



Data Article

Dataset on the Acceptance of e-learning System among Universities Students' under the COVID-19 Pandemic Conditions

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ABSTRACT

The COVID-19 pandemic has produced an unprecedented change in the educational system worldwide. Besides the economic and social impacts, there is a dilemma of accepting the new educational system "e-learning" by students within educational institutions. In particular, universities students have to handle several kinds of environmental, electronic and mental struggles due to COVID-19. To catch the current circumstances of more than two hundred thousand Jordanian university student during COVID-19. The students have been randomly selected to respond on an online survey using universities' portals and websites between March and April 2020. At the end of the data gathering process, we have received 587 records. The dataset includes 1) Demographics of students; 2) students' perspectives concerning the factors influencing their intention to use e-learning system within the Jordanian universities context. Data were analyzed using Partial Least Squares - Structural Equation Modelling (PLS-SEM). Next, the result has confirmed the positive of direct effect variables (subjective norm, perceived ease of use, and perceived usefulness) on the students' intention to use e-learning system. Next, the result has also confirmed the mediating effect of perceived usefulness and perceived

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ease of use between subjective norm and the behavioral intention to use the e-learning system with partially supported.
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Specifications Table

Subject	Education, Education Management
Specific subject area	The Jordanian universities students' intention to use e-learning system during the COVID-19 pandemic, subjective norm (SN), perceived ease of use (PEU), and perceived usefulness (PU), technology acceptance model (TAM).
Type of data	The raw data is available in Excel Workbook format. The analysed data in this article are provided in tables and figures.
How data were acquired	Online Survey
Data format	Raw
Parameters for data collection	The target population of this work was Jordanian universities students who are affected by COVID-19 pandemic. In light of the universities closure, all Jordanian universities have converted to the e-learning system. as a result, more than 200 thousand students from various universities were required to handle with a new educational system unprecedentedly.
Description of data collection	We collected data using an online survey through universities' portals and websites between March and April 2020. The participants of this dataset were the Jordanian universities students. In this regard, the questionnaire is provided as a supplementary file
Data source location	Jordan
Data accessibility	Repository name: Mendeley Data Data identification number: 1 Direct URL to data: https://bit.ly/3i8KkI5 .

Value of the Data

- The dataset is valuable because it can be utilized as a reference for understanding the effect of factors, namely: subjective norms, perceived ease of use and perceived usefulness on the student's intention to accept the e-learning system.
- This data presents the natural flow to measure students' intention to acceptance/use the e-learning system during COVID-19 pandemic, which can be replicated in other countries.
- This data can help to understand the factors that affect the e-learning system acceptance through integrating subjective norms with the extended Technology Acceptance Model (TAM). Besides, using both variables: perceived ease of use and perceived usefulness as mediation between subjective norms and the e-learning system acceptance.
- Finally, the data is useful for all parties involved, especially for universities management, ministry of higher education, decision-makers in a country, researchers and practitioners in the e-learning system.

1. Data description

The data presented in this paper is focused on the students in the Jordanian universities who using the e-learning system. The research was conducted according to and complies with all regulations established in the ethical guidelines by the Jordanian Ministry of Higher Education and Scientific Research. The data file spreadsheet accompanying this article consists of 587 rows and 24 columns of dataset. Every row represents an individual's response to a survey. A five-point range scale was applied to allow the respondents to indicate how much they disagree or

Table 1

Item Loading (IL), Composite Reliability (CR), and Average Variance Extracted (AVE).

Construct Name	Items Name	IL	CR	AVE		
Behavioral Intention (BI)	BI1	0.924	0.932	0.864		
	BI2	0.932		0.87		
	BI3	0.93				
	BI4	0.946				
Perceived Ease of Use (PEU)	PEU1	0.893	0.932	0.774		
	PEU2	0.924				
	PEU3	0.883				
	PEU4	0.818				
Perceived Usefulness (PU)	PU1	0.888	0.929	0.768		
	PU2	0.918				
	PU3	0.785				
	PU4	0.907				
Construct Name	IN	IL	CR	AVE		
Second-Order	First-Order					
Subjective Norms (SN)	Social Influence (SI)	SI1	0.843	0.883	0.653	
		SI2	0.828			
		SI3	0.807			
		SI4	0.752			
	Peer Influence (PI)	PI1	0.907	0.847		0.818
		PI2	0.901			
		PI3	0.923			
		PI4	0.888			

agree with a certain statement, so a numerical value in the dataset file means the respondent level of agreement, with 1 being "strongly disagree" and 5 being "strongly agree". Demographic dataset regarding Jordanian universities students' profile indicated that 394 were male and 193 were female. Regarding the age 148 (25%) of the respondents were between 18 and 20 years old, 311 (53%) of the respondents were between 21 and 23 years old, and 128 (22%) of the respondents were more than 23 years. The majority of respondents were bachelor students 572 (97%) followed by master degree 15 (3%). Of the 587 students that participated in the study, 111 are from the Faculty of Business, 172 from the Faculty of Languages and Arts, 39 from the Faculty of Engineering, 116 from the Faculty of Pharmacy, 125 from the Faculty of Educational Sciences, and 24 from the Faculty of Law. Further, each variable's items in the questionnaire was given a label, as shown in [Table 1](#).

Wherein, the majority of respondents were undergraduate students (572). Of the 587 students that participated in the study, 172 from the Faculty of Languages and Arts, 116 from the Faculty of Pharmacy, 111 are from the Faculty of Business, 77 from Faculty of Science and Information Technology, 48 from Faculty of Educational Sciences, 39 from the Faculty of Engineering, and 24 from the Faculty of Law.

[Table 1](#). shows the test of measurement model (inner model) including composite reliability, indicators reliability, average variance extracted. In regard to the composite reliability, the criterion of composite reliability was assessed to verify the internal consistency reliability. The values showed the constructs scores are at acceptable level of reliability [2,3]. Hence, internal consistency was confirmed. For the factors' loading, all items were higher than 0.70. Besides, the validity of the instrument was proved by calculating the average variance extracted [1]. Wherein, the results of the average variance extracted (convergent validity) are at acceptable level, which all variables have average variance extracted value larger than 0.50 (see [Table 1](#)).

In addition, as shown in [Table 2](#) the test of discriminant validity was also a part of measurement model (inner model) assessments. The discriminant validity was conducted to evaluate the range to which a provided study latent variable is distinct from others. Hence, when the average variance extracted of an individual latent construct is higher than the multiple squared correlations of that construct with other constructs, the discriminant validity will be at an acceptable

Table 2
Fornell–Larcker criteria (The AVE square root).

	BI	PI	PEU	PU	SI
Behavioral Intention	0.933				
Peer Influence	0.641	0.905			
Perceived Ease of Use	0.774	0.636	0.88		
Perceived Usefulness	0.812	0.685	0.837	0.876	
Social Influence	0.667	0.764	0.648	0.693	0.808

Note: The square root of the AVE values shown in bold represent.

level [4]. Thus, the results revealed that all studied variables had good discriminant validity values (see Table 2).

2. Experimental design, materials and methods

Data were gathered using online survey through Jordanian universities students' portals and websites (between March and April 2020). The students were asked to fill in the online questionnaire through the provided link. From those students, there were 587 responses. The questionnaire and the answers to the questions are provided as a supplementary file. The data were analysed using statistical test including PLS-SEM approach. We used Smart PLS 3.0 software [1]

The study's model was contained two level of constructs (upper and lower), thus to conduct the measurement model assessment, each of composite reliability, indicators reliability, average variance extracted, and discriminate validity were tested. In regard to the composite reliability, the criterion of composite reliability was assessed to verify the internal consistency reliability. The values in Table 1 showed the constructs scores exceed the acceptable level of reliability 0.7 [2,3] (see Table 1). Hence, internal consistency was confirmed. Besides, all factors' loading is higher than 0.70. The validity of the instrument was proved by calculating the average variance extracted [1]. Wherein, the average variance extracted is the indicator used for measuring convergent validity, by measuring the variance value of that the items share with their respective variable [1]. The results of the average variance extracted (convergent validity) are also presented in Table 1, which all variables have average variance extracted value larger than 0.50.

Finally, the discriminant validity test as shown in Table 2 was also conducted to evaluate the range to which a provided study latent variable is distinct from others. Whereby, when the average variance extracted of an individual latent construct is higher than the multiple squared correlations of that construct with other constructs, the discriminant validity will be at an acceptable level [4]. As illustrated in Table 2, all studied variables had good discriminant validity values.

Ethics statement

This work neither involves chemicals, procedures or equipment that have any unusual hazards inherent in their use nor involves the use of animal or human subjects.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships which have, or could be perceived to have, influenced the work reported in this article.

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Supplementary materials

Supplementary material associated with this article can be found, in the online version, at <https://bit.ly/3i8Kkl5> (Mendeley Data).

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