Proficiency	Pearson Correlation	1	.459**
	Sig. (2-tailed)		.000
	N	407	407
Have You Ever Used E-learning	Pearson Correlation	.459**	1
	Sig. (2-tailed)	.000	
	N	407	407

** . Correlation is significant at the 0.01 level (2-tailed).

The results, as shown in the above table, reveals that there was a significant correlation between English language proficiency and using E-learning (r=0.459 and p.value= 000).

5. DISCUSSION

As formidable support in the literature is available that has affirmed that the successful adoption of e-learning system is heavily relying on the right and favourable attitudes of the learners (Farahat, 2012; Ghenghesh, Croxford, Nagaty, & Abdelmageed, 2018; Kar, Saha, & Chandra Mondal, 2014; Peytcheva-Forsyth, Yovkova, & Aleksieva, 2018; Sebnem, 2015). Moreover, understanding students' demographic profiles is necessary to introduce an effective e-learning initiative (Xhaferi, G., Bahiti, R., & Farizi, 2018; Zabadi & Al-Alawi, 2016; Žuvić-Butorac, *et al.*, 2011). Additionally, Cheng (2006) maintained that individual profile information such as gender, ICT skills are not sufficient when studying the students' perception concerning e-learning application. On this basis, the present study was undertaken to examine the impact of demographic characteristics on the learners' perception and attitudes towards using e-learning in the process of learning. These characteristics included: the academic discipline and English proficiency.

Generally, the findings revealed that the students in MU had positive attitudes towards e-learning where demographic profile played a statistically significant contribution to their attitudes. The results of this study were consistent with a number of similar previous work (Abod-her, 2013; Bendania, 2011; Concannon, Flynn, & Campbell, 2005; Elzawi, A., Wade, S., Kenan, T., & Pislaru, 2013; Ghenghesh *et al.*, 2018; Kar *et al.*, 2014; S. S. Liaw *et al.*, 2007; Mahmoud, S. R., El Magrabi, N. M., & Mohamed, 2015; Ransom, Graham, & Mott, 2007; Reading, 2008; Zabadi & Al-Alawi, 2016).

An interesting outcome is that the academic discipline appears to perform a pivotal factor in affecting the level of perception as there was a significant difference regarding learner's attitude towards e-learning based on academic major. It was found that the science department was more likely to adopt e-learning in their teaching than their counterparties, i.e. art discipline. This outcome contrast with (Jayaraj & Nirmal, 2018; Kar *et al.*, 2014; Phillips, 2013) who found that students' perceptions did not vary significantly with their major of study.

Another interesting finding is regarding English proficiency. The results revealed that there was a significant difference between learners' elementary level and students' advanced level. This particular finding could provide new insights into the role of English level on attitudes toward e-learning, particularly in countries that the English language is the second language.

Data on age further indicated that students' age remained insignificant. Result contrast with (Kar *et al.*, 2014; Peytcheva-Forsyth *et al.*, 2018; Zabadi & Al-Alawi, 2016). As most of the prior studies on age difference in attitudes towards use of e-learning materials have shown that significant differences among the learners were based on age. This conflict may be ascribed to the fact that those studies were conducted with various samples of participants with different cultures in a different environment and context.

Results further indicated that learners' skills and experience with ICT might significantly impact on attitude towards online learning where it represented a noteworthy role in constructing positive attitudes towards e-learning. This statement also supports outcomes from previous researches (Liaw & Huang, 2011; Peytcheva-Forsyth *et al.*, 2018; Zabadi & Al-Alawi, 2016).

Finally, the study examined the influence of gender where disclosed that there was no significant difference between the participants' attitudes involved in the present study. This result is consistent with previous work (Cheng, 2006; Ghenghesh *et al.*, 2018; Kar *et al.*, 2014; Sebnem, 2015; Suri & Sharma, 2013; Žuvić-Butorac, *et al.*, 2011). These studies disclosed that the gap between male and female in the variation in perceptions towards e-learning was declined.

6. CONCLUSION

In conclusion, the result of this study reveals that students at MU are willing to adopt e-learning. The findings also reaffirm that the demographic characteristics of students have highly contributed toward the formation of the learners' perspectives in the educational setting, in particular, ICT skills and experience, academic department, and English proficiency. Further, the results suggest that well understanding those factors are contributory for developing an interactive platform that may boost students' knowledge and would make the learning experience more effective and appealing.

REFERENCE

- Abod-her. (2013). Impacts of globalisation and awareness of higher education policy in adoption and use of ICT in Libyan universities (Doctoral dissertation, University of Huddersfield).
- Ahmed, T. T. (2013). Toward Successful E-Learning Implementation in Developing Countries: A Proposed Model for Predicting and Enhancing Higher Education Instructors' Participation. *International Journal of Academic Research in Business and Social Sciences*, 3(1), 2222–6990.
- Al-Adwan, A., Al-Adwan, A., & Smedley, J. (2013). Exploring students acceptance of e-learning using Technology Acceptance Model in Jordanian universities, 9(2013), 4–18. <https://doi.org/10.1504/IJHTM.2015.074538>
- Al-Azawei, A., Parslow, P., & Lundqvist, K. (2016). Barriers and opportunities of e-learning implementation in Iraq: A case of public universities. *International Review of Research in Open and Distance Learning*, 17(5), 126–146. <https://doi.org/10.19173/irrodl.v17i5.2501>
- Al-Gahtani, S. S. (2016). Empirical investigation of e-learning acceptance and assimilation: A structural equation model. *Applied Computing and Informatics*, 12(1), 27–50. <https://doi.org/10.1016/j.aci.2014.09.001>
- Almansuri, A. A., & Elmansuri, R. A. (2015). Utilizing E-learning systems in the Libyan universities: Case study; Tripoli University, faculty of engineering. *Proceedings of the International Conference on E-Learning 2015, E-LEARNING 2015 - Part of the Multi Conference on Computer Science and Information Systems 2015*, 188–192.

- Alobiedat, A., & Saraierh, R. (2010). The student's attitude toward use platform as learning resources at university of Granada. *Review of European Studies*, 2(2), 236–244. <https://doi.org/10.5539/res.v2n2p236>
- Alzain, A. M., Clark, S., & Ireson, G. (2014). Libyan Higher Education system, challenges and achievements. In ICEED 2014 - 2014 IEEE 6th Conference on Engineering Education (pp. 67–72). <https://doi.org/10.1109/ICEED.2014.7194690>
- Andersson, A., & Grönlund, Å. (2009). A Conceptual Framework for E-Learning in Developing Countries: A Critical Review of Research Challenges. *The Electronic Journal of Information Systems in Developing Countries*, 38(1), 1–16. <https://doi.org/10.1002/j.1681-4835.2009.tb00271.x>
- Bendania, A. (2011). INSTRUCTORS' AND LEARNERS' ATTITUDES TOWARD TEACHING AND LEARNING ONLINE: KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS (KFUPM) (SAUDI ARABIA) CASE STUDY - ProQuest. *International Journal of Arts and Sciences*, 4(8), 223–241.
- Bhuasiri, W., Xaymoungkhoun, O., Zo, H., Rho, J. J., & Ciganek, A. P. (2012). Critical success factors for e-learning in developing countries: A comparative analysis between ICT experts and faculty. *Computers and Education*, 58(2), 843–855. <https://doi.org/10.1016/j.compedu.2011.10.010>
- Chen, H. J. (2010). Linking employees' e-learning system use to their overall job outcomes: An empirical study based on the IS success model. *Computers & Education*, 55(4), 1628–1639.
- Cheng, K. (2006). A Research Study on Students' Level of Acceptance in Applying E-learning for Business Course. A Case Study on a Technical College in Taiwan", *Journal of American Academy of Business*, 8(2), 265–272.
- Concannon, F., Flynn, A., & Campbell, M. (2005). What campus-based students think about the quality and benefits of e-learning. *British Journal of Educational Technology*, 36(3), 501–512. <https://doi.org/10.1111/j.1467-8535.2005.00482.x>
- Cowen, J. B. (2009). the Influence of Perceived Usefulness, Perceived Ease of Use, and Subjective Norm on the Use of Comuted Radiography Systems.
- Eke Helen Nneka. (2011). Modeling LIS student's intention to adopt e-learning: a case from University of Nigeria, Nsukka. *Library Philosophy and Practice*, (September).
- El Gamal, S., & El Aziz, R. A. (2011). An Investigation of the Effect of Higher Education Student's Perception on their Readiness for E-Learning Adoption: The Case of Egypt. *International Conference on E-Learning, e-Business, Enterprise Information Systems, and e-Government*.
- Elzawi, A., Wade, S., Kenan, T., & Pislaru, C. (2013). Exploratory study of the attitudes of academic staff in Libyan Universities towards the role of the Internet. 8th International Conference for Internet Technology and Secured Transactions (ICITST-2013) (Pp. 490-493). IEEE, 490–493.
- Farahat, T. (2012). Applying the Technology Acceptance Model to Online Learning in the Egyptian Universities. *Procedia - Social and Behavioral Sciences*, 64, 95–104. <https://doi.org/10.1016/j.sbspro.2012.11.012>
- Ghenghesh, P., Croxford, L., Nagaty, K., & Abdelmageed, S. (2018). Students and Teachers Attitudes and Satisfaction Toward E-Learning: A Case Study in Egypt *The Journal of Middle East and North Africa Sciences* 2018 ; 4 (01), 4(01), 15–31.
- Goodwin, R., & Al-hunaiyyan, A. (2008). Students' Attitudes Toward E-learning in Kuwait's Higher Education Institutions Students' Attitudes Toward E-learning in Kuwait's Higher Education Institutions, (January), 841–848.
- Idris, F. elmoula A. alla, & Osman, Y. (2017). Implementation of E-learning in The University of Gezira Barriers and Opportunities. *Educational Science and Research*, 1(1), 24–35. <https://doi.org/10.22496/esr2016090470>
- Jamlan, M. (2004). Faculty opinions towards introducing e-learning at the University of Bahrain. *International Review of Research in Open and Distance Learning*, 5(2).
- Jayaraj, K., & Nirmal, V. (2018). The usage of internet and e-learning practice among the college students with special reference to Hindusthan College of Arts and Science, Coimbatore, 5(2), 72–88.
- Kar, D., Saha, B., & Chandra Mondal, B. (2014). Attitude of University Students towards E-learning in West Bengal. *American Journal of Educational Research*, 2(8), 669–673. <https://doi.org/10.12691/education-2-8-16>
- Kashada, A., Li, H., & Koshadah, O. (2018). Analysis Approach to Identify Factors Influence Digital Learning Technology Adoption and Utilization in Developing Countries. *International Journal of Emerging Technologies in Learning*, 13(2), 48–59. <https://doi.org/10.3991/ijet.v13i02.7399>
- Kasse, J. P., & Balunywa, W. (2013). An assessment of e-learning utilization by a section of Ugandan universities: challenges, success factors and way forward. *International Conference on ICT for Africa 2013*, 15.
- Kenan, T., & Pislaru, C. (2012). Challenges related to the implementation of e-learning in higher education institutions in Libya. In *Proceedings of The Queen's Diamond Jubilee Computing and Engineering Annual Researchers' Conference 2012: CEARC'12*. (pp. 116–122).
- Kenan, T., Pislaru, C., & Elzawi, A. (2012). Analysing the effectiveness of e-learning based on national and international cultures and approaches to pedagogy. In *17th UKAIS Conference on Information Systems*, Oxford University.
- Kisanga, D., & Ireson, G. (2015). Barriers and strategies on adoption of e-learning in Tanzanian higher learning institutions: Lessons for adopters. *International Journal of Education and Development Using Information and Communication Technology*, 11(2), 126–137.
- Koohang, A., & Durante, A. (2003). Learners' Perceptions toward the Web-based Distance Learning Activities/Assignments Portion of an Undergraduate Hybrid Instructional Model. *Journal of Information Technology Education: Research*, 2. <https://doi.org/10.28945/316>
- Liaw, S., & Huang, H.-mei. (2011). A study of investigating learners attitudes toward e-learning. *The Fifth International Conference on Distance Learning and Education*, 12(September), 28–32.
- Liaw, S. S., Huang, H. M., & Chen, G. D. (2007). Surveying instructor and learner attitudes toward e-learning. *Computers and Education*, 49(4), 1066–1080. <https://doi.org/10.1016/j.compedu.2006.01.001>

- Mahmoud, S. R., El Magrabi, N. M., & Mohamed, F. R. (2015). Faculty of Nursing Teaching Staff members and Students Attitudes toward e-learning. *IOSR Journal of Nursing and Health Science*, 4(4), 2320–1940. <https://doi.org/10.9790/1959-04463645>
- Mwakyusa, W. P., & Mwalyagile, N. V. (2016). Impediments of E-Learning Adoption in Higher Learning Institutions of Tanzania: An Empirical Review. *Journal of Education and Practice*, 7(30), 152–160.
- Othman, A., Pislaru, C., Kenan, T., & Impes, A. (2013a). Analysing the Effectiveness of IT Strategy in Libyan Higher Education Institutes. *International Journal of Digital Information and Wireless Communications (IJDIWC)*, 3(3), 114–129.
- Othman, A., Pislaru, C., Kenan, T., & Impes, A. (2013b). Attitudes of Libyan Students Towards Ict ' S Applications and E-Learning in the Uk. *Isbn*, 123–129. <https://doi.org/10.1016/B978-0-323-22158-0.00003-2>
- Park, S. Y. (2009). An Analysis of the Technology Acceptance Model in Understanding University Students' Behavioral Intention to Use e-Learning. *Journal of Educational Technology & Society*, 12(3), 150–162. <https://doi.org/10.2307/jeductechsoci.12.3.150>
- Peytcheva-Forsyth, R., Yovkova, B., & Aleksieva, L. (2018). Factors affecting students' attitudes towards online learning - The case of Sofia University. In *AIP Conference Proceedings (Vol. 2048)*. <https://doi.org/10.1063/1.5082043>
- Phillips, M. S. (2013). Instructor and Student Perceptions of Online Courses: Implications of Positioning Theory.
- Pilli, F. & A.-M. (2014). Investigating the Students ' Attitude Toward the use of E-Learning in Girne American University. *International Journal of Business and Social Science*, 5(5), 169–175.
- Rahamat, R., Shah, P. M., & Din, R. (2012). Measuring Learners ' Perceived Satisfaction Towards e-Learning Material and Environment. *WSEAS Transactions on Advances in Engineering Education*, 9(3), 72–83.
- Ramadan, K., Elatresh, J., Alzain, A., & Tokeser, U. (2019). Investigating Instructors ' Attitude towards the Adoption of E - Learning Technology in Libyan Higher Education Institutes: Case Study; Misurata University, 13(5), 43–54. <https://doi.org/10.22587/ajbas.2019.13.5.5>
- Ransom, W., Graham, C., & Mott, J. (2007). Faculty perceptions of technology projects. *Educause Quarterly*.
- Reading, C. (2008). Recognising and measuring engagement in ICT-rich learning environments. *Australian Council for Computers in Education*.
- Rhema, A., & Miliszewska, I. (2010). Towards E-Learning in Higher Education in Libya. *Issues in Informing Science and Information Technology*, 7, 423–437. <https://doi.org/10.28945/1218>
- Saade, R., Nebebe, F. & Tan, W. (2007). Viability of the "Technology Acceptance Model" in Multimedia Learning Environments: A Comparative Study. *Interdisciplinary Journal of E-Skills and Lifelong Learning*, 3, 175–184. <https://doi.org/10.28945/392>
- Sebnem, K. I. (2015). Investigation of students attitudes towards e-learning in terms of different variablesA case study in a technical and vocational high school for girls. *Educational Research and Reviews*, 10(1), 81–91. <https://doi.org/10.5897/ERR2014.1980>
- Selim, H. M. (2007). Critical success factors for e-learning acceptance: Confirmatory factor models. *Computers and Education*, 49(2), 396–413. <https://doi.org/10.1016/j.compedu.2005.09.004>
- Sife, A. T., Lwoga, E. T., Sanga, C., & Sife, A., Lwoga, E., & Sanga, C. (2007). New technologies for teaching and learning : Challenges for higher learning institutions in developing countries. *International Journal of Education and Development Using Information and Communication Technology*, Vol. 3(2), 57–67.
- Suri, G., & Sharma, S. (2013). The Impact of Gender on Attitude Towards Computer Technology and E- Learning: An Exploratory Study of Punjab University, India. *International Journal of Engineering Research*, 2(2319–6890), 22.
- Tamtam, A., Gallagher, F., Olabi, A. G., & Naher, S. (2011). Higher education in Libya, system under stress. In *Procedia - Social and Behavioral Sciences (Vol. 29, pp. 742–751)*. <https://doi.org/10.1016/j.sbspro.2011.11.300>
- Tarhini, A., Elyas, T., Akour, M. A., & Al-Salti, Z. (2016). Technology, Demographic Characteristics and E-Learning Acceptance: A Conceptual Model Based on Extended Technology Acceptance Model. *Higher Education Studies*, 6(3), 72. <https://doi.org/10.5539/hes.v6n3p72>
- Woodrow, J. E. J. (1990). Locus of control and student teacher computer attitudes. *Computers & Education*, 14(5), 421–432. [https://doi.org/10.1016/0360-1315\(90\)90036-7](https://doi.org/10.1016/0360-1315(90)90036-7)
- Xaymoungkhoun, O., Bhuasiri, W., Rho, J. J., Zo, H., & Kim, M. G. (2012). The critical success factors of e-learning in developing countries. *Kasetsart Journal - Social Sciences*, 33(2), 321–332.
- Xhaferi, G., Bahiti, R., & Farizi, A. (2018). The Impacts of Demographic Variables of students on attitudes towards e-learning in higher education, 16(6), 93–99.
- Xhaferi, G., Bahiti, R., & Farizi, A. (2018). Analysis of Students Factors Influencing the Integration of E-Learning in Higher Education. Case Study:University of Tetovo. *European Journal of Formal Sciences and Engineering*, 1(2), 33. <https://doi.org/10.26417/ejfe.v1i2.p33-38>
- Zabadi, A. M., & Al-Alawi, A. H. (2016). University Students' Attitudes towards E-Learning: University of Business & Technology (UBT)-Saudi Arabia-Jeddah: A Case Study. *International Journal of Business and Management*, 11(6), 286. <https://doi.org/10.5539/ijbm.v11n6p286>
- Zhang, D., Zhao, J., & ... L. Z.-. (2004). Can e-learning replace classroom learning?. *Pdfs.Semanticscholar.Org*.
- Žuvić-Butorac, M., Rončević, N., Nemčanin, D., & Nebić, Z., & Žuvić-Butorac, M. (2011). Blended E-Learning in Higher Education: Research on Students' Perspective. *Informing Science Institute*429–409 ,8 ,.