EVALUATING FOUR FACTORS AFFECTING PERCEPTIONS OF STUDENTS OF FACULTY OF LAWS ON THE ACCEPTANCE OF ONLINE COURSES USING PLS-SEM APPROACH

Yiming Chen[1], Yingsoon Goh[2*]

[1] *Faculty of Education and Liberal Studies, City University Malaysia, 46100 Petaling Jaya, Selangor, Malaysia.*
[2] *Academy of Language Studies, Universiti Teknologi MARA, 40450 Shah Alam, Selangor Darul Ehsan, Malaysia*
[1*] *Corresponding author: gohyi141@uitm.edu.my*

ABSTRACT

This article discusses the four factors affecting the perceptions of students of the Faculty of Laws on the Acceptance of Online Courses (AOC). These four factors are attitude toward online courses (AT), self-regulation skills (SRL), self-efficacy on online courses (SE), and facilitating conditions for online courses (FC). This study engaged a survey of Students of the Faculty of Laws on the Acceptance of Online Courses Using PLS-SEM Approach. The PLS-SEM method was utilized by using Smart-PLS version 4. The study's findings have confirmed these four factors: Acceptance of Online Courses (AOC). These four factors are attitude toward online courses (AT), self-regulation skills (SRL), self-efficacy on online courses (SE), and facilitating conditions for online courses (FC), which have positive and significant effects on the acceptance of Online Courses (AOC) of the students. Therefore, related implications and suggestions are proposed to help in enhancing the level of Acceptance of Online Courses (AOC) of the students.

Keywords: *PLS-SEM, Acceptance of Online Courses (AOC), Attitude on online courses (AT), Self-Regulation Skills (SRL), Self-efficacy on online courses (SE), and Facilitating Conditions for online courses (FC).*

INTRODUCTION

According to the research findings, the development of online education in various foreign countries and the importance of different countries' online education are due to the different educational characteristics of different countries. Research on online education at home and abroad summarizes and analyzes the development status, advantages and disadvantages of online education in different countries to better develop online education in the next step. In the future, online education not only has great development but also great potential. In the future, online education will change from an auxiliary means to an important way of education, which is in line with the trend of development and convenient for more people to receive education (Alemayehu & Chen, 2021). Online education is one form, but the core is content and service. Online education ultimately competes with high-quality educational resources, which is the core competitiveness of online education. Currently, many universities provide online courses for students, and many courses can be obtained corresponding credits through online learning and passing exams. This is a trend and a way to utilize high-quality education resources rationally. In terms of educational resources, universities have natural advantages. Universities themselves are also places where high-quality resources are concentrated. How to serve these high-quality educational resources to the wider community so that more people have the opportunity to access these high-quality educational resources is an important problem to be solved in online education.

doi.org/10.59021/ijebt.v1i1.11

Article History
Received : 26/12/2022
Revised : 25/03/2023
Revised : 07/04/2023
Accepted : 02/07/2023

LITERATURE REVIEW

Acceptance of online courses (AOC) refers to how the students perceive that the online learning experience brings about positive learning outcomes (Ali, 2020; Daniel, 2020; Hodges, Moore, Lockee, Trust, & Bond, 2020; Murphy, 2020). Only online learning can be successful with the positive acceptance of the students.

Attitude on online courses (AT) refers to students' feelings about using online courses for law learning. Students' attitudes are often related to their motivation and engagement in online learning (Ferrer et al., 2022).

While self-regulation skills (SRL) are often related to the learners' perceived self-regulation skills to support using online learning for law learning, self-regulation skills involve using rightful strategies for remote learning (Carter et al., 2020).

On the other hand, self-efficacy in online courses (SE) is linked to the learners' perceptions of their abilities to use online learning platforms to support their law learning. According to Kuo et al. (2014), self-efficacy predicts students' satisfaction in online learning environments, interaction, self-regulation skills, etc.

Lastly, facilitating conditions for online courses (FC) is defined as the students' perceived availability of support from the learning environment that facilitates online learning. Facilitating conditions prepare to enable learning environments to support online learning (Bervell & Arkorful, 2020).

The research problem of this study is to identify the factors that influence the acceptance of online courses among students. Specifically, the study investigates the relationships between attitudes, self-regulation skills, self-efficacy, facilitating conditions, and student's perception of the acceptance of online courses. The study seeks to address the gap in knowledge and understanding of the factors influencing the adoption and acceptance of online courses, which is becoming increasingly important in the current educational landscape.

The related Research Questions include:

RQ1: What is the relationship between attitudes towards online courses and perception of their acceptance among students?

RQ2: How do self-regulation skills affect students' perception of the acceptance of online courses?

RQ3: Does self-efficacy impact students' acceptance of online courses?

RQ4: How do facilitating conditions influence students' perception of the acceptance of online courses?

In sum, there are four research hypotheses in this study. They are:

H1: The attitude toward online courses will significantly affect the perception of the acceptance of online courses.

H2: Self-regulation skills will significantly positively affect the perception of the acceptance of online courses.

H3: Self-efficacy will have a significant positive effect on the perception of the acceptance of online courses.

H4: The facilitating conditions will significantly positively affect the perception of the acceptance of online courses.

doi.org/10.59021/ijebt.v1i1.11

METHODOLOGY

The research aims to investigate students' perceptions of online teaching. Participants will take a 2-month task-based online course, and then they will be asked to complete a questionnaire. Data will be collected from the questionnaire. Figure 1 below shows the research process of this study. The research flowchart guides the whole process of this study.

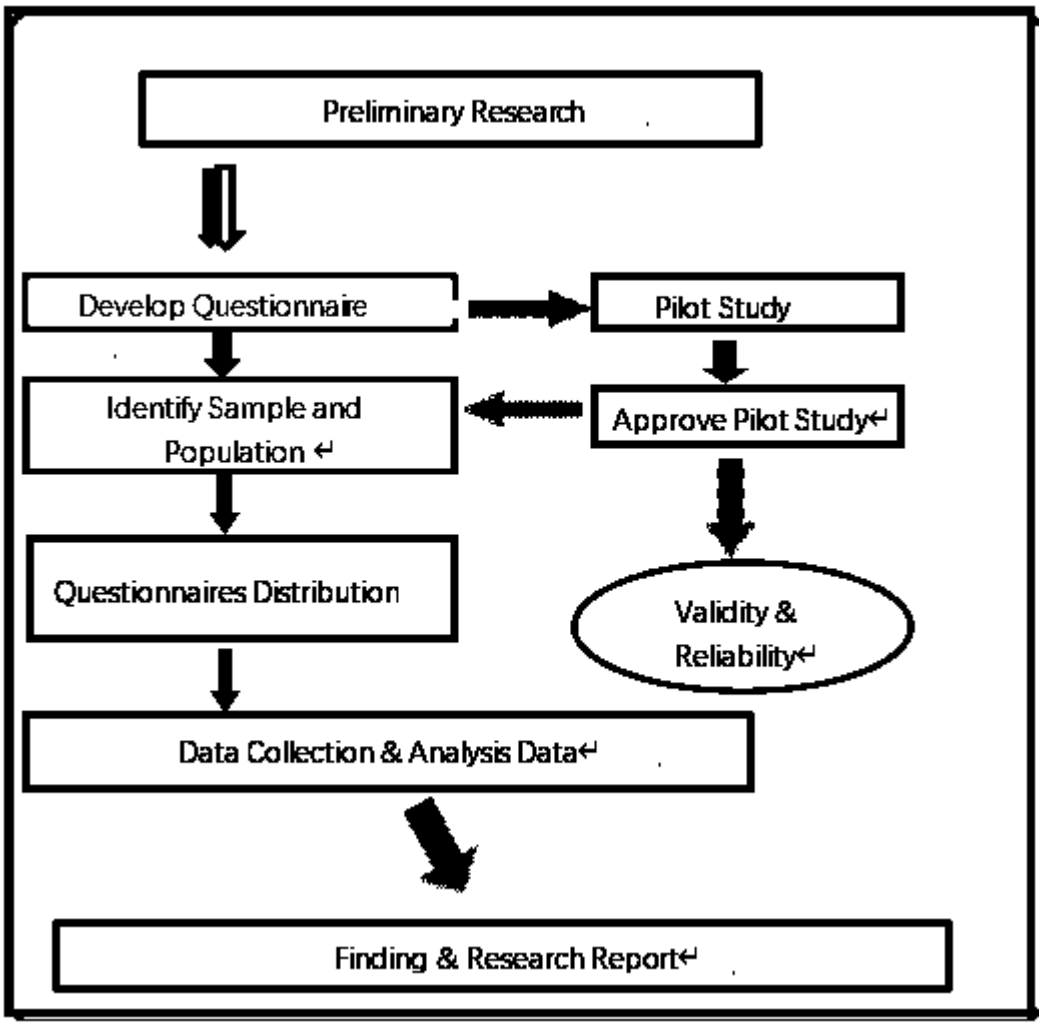

Figure 1. Research Flowchart

By using A-priori Sample Size Calculator for Structural Equation Models https://www.danielsoper.com/statcalc/calculator.aspx?id=89), with anticipated effect size: 0.3, which is medium effect size, desired statistical power level: 0.8, number of latent variables: 5, number of observed variables: 20, as the total items, and Probability level:0.05, the results are shown in Figure below. The minimum Sample Size to detect effect is 150, the minimum Sample Size for model structure is 128 and the recommended minimum Sample Size is 150. Thus, the sample used in this study is adequate.

doi.org/10.59021/ijebt.v1i1.11

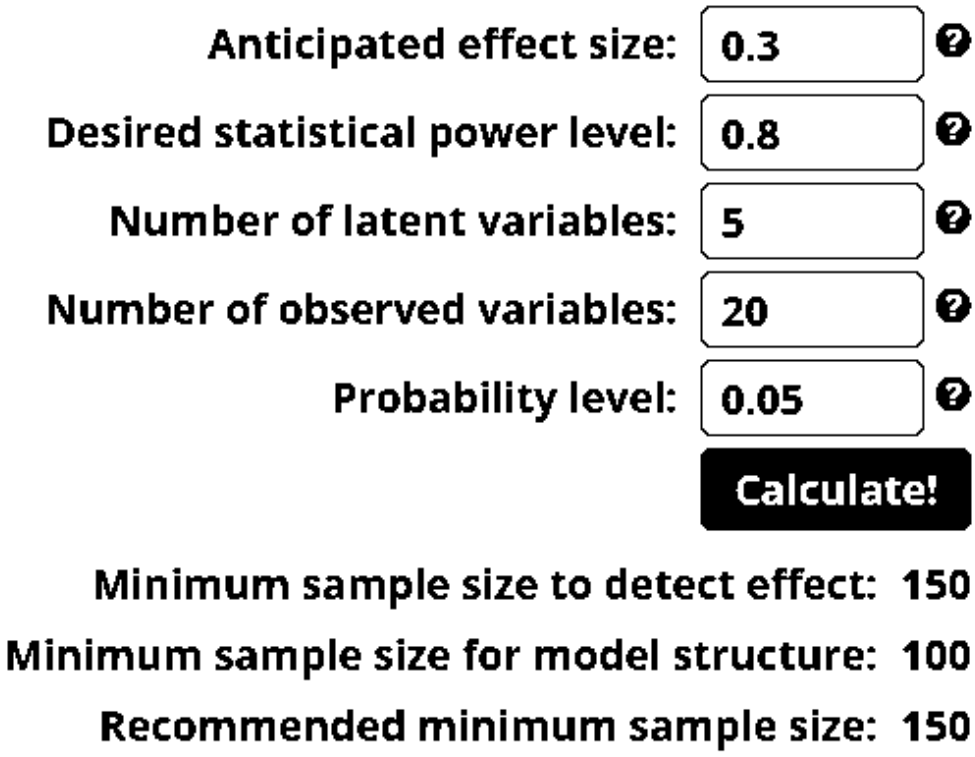

Figure 2. Sampling Result

The survey items used to measure the model's constructs in this study are included in Table 1 below. SPSS version 26 was used to display demographic and descriptive statistics. The intelligent PLS software version 4 was used for PLS-SEM analysis. The items of the questionnaire used for this study are adapted from Lai & Admiraal (2022).

The questionnaire can be accessed at https://www.wjx.cn/vj/tVyJlB3.aspx. The participants will answer the questionnaire using this link.

Table 1. Items in the Instrument of This Study.

Item number	Item	Reference
Dv	Perception of the acceptance of online courses, AOC	
1	AOC1 I can accept online learning mode in a learning law program.	
2	AOC2 I agree with the delivery of a law program using online learning mode.	
3	AOC3 I enjoy using online learning mode in learning law programs.	
4	AOC4 I prefer to use online learning mode in learning law programs.	
Iv 1	Attitude on online courses (AT)	
1	AT1: Using online learning is a good idea.	Lai & Admiraal (2022)
2	AT2: Using online learning is very suitable	
3	AT3: I like the idea of using online learning because it is very safe.	
4	AT4: Using online learning would be pleasant.	
Iv 2	Self-regulation skills (SRL)	
1	SRL1: I constantly check my understanding.	
2	SRL2: I have ways to make learning the language more attractive.	
3	SRL3: I try to sort out and address the problem when the learning environment becomes less favourable.	

doi.org/10.59021/ijebt.v1i1.11

4	SRL4: I know how to arrange time and environment to make learning more efficient and effective.
Iv 3	Self-efficacy on online courses (SE)
1	SE1: I am confident about using an online learning system.
2	SE2: Using online learning would not challenge me.
3	SE3: I would be comfortable using online tools.
4	SE4: I can complete all kinds of online learning activities.
Iv 4	Facilitating conditions for online courses (FC)
1	FC1: I get support from the learning environment that facilitates online learning.
2	FC2: I have a strong internet to support online learning.
3	FC3: I have all the facilities I need for online learning.
4	FC4: I can solve all the problems I encountered with online learning.

Table 2 shows Cronbach's Alpha value if the item is deleted. All values are above 0.7, indicating higher and stronger reliability indices. The reliability indices for all dimensions were above 0.7 and below 0.95. Thus, no issues of multicollinearity and auto-collinearity occurred. This instrument is suitable for PLS-SEM analysis later in this study.

Table 2. Reliability Indices of the Dimensions

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
DV1	63.53	345.177	.854	.976
DV2	63.38	339.932	.853	.976
IV1 item1	63.51	345.062	.813	.976
IV1.item2	63.45	347.406	.767	.977
IV1.item3	63.43	343.789	.852	.976
IV1.item4	63.49	354.062	.742	.977
IV2.item1	63.23	340.332	.877	.976
IV2.item2	63.68	344.414	.827	.976
IV2.item3	63.34	337.767	.867	.976
IV2.item4	63.51	340.024	.843	.976
IV3.item1	63.45	348.060	.796	.976
IV3.item2	63.36	343.081	.838	.976
IV3.item3	63.64	347.311	.807	.976
IV3.item4	63.60	344.436	.819	.976
IV4.item1	63.53	342.023	.837	.976
IV4.item2	63.38	341.893	.861	.976
IV4.item3	63.49	338.562	.857	.976
IV4.item4	63.53	344.023	.845	.976

FINDINGS

DESCRIPTIVE STATISTICS

Table 3 gives information about the participants' demographics, respectively, calculated in SPSS. No missing values are found for this study.

Table 3. Descriptive Statistics of the Study

doi.org/10.59021/ijebt.v1i1.11

Name	Missing	Mean	Median	Scale min	Scale max	Observed min	Observed max	Standard deviation	Excess kurtosis	Skewness
Gender	0	-	2	1	2	1	2	0.499	-1.997	-0.105
Grade:	0	-	2	1	5	1	5	1.499	-1.213	0.448
Age:	0	-	2	1	3	1	3	0.687	-0.754	0.599
University:	0	-	3	1	4	1	4	1.16	-1.286	-0.42
Number of students in your class:	0	-	2	1	4	1	4	0.814	-0.535	0.242
Online Courses Experience:	0	-	1	1	2	1	2	0.333	3.061	2.247
AOC1: I can accept online learning mode in learning law programs.	0	3.875	4	1	5	1	5	1.074	0.443	-0.954
AOC2: I agree with the delivery of a law program using online learning mode.	0	3.869	4	1	5	1	5	1.1	0.325	-0.941
AOC3: I enjoy using online learning mode in learning law programs.	0	3.708	4	1	5	1	5	1.18	-0.33	-0.695
AOC4: I prefer to use online learning mode in learning law programs.	0	3.641	4	1	5	1	5	1.273	-0.611	-0.679
AT1: Using online learning is a good idea.	0	3.736	4	1	5	1	5	1.152	-0.274	-0.717
AT2: Using online learning is very suitable.	0	3.653	4	1	5	1	5	1.23	-0.651	-0.575
AT3: It is safe to use online learning.	0	3.819	4	1	5	1	5	1.092	0.006	-0.79
AT4: Using online learning would be pleasant.	0	3.647	4	1	5	1	5	1.196	-0.468	-0.634
SRL1: I constantly check my understanding.	0	3.683	4	1	5	1	5	1.169	-0.173	-0.771
SRL2: I have ways to make learning law programs more attractive.	0	3.704	4	1	5	1	5	1.174	-0.239	-0.751
SRL3: I try to sort out and address the problem, when the learning environment becomes less favorable.	0	3.877	4	1	5	1	5	1.047	0.799	-1.043
SRL4: I know how to arrange time and environment to make learning more efficient and effective.	0	3.774	4	1	5	1	5	1.101	-0.062	-0.773
SE1: I am confident about using an online learning system.	0	3.758	4	1	5	1	5	1.133	-0.086	-0.79

doi.org/10.59021/ijebt.v1i1.11

SE2: Using online learning would not challenge me.	0	3.883	4	1	5	1	5	1.097	0.383	-0.961
SE3: I would be comfortable using online tools.	0	3.778	4	1	5	1	5	1.141	-0.18	-0.775
SE4: I am able to complete all kinds of online learning activities.	0	3.925	4	1	5	1	5	1.057	0.606	-1.011
FC1: I get support from the learning environment that facilitates online learning.	0	3.794	4	1	5	1	5	1.095	0.205	-0.85
FC2: I have a strong internet to support online learning.	0	3.883	4	1	5	1	5	1.11	0.457	-1
FC3: I have all the facilities I need for online learning.	0	3.911	4	1	5	1	5	1.109	0.853	-1.158
FC4: I am able to solve all the problems I encountered pertaining to online learning.	0	3.736	4	1	5	1	5	1.078	-0.069	-0.709

OUTER LOADINGS

Table 4 below depicts the measurement model of this study. In this research, the outer factor loadings between items and their underlying constructs calculated by Smart-PLS version 4 showed that each item had an indicator loading greater than 0.707 and with a significant value smaller than 0.050. As shown in Table 4 below, all of the factor loadings of the items to corresponding constructs are above 0.7 and significant (p-value < 0.05), which is excellent. Hence, the measurement model has indicator reliability.

Table 4. The Model with Outer Loadings

	AOC	AT	FC	SE	SRL
AOC1	0.909				
AOC2	0.909				
AOC3	0.936				
AOC4	0.896				
AT1		0.938			
AT2		0.921			
AT3		0.871			
AT4		0.917			
FC1			0.915		
FC2			0.891		
FC3			0.863		
FC4			0.888		
SE1				0.936	
SE2				0.887	
SE3				0.878	
SE4				0.852	

doi.org/10.59021/ijebt.v1i1.11

SRL1	0.919
SRL2	0.912
SRL3	0.903
SRL4	0.893

CONSTRUCT INTERNAL CONSISTENCY

Besides, construct internal consistency reliability indicates how well and to what extent the indicators of one construct measure that construct (Herzog & Tonchia, 2014). In other words, constructing internal consistency shows that the items measure the same thing. Cronbach's alpha assesses scales or test items' internal consistency or reliability (calculated in Smart-PLS version 4 in this study). In other words, the reliability of any given measurement refers to the extent to which it is a consistent measure of a concept. Cronbach's alpha is one way of measuring the strength of that consistency (Urbach & Ahlemann, 2010). The higher amount of α indicates the items have more shared covariance and probably measure the same underlying concept. According to Gefen et al. (2011), to check internal consistency, the value of Cronbach's α statistics for exploratory research should be more than 0.6, and for confirmatory research (i.e., CFA) should be more than 0.7. In addition, in CFA and SEM, internal consistency can be checked by composite reliability (CR) and should be more than 0.7 (Urbach & Ahlemann, 2010). The values of Cronbach's α and CRs are shown in Table 5. As shown in Table 5, all values of Cronbach's α and CRs are greater than 0.7, so the measurement model has internal consistency reliability.

Table 5. The Results of Internal Consistency Reliability and Convergent Validity Analysis

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	The average variance extracted (AVE)
AOC	0.933	0.933	0.952	0.833
AT	0.932	0.936	0.952	0.832
FC	0.913	0.926	0.938	0.791
SE	0.911	0.919	0.938	0.790
SRL	0.928	0.931	0.949	0.823

ASSESSMENT OF STRUCTURAL MODEL

The results of both Models with Outer Loadings and Related P-Values and the results of Internal Consistency Reliability and Convergent Validity Analysis have confirmed that the instrument developed in this study is of no question. Therefore, the measurement model is standard, and this instrument can be used to assess the structural model.

Table 6 below shows the Assessment of the Structural Model of this study. According to Table 6 below, the path coefficients between all constructs are significant (p-value < 0.01). The results show that all the independent variables significantly and positively affect dependent variables.

Table 6. Assessment of Structural Model: Path coefficients between all construct

	Path Coefficients	P Values	Explained Variance (R2)
AT -> AOC	0.324	0.000	0.586
FC -> AOC	0.112	0.104	
SE -> AOC	0.252	0.001	
SRL -> AOC	0.149	0.075	

doi.org/10.59021/ijebt.v1i1.11

GRAPHIC REPRESENTATION OF THE MODEL

Besides, as shown in Figure 3 below and Table 6 above, the explained variance of all the constructs (r square is equal to 0.586), which means 58.6% of the variance in the dependent variable construct can be explained by its predictors, which shows all the independent variables having a substantial effect on the dependent variable in this study, namely SPE.

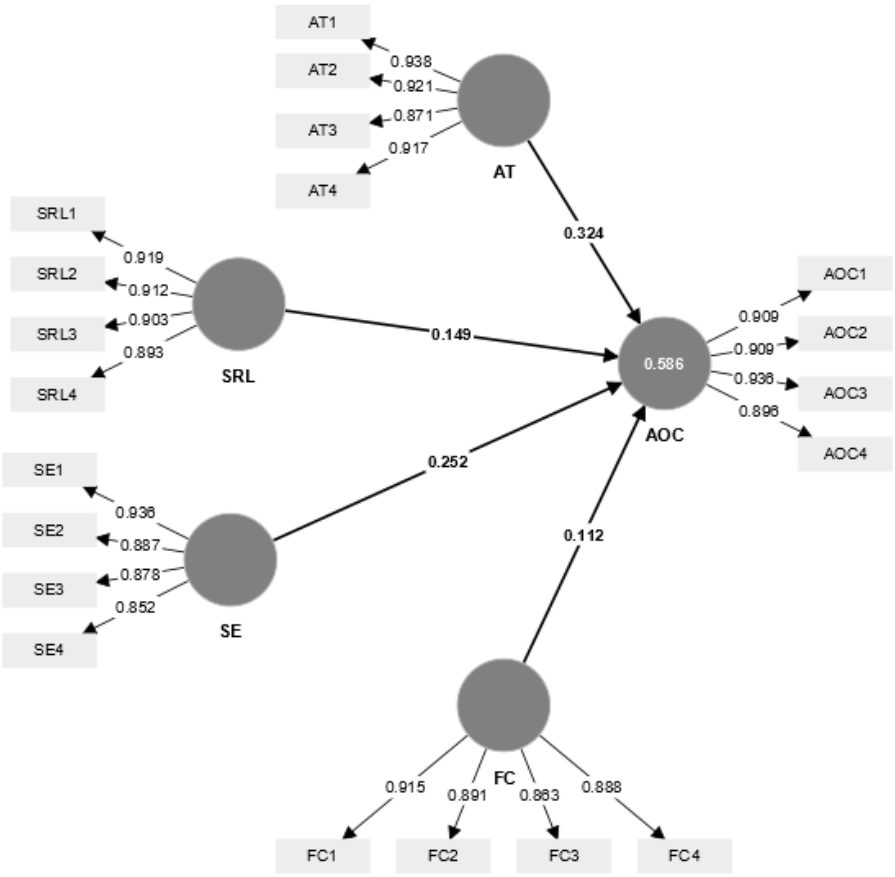

Figure 3. The Graphic Representation of the Model with Path Coefficients, and Explained Variance

HYPOTHESES TESTING

With the confirmation of Structural Model assessment results and the high value of r square, as shown in Figure 3 and Table 6 above, this study's hypotheses can be tested by running bootstrapping. Table 7 below shows the major findings on the hypotheses testing of this study.

Table 7. Hypotheses Testing

Hypothesis	Relationships	T value	P values	Decision	95% CILL	95% CIUL
H1	AT -> AOC	4.493	0.000	Accepted	0.183	0.467
H2	FC -> AOC	1.625	0.104	Rejected	-0.027	0.246
H3	SE -> AOC	3.305	0.001	Accepted	0.099	0.398
H4	SRL -> AOC	1.779	0.075	Rejected	-0.015	0.313

For hypothesis 1, the t-value is 4.493. The p-value is 0.000. There is no 0 value between 95% CI LL and 95%CI UL. Hence, hypothesis 1 is accepted. For hypothesis 2, the t-value is 1.625. The p-value is 0.104. There is a 0 value between 95% CI LL and 95%CI UL. Hence, hypothesis 2 is rejected. For hypothesis 3, the t-value is 3.305. The p-value is 0.000. There is no 0 value between 95% CI LL and

doi.org/10.59021/ijebt.v1i1.11

95%CI UL. Hence, hypothesis 3 is accepted. For hypothesis 4, the t value is 1.7The p9. P value is 0.000. There is a 0 value between 95% CI LL and 95%CI UL. Hence, hypothesis 4 is rejected. The study's results highlighted the students' positive relationships towards tasks in blended learning courses. As such, the four hypotheses confirmed in this study were:

1. Attitude to online course-significantly positively affects the perception of the acceptance of online courses.
2. Self-regulation skills do not have a significant positive effect on the perception of the acceptance of online courses.
3. Self-efficacy has a significant positive effect on the perception of the acceptance of online courses.
4. The facilitating condition does not significantly affect the perception of the acceptance of online courses.

DISCUSSION AND CONCLUSION

The study has confirmed that attitude toward online courses (AT) and self-efficacy in online courses (SE) significantly positively affected the acceptance of online courses. However, the effects of self-regulation skills (SRL) and facilitating conditions for online courses (FC) have to be confirmed in further studies. Therefore, efforts have to be made on these four factors in heightening the level of Acceptance of Online Courses among students.

The current study intensifies that attitudes are often related to intrinsic and extrinsic motivation in online learning (Ryan & Deci, 2020). The motivation to learn independently in online learning is a crucial attitude that learners should have (Purnomo et al., 2019). Attitudes decide online learning readiness (Hergüner et al., 2020). Attitudes also correspond to the success rate in online learning (Cinkara & Bagceci, 2013). Therefore, in the study process, various methods have to do in instilling more positive attitudes among the students ensuring the skills and knowledge gained in the online learning environment are on par with face-to-face mode, ensuring the compliance and completion of the course syllabus as in the curriculum design, etc.

Besides, self-regulated learning skills are necessary for success in learner-paced open and distance learning. Therefore, measuring self-regulation skills in an online learning environment is essential (Kocdar et al., 2018). Some ideas that will help improve students' self-regulated learning skills include guiding learners' self-beliefs, goal setting, and expectations regularly and promoting reflective dialogue through instructor-student meetings. At the same time, corrective feedback should be provided by academic advisors.

Because individual characteristics vary significantly, self-efficacy is a vital variable regarding technology usage (Mahdavian et al., 2016; Aldholay et al., 2018). The success model with self-efficacy needs to be studied as self-efficacy is an influential key to users' skills in resulting success in the online learning environment. Some suggestions about this aspect may include providing counselling sessions, seminars on the sharpening of self-efficacy, having gatherings and meetings or special events by inviting motivators or successful students to share their personal experiences on enhancing self-efficacy, etc.

Lastly, facilitating conditions are defined as the "degree to which an individual believes an organizational and technical infrastructure exists to support the use of the system" (Bervell & Arkorful, 2020). The construct is defined in this study as the degree to which course tutors believe that there is the existence and availability of ICT infrastructure, technical support, institutional policy and enthusiastic leadership to support the use of the LMS of educational institutions in supporting online learning students' perceived availability of support from the learning environment that facilitates online learning. With these, educational resources and technical support are essential. Providing channels for students to help improve their needs for facilitating conditions is also handy.

doi.org/10.59021/ijebt.v1i1.11

Table 8 below summarizes the efforts and suggestions in upholding the four aspects that will positively affect the Acceptance of Online Courses. These efforts should be implemented to ensure that the level of Acceptance of Online Courses among learners is heightened.

Table 8. Efforts and suggestions in upholding the four aspects that will bring positive effects on career adapt abilities

Factor	Efforts and suggestions
Attitude on online courses (AT)	Ensuring the skills and knowledge gained in online learning environment are on par with face-to-face mode ensuring the compliance and completion of course syllabus as in the curriculum design.
Self-regulation skills (SRL)	Improving students' self-regulated learning skills include guiding learners' self-beliefs, goal setting, and expectations regularly, as well as promoting reflective dialogue through instructors-students meeting. At the same time, corrective feedback should be provided by academic advisors.
Self-efficacy on online courses (SE)	Providing counselling sessions, seminars particularly on the sharpening of self-efficacy, having gathering and meeting or special events by inviting motivators or successful students to share their personal experiences on enhancing self-efficacy, etc.
Facilitating conditions for online courses (FC)	Educational resources and technical support are essential. Providing channels for students for help in improving their needs of facilitating conditions are also handy.

There are some limitations in this study, and some future suggestions are proposed to tackle these limitations. Similar to prior studies, the current study is also prone to some limitations. First, data was collected through convenience sampling, which might restrict the generalizability of results. For future studies, large samples and with stratified sampling method can be employed to increase the generalizability of the findings.

Second, there were only four factors involved in this study. For future studies, more determinants can be added to produce a more fruitful understanding for developing a better and more comprehensive model, which includes a multitude of factors in determining the enhancing the level of acceptance of online courses among the students.

Third, the current study took only the effects of four selected independent variables on the dependent variable. Moderators and mediators that will affect the relationships studied in this study should be considered for future studies to yield a greater understanding of the effects of these moderators and mediators on the relationships studied.

Fourth, this study employed the basic method of PLS-SEM in the assessment process. Future studies should employ other more advanced techniques in PLS-SEM analysis, such as assessing the common method variance (construct level correction), using multi-group analysis (MGA) in evaluating the moderating factors affecting the relationships, etc.

In conclusion, this study has verified that attitude toward online courses (AT), Self-regulation skills (SRL), self-efficacy on online courses (SE), and facilitating conditions for online courses (FC) have significant positive effects on acceptance of online courses among the students. Thus, instructors have to ensure that various strategies and suggestions about the vital four factors examined in this study should be carried out to prepare the students by enhancing their acceptance of online courses and making learning a success.

REFERENCES

Aldholay, A., Osama Isaac, Zaini Abdullah, Rasheed Abdulsalam, Ahmed Hamoud Al-Shibami, (2018) , "An extension of Delone and McLean IS success model with self-efficacy: Online learning usage in Yemen",

The International Journal of Information and Learning Technology, Vol. 35 No. 4, pp. 285-304. https://doi.org/10.1108/IJILT-11-2017-0116

Lekissa Alemayehu & Hsiu-Ling Chen (2021). The influence of motivation on learning engagement: the mediating role of learning self-efficacy and self-monitoring in online learning environments. *Interactive Learning Environments,* DOI: 10.1080/10494820.2021.1977962

Ali, W. (2020). Online and Remote Learning in Higher Education Institutes: A Necessity in Light of COVID-19 Pandemic. *Higher Education Studies*, 10, 16-25. https://doi.org/10.5539/hes.v10n3p16

Bervell, B., Arkorful, V. (2020). LMS-enabled blended learning utilization in distance tertiary education: establishing the relationships among facilitating conditions, voluntariness of use and use behaviour. *Int J Educ Technol High Educ* 17, 6 (2020). https://doi.org/10.1186/s41239-020-0183-9

Carter Jr, R.A., Rice, M., Yang, S. and Jackson, H.A. (2020), "Self-regulated learning in online learning environments: strategies for remote learning", *Information and Learning Sciences,* Vol. 121 No. 5/6, pp. 321-329. https://doi.org/10.1108/ILS-04-2020-0114

Cinkara, E., & Bagceci, B. (2013). Learners' attitudes towards online language learning; and corresponding success rates. *Turkish Online Journal of Distance Education,* 14(2), 118–130. https://doi.org/10.17718/tojde.82980

Daniel, S.J. Education and the COVID-19 pandemic. *Prospects 49*, 91–96 (2020). https://doi.org/10.1007/s11125-020-09464-3

Ferrer, J., Ringer, A., Saville, K. et al. (2022). Students' motivation and engagement in higher education: the importance of attitude to online learning. *High Educ* 83, 317–338 (2022). https://doi.org/10.1007/s10734-020-00657-5

Gefen, D; Straub, Detmar W.; and Rigdon, Edward E.. (2011). An Update and Extension to SEM Guidelines for Admnistrative and Social Science Research, *MIS Quarterly*, Vol. 35, No. 2 (June 2011), pp. iii-xiv (12 pages). https://doi.org/10.2307/23044042

Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The difference between emergency remote teaching and online learning. *EDUCAUSE Review*. https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teachingand-online-learning

Kocdar, S., Karadeniz, A., Bozkurt, A. & Buyuk, K. (2018). Measuring Self-Regulation in Self-Paced Open and Distance Learning Environments. *International Review of Research in Open and Distributed Learning*, 19(1). https://doi.org/10.19173/irrodl.v19i1.3255

Kuo, Y. C., Walker, A. E., Schroder, K. E. E., & Belland, B. R. (2014). Interaction, Internet self-efficacy, and self-regulated learning as predictors of student satisfaction in online education courses. *Internet and Higher Education*, 20, 35–50. https://doi.org/10.1016/j.iheduc.2013.10.001

Lai Y., Saab N. & Admiraal W., University students' use of mobile technology in self-directed language learning: Using the Integrative Model of Behavior Prediction, *Computers & Education (2022)*, doi: https://doi.org/10.1016/j.compedu.2021.104413.

Mahdavian, M., Wingreen, S.C. and Ghlichlee, B. (2016), The influence of key users' skills on ERP success, *Journal of Information Technology Management*, Vol. XXVII No. 2, pp. 48-64. https://www.researchgate.net/publication/305751092_The_influence_of_key_users'_skills_on_ERP_success

Michael P. A. Murphy (2020). COVID-19 and emergency eLearning: Consequences of the securitization of higher education for post-pandemic pedagogy, *Contemporary Security Policy*, 41:3, 492-505, DOI: 10.1080/13523260.2020.1761749

Purnomo, A., Kurniawan, B., & Aristin, N. (2019). Motivation to learn independently through blended learning, *Proceedings of the 6th International Conference on Educational Research and Innovation (ICERI 2018) , Advances in Social Science, Education and Humanities Research*, 330, 261–264. https://doi.org/10.2991/iceri-18.2019.55

Ringle, C. M., Wende, S., and Becker, J.-M. (2022). "SmartPLS 4." Oststeinbek: SmartPLS GmbH, http://www.smartpls.com

Ryan, R. M., & Deci, E.L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: definitions, theory, practices, and future directions. *Contemporary Educational Psychology*, 61, https://doi.org/10.1016/j.cedpsych.2020.101860

Urbach, N., & Ahlemann, F. (2010) Structural equation modeling in information systems research using partial least squares. *Journal of Information Technology Theory and application*, 11(2), 5-40.

https://www.researchgate.net/publication/228467554_Structural_equation_modeling_in_information_systems_research_using_Partial_Least_Squares

Vujica Herzog, N., & Tonchia, S.(2014). An Instrument for Measuring the Degree of Lean Implementation in Manufacturing. *Strojniški vestnik - Journal of Mechanical Engineering*, 60(12), 797-803. doi:http://dx.doi.org/10.5545/sv-jme.2014.1873

doi.org/10.59021/ijebt.v1i1.11