دور توسيع نموذج قبول التكنولوجيا لفهم المؤشرات المؤثرة على نية طلاب جامعة الأقصى المستمرة لاستخدام التعلم على الإنترنت

Role of Extending the Technology Acceptance Model (TAM) to Understand Indicators Influencing (Al-Aqsa University) Students' Continuance Intention To Use Online Learning

Hasan Mahdi
Al-Aqsa University, Palestine
Email: Hr.mahdi@alaqsa.edu.ps

Tahreer Hammad
Al-Aqsa University, Palestine
Email: tahreerhammad@gmail.com

المختصر

استخدمت جامعة الأقصى في فلسطين على نطاق واسع التعلم الإلكتروني لإدارة التعليم الجامعي بعد جائحة بعد كوفيئد 19. ولتشجيع الاعتماد المتزايد للتعلم على الإنترنت بين الطلاب، قامت هذه الدراسة بالتحقيق في العوامل التي أثرت على نية طلاب جامعة الأقصى المتواصلة في استخدام التعلم على الإنترنت من خلال استخدام نموذج قبول التكنولوجيا كأساس نظري. وتم تطوير نموذج يستخدم نمذجة المعادلة البنيوية لطلاب جامعة الأقصى الذين يعتزمون الاستمرار في استخدام التعلم على الإنترنت .وجمعت بيانات تستند إلى الدراسات الاستقصائية في جامعة الأقصى من 265 طالبا .وخلصت هذه الدراسة إلى أن كل البنيات الستة، وعلى وجه التحديد، الفائدة المتصورة (بيتا = 0.171) ، وسهولة الاستخدام المتصورة (بيتا = 0.779) ، وإمكانية الاستعاضة المتصورة (بيتا = 0.168) ، والمصداقية المتصورة (بيتا = 0.688) ، والتوافق (بيتا = 0.192) ، كان لها تأثير إيجابي على نية طلاب جامعة الأقصى المستمرة في استخدام التعلم على الإنترنت.

الكلمات المفتاحية: التعلم على الإنترنت، ونموذج قبول التكنولوجيا، والفائدة المتصورة، وسهولة الاستخدام المتصورة، وعدم الاستعاضة المتصورة، والمصداقية المتصورة، والتوافق، والنية المستمرة، والفعالية الذاتية للحاسوب والإنترنت.

Abstract

After COVID-19, Al-Aqsa university in Palestine has been widely using online learning to manage the university education. To encourage the increased adoption of online learning among students, this study investigated the factors that influenced the existing Al-Aqsa university students' continuance intention to use online learning. The Technology Acceptance Model (TAM) has been used here as a theoretical basis. A

*Corresponding author e-mail: Hr.mahdi@alaqsa.edu.ps

model using structural equation modelling was developed for an Al-Aqsa university students' continuance intention to use online learning. Survey-based data were collected in Al-Aqsa university from 265 students. This study found that all six constructs, namely, perceived usefulness (β= 0.171), perceived ease of use (β= 0.779), perceived irreplaceability (β= 0.168), perceived credibility (β= 0.688), and compatibility (β= 0.192) had a positive influence on Al-Aqsa university students' continuance intention to use online learning.

Key words: online learning, technology acceptance model (TAM), Perceived Usefulness, Perceived Ease of Use, Perceived Irreplaceability, Perceived Credibility, Compatibility, Continuance Intention, Computer and Internet Self-efficacy.

1.0 Introduction

The Coronavirus crisis has cast a shadow over the education sector; as it pushed schools, universities and educational institutions to close their doors, reducing the chances of its spread since the beginning of 2020. The COVID-19 pandemic has forced us to experiment with educational technology, but it is not clear that the classroom is showing the same benefits as being at home where the global trend e-learning has become as the most appropriate alternative to ensure the continuation of the educational process.

Because of COVID19 higher education insinuations are confronted with the Challenges of addressing the differing needs of students using e-learning that allows facilitate learning and improve performance in order to achieve the desired goals. In general, in March 2020, University Council of Al-Aqsa University decided to activate e-learning within the procedures of the state of emergency plan adopted by the university which studied all options available within the university's capabilities and employ them for this purpose and one of it was Moodle system at the university website and in the same time, the student can follow the news through social media ,see: https://portal.alaqsa.edu.ps/Student/E-learning/e-learning.aspx.

2.0 Problem Statement

In March 2020, University Council of Al-Aqsa University decided to activate distance education within the procedures of the state of emergency plan adopted by the university which studied all options available within the university's capabilities and employ them for this purpose and one of it was Moodle program at the university website and in the same time, the student can follow the news through social media ,see: https://portal.alaqsa.edu.ps/Student/E-learning/e-learning.aspx

Many studies have focused on the technical aspect as the most important success elements of e-learning such as: (Hanover Research, 2011) & (Al-Arimi, 2014) which explained various key success factors of e-learning which are using technology to aid and enhance learning, visual and audio app, Focusing on the use of the Internet in e-learning and course design Besides that, the study of (ALhomod & Shafi, 2013), (Raspopovic et al.,2014) & (Zuhairi, 2019) emphasized that the positive attitude of users , student engagement and motivation them in learning relationship between

students' academic achievement and students' satisfaction as key factors of success e-learning.

Therefore, the study seeks to answer the following question:
What are the reality of the factors Influencing Aqsa University students' Continuance Intention to Use online learning through using TAM?

3.0 Hypothesis

Hypothesis (H1). Perceived usefulness is positively associated with Al-Aqsa university students' continuance intention to use online learning

Hypothesis (H2). Perceived ease of use is positively associated with Al-Aqsa university students' continuance intention to use online learning

Hypothesis (H3). Perceived Irreplaceability (PIR) is positively associated with Al-Aqsa university students' continuance intention to use online learning

Hypothesis (H4). Perceived Credibility (PCR) is positively associated with Al-Aqsa university students' continuance intention to use online learning

Hypothesis (H5). Compatibility (COM) is positively associated with Al-Aqsa university students' continuance intention to use online learning

Hypothesis (H6). Social Influence (SI) is positively associated with Al-Aqsa university students' continuance intention to use online learning

3.1 Objectives

- The purpose of this study is to examine the factors Influencing Aqsa University students' continuance intention to use online learning through using TAM.
- The study aims to develop the e-learning system in Palestinian universities

3.2 Significance of The Study

The resulting study comes from recent global trends in educational technology under COVID19 pandemic. The current study provides a set of tools that benefit researchers in conducting complementary study because it will be one of the new researches which will discuss this topic.

4.0 Literature Reviews

E-Learning is an important techniques and strategies which Integrate between learning theories and ICT (information and communication technology) for improving teaching and learning. So, e-learning doesn't t only mean online learning, virtual learning, distributed learning and networked or web based learning but also E-Learning incorporates all educational activities that are carried out by individuals or groups working online or offline, and asynchronously via networked or standalone computers, mobile and other electronic devices (Mahdi, 2014).
Thus, e-learning may be taken as the latest form of distance learning mediated by state-of-art technologies like internet and worldwide web (Rana, Rajiv, & Lal, 2014). In addition, e-learning is a mixture between online learning, computer-based learning,

knowledge management, electronic performance support and videoconferencing which enabled by learning content management systems like Moodle that is one of the key tools of e-learning. Thus, e-learning is considered one of the most important innovations of information and communications technology which represents a priority in research and development; due to the rapid developments in the web systems that depend on it. (Mahdi & El-Hinawi, 2015).
Many studies have focused on the technical aspect as the most important success elements of e-learning such as: Al-Arimia (2014) which explained various key success factors of e-learning which are using technology to aid and enhance learning by visual and audio applications. Besides that, the studies of (Alhomod & Shafi, 2013; Raspopovic M. et al , 2014) emphasized that the positive attitude of users , student engagement and motivation them in learning have a relationship between students' academic achievement and students' satisfaction.

Many educational applications and programs have been used such as: Google's educational portfolio, Office 365, Apple applications, evaluation services sites and interactive activities. Also, during home quarantines, people looking to stay in touch through using video chat apps such as "Google Meet", "WhatsApp" and "Zoom". In addition, the different Palestinian universities use learning management system like Moodle to achieve learning and managements procedures.

By the way, Moodle is an open-source software that has a large community of software developers including numerous modules which aimed to managing learning. These characteristics that make Moodle the choice of more than 200 million users in the world. This popularity is also reflected in international scientific and academic events dedicated exclusively to this LMS as the case of the 1st Moodle Research Conference that organized in Greece in 2012 and more recently the MoodleMoot Global 2019 event in Barcelona (Gabriel, Pavel, & Rociıo, 2020).

Various previous studies have shown the effectiveness of Moodle in education where achieved acceptance and use it as a technological product to the most researchers based on the opinions of teachers and students of higher education (Conijn et al, 2017; Nistor, Stanciu, Lerche, & Kiel, 2019; De Medio et al,2020; Mahdi & Hammad, 2020). In this context of educational research, the technology acceptance literature presented a rich collection of models and theories for explaining the adoption of information technology innovations. Such models and theories include Innovation Diffusion Theory (IDT), Social Cognitive Theory, Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), Decomposed Theory of Planned Behavior (DTPB), Technology Acceptance Model (TAM) and The Unified Theory of Acceptance and Use of Technology (UTAUT) (Mahdi, 2014).

This study applied the Technology Acceptance Model (TAM) as the theoretical basis to investigate the factors influencing Al-Aqsa university students' continuance intention to use online learning which was used for understanding the adoption of technologies only within institutions (Natarajan et al, 2018). However, because of the excellent performance and simplicity, TAM model has become one of the widely used models for exploring users' behavior with study the acceptance, adoption and continuation of use the technologies.
Mahdi (2014) indicated that the technology acceptance model (TAM) presented by Davis (1989) and derived from a lot of researchers studies about the acceptance toward the ICT such as (Heo & Han, 2003; Hsu & Chiu, 2004; Jiang, Klein, & Carr, 2002; Shih

H. , 2004; Venkatesh a & Davis, 2000; Mali & Hassan, 2013; Park, 2009; Song, 2010). For this issue (86%) of the studies used (TAM) (Šumak et al., 2011).
TAM presents Perceived Ease of Use (PEOU) which is "the degree to which a person believes that using a particular system would be free of physical and mental effort", influences Perceived Usefulness (PU), which is "the degree to which a person believes that using a particular system would enhance his/her job performance" (Davis, 1989, p. 320). Where both beliefs influence Behavioral Intention (BI) to explain a user's intention to continuance intention to use a specific information technology.

Therefore, the simple TAM model with PU and PEOU would not be adequate for this study. Having considered this, this study includes the adoption of TAM with other variables (Perceived Irreplaceability, Perceived Credibility, Compatibility) to understand factors influencing Al-Aqsa university students' continuance intention to use online learning which has not been examined in local previous studies. However, below is an explanation of these variables:

Perceived Irreplaceability (PIR): In online learning context is defined as an individual's perception of specific usage behavior due to the perceived values that cannot be replaced by other activities (Wang et al., 2015).

Perceived credibility (PCR): The extent to which a person believes that the use of online learning will have no security or privacy threats.

Compatibility (COM): The degree to which online learning works with existing traditional learning functionalities and students' learning needs.

Continuance intention (CI): Al-Aqsa university students' intention to continue using online learning.

5.0 Development of Hypotheses

Based on the above variables and the purpose of this study six hypotheses have been proposed in this study based on the extending Technology Acceptance Model (TAM) to test the relationship among them. As the following:

Hypothesis (H1). Perceived Usefulness (PU) is positively associated with Al-Aqsa university students' continuance intention to use online learning

Hypothesis (H2). Perceived Ease Of Use (PEOU) is positively associated with Al-Aqsa university students' continuance intention to use online learning

Hypothesis (H3). Perceived Irreplaceability (PIR) is positively associated with Al-Aqsa university students' continuance intention to use online learning

Hypothesis (H4). Perceived Credibility (PCR) is positively associated with Al-Aqsa university students' continuance intention to use online learning

Hypothesis (H5). Compatibility (COM) is positively associated with Al-Aqsa university students' continuance intention to use online learning

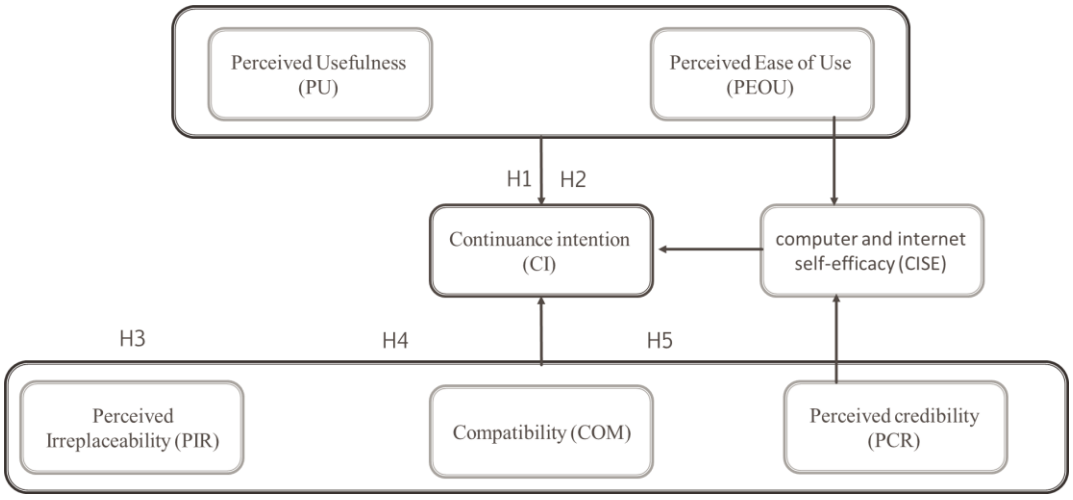

Figure 1. Conceptual Model of extending TAM and CI.

6.0 Research Methodology:

6.1 Method of Data Analysis

The method of descriptive approach was employed for data processing and the method of deduction was performed to analyze and interpret data. The study is used structural equation modelling (SEM) to evaluate the relationship among the proposed hypothesized concepts and to validate the used conceptual research model. SEM is one of the widely used credible multivariate statistical analysis techniques that has been used in many studies. AMOS (v.22) software was used in our study to analyses the collected data.

6.2 Population and Sample

Study Population: The current study population is consisted of all students at the university.

Sample: To test the research hypotheses of this study, the study is chosen the quantitative research method to collect data from random Al-Aqsa university students who use online learning. All data were collected by an electronic based survey via Google forms. In total, there were (265) respondents. Also, of the respondents, 10.9% were level (1) ,7.5% level (2), 42.3% level (3) and 39.2% level (4). Respondents level (3) represented the largest group in the sample, followed by respondents' level (4). On otherwise, the majority of the respondents had 60% of computer and internet self-efficacy (CIFS)

6.3 Delimitation of the Study:

1. **Local Delimitation:** The current study was applied at Al-Aqsa University.
2. **Human Delimitation:** It was applied on a sample that represented by (265) students.
3. **Time Delimitation:** The current study was applied on 2020-2021 semester.

6.4 Measures and Instrument Development:

To achieve the study objectives, a structured questionnaire was used which contains:

1. **The Questionnaire Background:** The questionnaire built based on some studies found in literature such as (Mahdi H. R., 2014; Gabriel et al.,2020; Nistor et al.,2019; Conijn et al.,2017; Natarajan et al.,2018; Ahmad et al.,2020).
2. **The Questionnaire Describe:** An online survey questionnaire was developed to obtain the responses from undergraduate students at Al-Aqsa University. The survey questionnaire had two sections, namely, Part A and B. Part A include questions on academic specialization, academic level and computer and internet self-efficacy(CIFS). Part B include All questions relating to the seven variables (21 items). Also, we used Five-point Likert scale to measure each item ranging according to following scale: 1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree, and 5 = strongly agree. By doing this, it allowed focusing on the examination of the homological relationship linking these constructs to build upon existing literature that identified and validated the relationships between many of these constructs.
3. Pretest of the Questionnaire: A pilot study was conducted with a random sample of 30 students who were Al-Aqsa university students and used online learning. The main reason for the pilot study was to make sure there would not be any problems during the main data collection phase. No significant problem was identified, apart from a few wording related problems which were subsequently fixed. It is worth noting that, after the pilot study, a pool of experts further checked our structured questionnaire, especially for Part B where there was a total of (21) items. The questionnaire's reliability was evaluated, and the Cronbach's a value (ranging from 0.86 to 0.92) exceeded common requirements for exploratory research, indicating a satisfactory level of reliability.
4.Assessing model fit: To ensure proper matching of the model and the relative fit of data to the model, confirmatory factor analysis was used through the Amos program as seen in (Table 1).

Table (1). Model fit

Fit Indices	Recommended Value	Research Model
x^2/df	1-3	2.331
GFI	≥0.9	0.873
AGFI	≥0.8	0.832
CFI	≥0.9	0.954
TLI	≥0.9	0.944
IFI	≥0.9	0.954
RMR	Close to zero	0.053
RMSEA	0.05-0.08	0.071

The value of x^2/df =2.331 less than 3 and meet the accepted standard. Also, the value of GFI = 0.873 was very close to the recommended value of 0.90. Nevertheless, researchers such as (Baumgartner & Homburg, 1996) have suggested that a value greater than or equal to 0.8 is also a good fit. In addition, the values of (AGFI =0.832, CFI =0.954, TLI=0.944, IFI=0.954) greater than recommended value and meet the accepted standard. Also, the value of RMR =0.053 has been recommended to be close to zero and the value of RMSEA=0.071 has been recommended to be between 0.05 and 0.08. So, we can say the model is fit and accepted.

5. Reliability and validity of measurement scales: To ensure the reliability and validity convergent validity (SRW) and squared multiple correlation (SMC) were used as presented in Table (2).

Table (2). Reliability and validity of measurement scales

Scales		Latent variables	Estimate	S.E.	C.R.	P	SRW	SMC
pu1	<---	Perceived usefulness	1				0.835	0.697
pu2	<---		1.017	0.06	17.27	0.001	0.857	0.734
pu3	<---		1.038	0.06	17.46	0.001	0.859	0.738
pu4	<---		1.111	0.06	17.68	0.001	0.872	0.76
peou3	<---	Perceived ease of use	1				0.859	0.738
peou2	<---		0.997	0.06	16.65	0.001	0.82	0.672
peou1	<---		0.96	0.06	16.17	0.001	0.817	0.667
Pir3	<---	Perceived Irreplaceability	1				0.793	0.629
Pir2	<---		0.99	0.08	12.33	0.001	0.721	0.52
Pir1	<---		0.992	0.08	12.58	0.001	0.737	0.543
pc1	<---	Perceived Credibility	1				0.808	0.653
pc2	<---		1.017	0.07	14.47	0.001	0.802	0.643
pc3	<---		1.053	0.07	14.18	0.001	0.813	0.661
co1	<---	Compatibility	1				0.839	0.704
co2	<---		1.007	0.06	17.5	0.001	0.852	0.726
co3	<---		1.063	0.06	17.69	0.001	0.853	0.728
co4	<---		0.981	0.06	15.94	0.001	0.806	0.65
co5	<---		1.01	0.06	17.93	0.001	0.863	0.745
ci1	<---	continuance intention	1				0.91	0.828
ci2	<---		0.974	0.04	25.63	0.001	0.929	0.863
ci3	<---		0.989	0.05	21.76	0.001	0.883	0.78

Table (2) shows that all scales were reliability and validity, where SRW and SMC values for all scales were greater than 0.5. Similarly, all p values were significant. Therefore, we can be said that the model has achieved all scales of model fit and it has proven its conformity with the actual data. This gives the model credibility to measure the effect of the extended TAM model on continuance intention. The final items are presented in Table(3). It had participated in the pretest were excluded from the final data collection and subsequent study.

Table (3). Construct measurement

Construct	Item	Measure
Perceived usefulness	pu1	Using the online learning system improves my learning performance.
	pu2	Utilizing online learning system enhances efficacy of my learning
	pu3	Use of online learning system leads to my increased productivity in learning
	pu4	I find the online learning system to be useful in my study.
Perceived ease of use	Peou1	Your interaction with the online learning system is clear and understandable
	Peou2	I believe that the online learning system is easy to use

	Peou3	I found it easy to get the online learning system to do what I want it to do.
Perceived Irreplaceability	Pir1	I think the online learning system are superior to traditional learning
	Pir2	I think traditional learning, can't complete some functional tasks as the online learning system do
	Pir3	The data provided by online learning system are in line with my personal learning data
Perceived Credibility	Pc1	I find online learning system credible
	Pc2	An adequate protection of my personal learning information makes it more possible for me to use online learning system
	Pc3	It is more possible for me to use online learning system if my personal learning information will be protected
Compatibility	Com1	Using the online learning system is compatible with most aspects of my learning needs.
	Com2	Using the online learning system fits my learning style.
	Com3	Using the online learning system fits well with the way I like to study.
	Com4	Using the online learning system is compatible with my past computer experience.
	Com5	Use of the online learning system is appropriate for my values towards the role of it.
Continuance Intention	Ci1	I will use the online learning system on a regular basis in the future
	Ci2	I will frequently use the online learning system in the future
	Ci3	I will strongly recommend that others use the online learning system

6.5 Structural Model Testing:

The results of the structural model tested for this study are shown in Table 4.

Table (4). Structural model.

Hypothesis	Path			B	S.E.	C.R.	P	Supported
H1	ci	<---	Pu	0.171	0.025	6.75	0.001	Yes
H2	ci	<---	Peou	0.067	0.035	1.908	0.056	No
H3	ci	<---	Pir	0.168	0.036	4.606	0.001	Yes
H4	ci	<---	Pc	0.052	0.035	1.479	0.139	No
H5	ci	<---	Com	0.338	0.022	15.646	0.001	Yes

The perceived usefulness of the online learning significantly predicted Al-Aqsa university students' continuance intention to use them (H1: B = 0.171, $p < 0.001$). The results show that a one-unit change in PU directs a 0.171-unit change in CI. Likewise,

CI was also significantly predicted by Al-Aqsa university students' beliefs about irreplaceability as a one-unit change in PIR directed 0.168 units change in CI (H3: B = 0.168, p < 0.001). Likewise, The compatibility of such online learning with Al-Aqsa university students' existing technologies shaped their intention to continue using them, CI was also significantly predicted by Al-Aqsa university students' beliefs about compatibility as a one-unit change in COM directed 0.338 units change in CI (H5: = 0.338, p < 0.001).

These results are connected with many studies that have found that customers' perceived usefulness, perceived compatibility and perceived irreplaceability related to a new technology influenced their initial intention to use them and additionally influenced their continuance intention to use them according to (Ahmad et al., 2020; Mahdi H. R., 2014; Chow et al.,2012; Cheng, 2015).

On otherwise, the Perceived ease of use of the online learning has no significantly predicted Al-Aqsa university students' continuance intention to use them (H2: B = 0.067, p < 0.056). Similarly, continuance intention has also no significantly predicted by Al-Aqsa university students' beliefs about Perceived Credibility (H4: B= 0.052, p < 0.139). However, other researchers support that perceived ease of use does not have a significant influence on user continuance intention (Chow et al.,2012; Nasri & Charfeddine, 2012). Similarly, the study of (Kim & Song, 2020) dos not find a direct influence of the credibility on purchase intention.

7.0 Conclusion: Results and Suggestions

Based on the extended TAM, this study enhances the understanding the roles play of TAM factors in the continuance intention of online-learning and it offers relevant implications and suggestions for online learning providers wishing to realize learners' acceptance of online learning. The discussions are further detailed in the following sections.
The results show in (Table 4) the effects of perceived usefulness, Perceived Irreplaceability and compatibility on learners' continuance intention to use online learning.

The result implicates that if learners can achieved usefulness directly through the content and interface screens over the online learning environments at any time in any location, they will be more likely to regard online-learning as both useful and enjoyable. Thus, learners' perceived usefulness will further facilitate their continuance intention to use online learning. Accordingly, the online learning environments and courses should be designed based on the universal design for learning.

As the testing result of compatibility related hypothesis show (Table 4), learners intend to use online learning because they perceive it to be more compatible with most aspects of their learning. The result implicates that learners can judge online learning by how well it meets their perceived compatibility of online learning. Thus, this study suggests that online learning providers should make their online learning services run compatibly with learners' existing needs, and learning styles.

Furthermore, the results refer that a successful online learning design should be widely compatible with learners' behaviors that is related to their existing needs and

learning styles, so it can achieve the effectiveness, efficiency, and motivation of usage to learners. Further reinforcing their continuance intention through increasing the extent of their perceived compatibility of online learning. In general, online learning has techniques and tools which provide the opportunities for the learners to have their own individualized learning ways based on their preferred learning styles.
The results related to perceived irreplaceability (table 4) suggests that online learning are functionally different from traditional learning in meeting the Al-aqsa university students' learning requirements; therefore, they will continue to use them.
Because of the Characteristics of online learning, the students have been built symbolic meaning of online learning that they perceive cannot be found in other forms of learning. Hence, they are more likely to go ahead of using the online learning which considered as irreplaceable.

The above findings are consistent with the views of previous studies (Ahmad et al.,2020; Mahdi H. R., 2014; Chow et al., 2012; Cheng, 2015). More particularly, this study makes a strong contribution by validating the roles of perceived irreplaceability and compatibility. By the way, these factors have never been locally examined before in the context of investigating students' continued intention to use online learning.
On otherwise, the result of hypotheses show (Table 4), The Perceived ease of use and Perceived Credibility of the online learning have no significantly predicted Al-Aqsa university students' continuance intention to use them.

Even though, students in general were confident about their computer and internet skills where the computer and internet self-efficacy received average score of 3 out of a range of 1 (very high degree) to 1 (very low degree), the findings revealed that they did not find the online learning easy to use, as the perceived ease of use received average score of 2.7 out of a range of 1 (strongly disagree) to 1 (strongly agree).
This might help to explain the relatively effect that computer and internet self-efficacy had on perceived ease of use and Perceived Credibility. So the researchers tested the effect of computer and internet self-efficacy as a mediating variable between perceived ease of use and continuance intention to use online learning, where the results refer there are a positive effect of computer and internet self-efficacy as a mediating variable between perceived ease of use and continuance intention to use online learning. Also, The perceived ease of use of the online learning has significantly predicted Al-Aqsa university students' continuance intention to use them as table (5). In addition, The total (direct and indirect) effect of computer and internet self-efficacy on continuance intention is 1.493. That is, due to both direct (unmediated) and indirect (mediated) effects of computer and internet self-efficacy on continuance intention, when computer and internet self-efficacy goes up by 1, continuance intention goes up by 1.493.

Likewise, The total (direct and indirect) effect of perceived ease of use on continuance intention is 0.779. That is, due to both direct (unmediated) and indirect (mediated) effects of perceived ease of use on continuance intention, when perceived ease of use goes up by 1, continuance intention goes up by 0.779. Also, The total (direct and indirect) effect of computer and internet self-efficacy on when perceived ease of use is 1.534. That is, due to both direct (unmediated) and indirect (mediated) effects of computer and internet self-efficacy on when perceived ease of use, when computer and internet self-efficacy goes up by 1, when perceived ease of use goes up by 1.534.

Table (5). computer and internet self-efficacy (Cisf) as a mediating variable between perceived ease of use (Peou) and continuance intention(Ci).

Path			B	S.E.	C.R.	P	Total Effects	Supported
Cisf	<---	Peou	0.209	0.019	11.155	0.001	1.534	Yes
Ci	<---	Peou	0.779	0.056	13.816	0.001	0.779	Yes
Ci	<---	Cisf	0.297	0.153	1.946	0.052	1.493	Yes

Likewise, the researchers tested the effect of computer and internet self-efficacy as a mediating variable between perceived Credibility and continuance intention to use online learning, where the results refer there are a positive effect of computer and internet self-efficacy as a mediating variable between perceived Credibility and continuance intention to use online learning. Also, The perceived Credibility of the online learning has significantly predicted Al-Aqsa university students' continuance intention to use them as table (6). Where, The total (direct and indirect) effect of perceived Credibility on computer and internet self-efficacy is 0.192. That is, due to both direct (unmediated) and indirect (mediated) effects of perceived Credibility on computer and internet self-efficacy when perceived Credibility goes up by 1, computer and internet self-efficacy goes up by 0.192. Also, the total (direct and indirect) effect of computer and internet self-efficacy on continuance intention is 0.528. That is, due to both direct (unmediated) and indirect (mediated) effects of computer and internet self-efficacy on continuance intention, when computer and internet self-efficacy goes up by 1, continuance intention goes up by 0.528. Similarly, The total (direct and indirect) effect of perceived Credibility on continuance intention is 0.688. That is, due to both direct (unmediated) and indirect (mediated) effects of perceived Credibility on continuance intention, when perceived Credibility goes up by 1, continuance intention goes up by 0.688.

Table (6). Computer and internet self-efficacy (Cisf) as a mediating variable between perceived Credibility (Pc) and continuance intention (Ci)

Path			B	S.E.	C.R.	P	Total Effects	Supported
Cisf	<---	Pc	0.192	0.019	9.856	0.001	0.192	Yes
Ci	<---	Cisf	0.528	0.156	3.385	0.011	0.528	Yes
Ci	<---	Pc	0.688	0.058	11.928	0.001	0.789	Yes

Finally, the study took computer and internet self-efficacy into account to correct the effect of the perceived ease of use and perceived credibility of Al-Aqsa university students' continued intention to use online learning. Therefore, the extended TAM model (Perceived Usefulness, Perceived Ease of Use, Perceived Irreplaceability, Perceived Credibility, Compatibility) success to understand factors influencing Al-Aqsa university students' continuance intention to use online learning. In addition, this study suggests that future researchers include computer and internet self-efficacy in their research.

References

Alhomod, S., & Shafi, M. (2013, April). Succcess factors of e-learning projects: A technical perspective. TOJET: The Turkish Online Journal of Educational Technology, 12(2), pp. 247-253.

Adaji, I., & Vassileva, J. (2017). Perceived Effectiveness, Credibility and Continuance Intention in Ecommerce: A Study of Amazon. Persuasive Technology conference (pp. 293–306). P.W. de Vries et al. (Eds.): PERSUASIVE 2017, LNCS 10171: Springer International Publishing.

Ahmad, A., Rasul, T., Yousaf, A., & Zaman, U. (2020). Understanding Factors Influencing Elderly Diabetic Patients' Continuance Intention to Use Digital Health Wearables: Extending the Technology Acceptance Model (TAM). J. Open Innov. Technol. Mark. Complex, 6(81), pp. 1-15.

Al-Arimi, A. M. (2014). Distance Learning. Procedia - Social and Behavioral Sciences 152 , pp. 82 – 88 .

Al-Arimia, A. (2014). Distance Learning. Procedia - Social and Behavioral Sciences, 152, pp. 82 – 88.

ALhomod , S., & Shafi, M. (2013, April). SUCCESS FACTORS OF E-LEARNING PROJECTS: A TECHNICAL PERSPECTIVE. TOJET: The Turkish Online Journal of Educational Technology – volume 12 Issue 2.

Baumgartner , H., & Homburg, C. (1996). Applications of structural equation modeling in marketing and consumer research: A review. Int. J. Mark. Res, 13, pp. 139–161.

Buheji, M and Ahmed, D (2020) Implications of Zoom and Similar Apps on 'Flip-class' Outcome in the New Normal, International Journal of Learning and Development, Vol (10):3, 1-10.

Buheji, M (2019) Eliminating Poverty Through Educational Approaches-The Indian Experience, Review of European Studies; Vol. 11, No. 3; 32-44.

Cheng, Y. (2015). Towards an understanding of the factors affecting m-learning acceptance: Roles of technological characteristics and compatibility. Asia Pac. Manag. Rev, 20, pp. 109-119.

Chow, M., Herold, D., Choo, T., & Chan, K. (2012). Extending the technology acceptance model to explore the intention to use second life for enhancing healthcare education. Computers & Education, 59(4), pp. 1136-1144.

Conijn , R., Snijders, C., Kleingeld, A., & Matzat, U. (2017). Predicting student performance from LMS data: A comparison. IEEE Transactions on Learning Technologies, 10(1), pp. 17–29.

De Medio, C., Limongelli, C., Sciarrone, F., & Temperini, M. (2020). MoodleREC: A recommendation system for creating courses using the moodle e-learning platform. Computers in Human Behavior, 14, pp. 1-31. doi:10.1016/j.chb.2019.106168

Elizabeth, C (Noor), Buheji, M, Ahmed, D. Abdulkareemd, T. Buheji, A, Buheji, B, Eidand, S and Perepelkin, N (2020) Emergency remote education in Bahrain, Iraq, and Russia During the COVID-19 pandemic: A comparative case study. Human Systems Management, 39(4), p.473–493.

Gabriel, M. G., Pavel, N.-H., & Rociıo, R. S. (2020). Technology Acceptance Model and Moodle: A systematic mapping study. Information Development, pp. 1-16. doi:10.1177/0266666920959367

Hanover Research. (2011, June). Distance Education Models and Best Practices. Hanover Research - Academy Administration Practice.

Kim, J., & Song, H. (2020). The influence of perceived credibility on purchase intention via competence and authenticity. International Journal of Hospitality Management, 90, pp. 1-11.

Mahdi, H. R. (2014). Investigating Students' Acceptance and Self-Efficacy of E-Learning at Al-Aqsa University Based On TAM Model. International Journal of Web-Based Learning and Teaching Technologies, 9(3), pp. 37-52.

Mahdi, H. R., & Hammad, T. (2020). Success Factors and Challenges for Distance Learning Technologies in The Palestinian Higher Education under COVID 19 (Case Study: Al-Aqsa University). MAGAZINE BOUHOUTH- SCR London, pp. 13-26. Retrieved from www.scrlondon.com

Nasri, W., & Charfeddine, L. (2012). Factors affecting the adoption of internet banking in Tunisia: an integration theory of acceptance model and theory of planned behavior. The Journal of High Technology Management Research, 23(1), pp. 1-14.

Natarajan, T., Balasubramanian, S., & Kasilingam, D. (2018). The moderating role of device type and age of users on the intention to use mobile shopping applications. Technol. Soc, 53, pp. 79-90.

Nistor , N., Stanciu, D., Lerche, T., & Kiel, E. (2019). "I am fine with any technology, as long as it doesn't make trouble, so that I can concentrate on my study": A casestudy of university students' attitude strength related to educational technology acceptance. British Journal of Educational Technology, 50(5), pp. 2557–2571.

Perez, S. (2020, March 28). https://techcrunch.com/2020/03/28/this-week-in-apps-apple-launches-a-covid-19-app-the-outbreaks-impact-on-social-and-video-apps-and-more/. Retrieved from This Week in Apps: Apple launches a COVID-19 app, the outbreak's impact on social and video apps and more.

Rana, H., Rajiv, & Lal, M. (2014). E-learning: Issues and Challenges. International Journal of Computer Applications, 97(5), pp. 20-24.

Raspopovic, M., Jankulovic, A., Runic, J., & Lucic, V. (2014, July). Success Factors for e-Learning in a Developing Country : A Case Study of Serbia. International Review of Research in Open and Distance Learning,Vol 15 | No 3 , pp. 1-23.

Raspopovic, M., Jankulovic, A., Runic, J., & Lucic, V. (2014, July). Success Factors for e-Learning in a Developing Country: A Case Study of Serbia. The International Review of Research in Open and Distance learning(IRRODL), 15(3), pp. 1-23.

Wang, C., Lee, M., & Hua, Z. (2015). A Theory of Social Media Dependence: Evidence from Microblog Users. Decision Support Systems, 69, pp. 40-49.

Zuhairi, A. (2019, October 31). Supporting students to succeed in open and distance learning in the Open University of Sri Lanka and Universitas Terbuka Indonesia. Asian Association of Open Universities Journal.