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EARLY VIEW

Factors Affecting Behavioral Intention to Continuously Adopt E-Learning: The Case of Myanmar and Vietnamese University Students

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Abstract. This study aims to formulate a new theoretical concept based on the Technology Acceptance Model (TAM) and Trust Transfer Theory (TTT) in the e-learning context by using 498 datasets collected from randomly selected Myanmar and Vietnamese university students via an online survey. In this study, a deductive reasoning quantitative research approach was applied, utilizing exploratory factor analysis (EFA), confirmatory factor analysis (CFA), and structural equation modeling (SEM). According to the analysis results, perceived usefulness, trust in the university, and trust in e-learning significantly affect behavioral intention, but the effect of perceived ease of use is statistically insignificant. Perceived ease of use has a significant effect on perceived usefulness. Furthermore, major factors of TAM, perceived usefulness and perceived ease of use, have a significant effect on trust in the university and trust in e-learning, respectively. The findings of this study reveal that university trust can transform into e-learning trust. In addition, academic level significantly moderates the direct effects of perceived usefulness, perceived ease of use, trust in the university, and trust in e-learning on behavioral intention. The emergence of this new theoretical concept extends not only the e-learning literature but also provides insights for educational institutions.

Keywords: technology, trust, post pandemic, e-learning

INTRODUCTION

In early 2020, due to the COVID-19 coronavirus outbreak, many nations across the globe declared a state of emergency. Authorities in various countries launched efforts such as lockdowns of areas, prohibiting crowds, and limiting public assemblies. Likewise, when the COVID-19 virus reached Myanmar and Vietnam in early 2020, the local governments imposed restrictions and shut down all educational

institutions. As a consequence, conducting daily routines through online platforms became mandatory and the only viable option for every party and institution. The local governments forced people to adopt online platforms for activities such as business meetings, buying groceries, entertainment events, and teaching and learning. This led to a change in technical infrastructure and institutional practices, especially in the education sector (Kamalasena & Sirisena, 2021).

As a result, the adoption of e-learning (EL) has become inevitable for educators around the globe (Phiakoksong et al., 2021). Despite EL being cheaper, easier, and more flexible, many students do not use it regularly. Ramadiani et al. (2021) stated that technological and institutional aspects are important factors for online learning success. EL overcomes conventional on-ground barriers and supports wide boundaries for teaching and learning activities by minimizing the spread of COVID-19 infection (Salmani et al., 2022). Nevertheless, using EL has become an inescapable substitute practice for universities and schools worldwide because of COVID-19 interruptions (Radha et al., 2020).

In 2018, Myanmar was listed as one of the least developed nations in the world and faced various challenges, including communication technology infrastructure in the higher education environment. Myanmar recognized this situation and created opportunities to build up its telecom infrastructure, leading Myanmar students to experience an innovative learning system in higher education (The & Usagawa, 2018). The growth rate of internet users in Vietnam before the pandemic was similar to that of neighboring countries in the region. However, utilizing internet technology for teaching and learning in higher education, such as universities, was new to Vietnam. Maheshwari (2021) explicitly stated that only one-third of the students in Vietnam had prior experience with e-learning before the pandemic. According to previous literature, the majority of students from both Myanmar and Vietnam were not ready for online education. The nascent online learning system may be challenging for students, especially for those who are accustomed to the conventional education system (Nguyen et al., 2022; Su et al., 2020).

However, the COVID-19 pandemic encouraged the adoption of e-learning (EL) in many countries, including Myanmar and Vietnam, but it raised the question of students' continuous use of EL after the pandemic. Previous researchers explicitly stated that implementing EL platforms cannot succeed by focusing only on technological aspects (Maheshwari, 2021; The & Usagawa, 2018). Students' decisions to continually engage with EL can be influenced by several factors, such as technology acceptance and institutional policies (Dramani et al., 2022). The long-term success of EL requires consideration of not only users' perspectives but also those of educational authorities. Additionally, EL must gain the confidence of users to maintain the sustainability of the EL ecosystem (Saleh et al., 2022). Therefore, the major objective

of this study is to investigate what factors motivate university students to continue using EL during the post-pandemic period. This study will provide insights for universities about the motivations for the continuous adoption of EL in the post-pandemic period by answering the following research questions:

RQ1: What is the role of technology for continuous EL adoption in Myanmar and Vietnam?
RQ2: What is the role of online trust and offline trust for continuous EL adoption in Myanmar and Vietnam?
RQ3: How does technology influence the level of trust in EL context in Myanmar and Vietnam?

LITERATURE REVIEW

E-learning (EL) can be defined as the learning and teaching activities that enable the delivery of course materials digitally to learners using information and communication technology (ICT), such as the internet (Buana & Linarti, 2021). ICT creates active distance education systems for both teachers and students. Prioritizing the online education system is a major revolution in the academic industry (Pham et al., 2021). The challenges, difficulties, and restrictions of the pandemic period were overcome by using online learning as an aid. Online education channels provide several benefits, such as well-organized course materials, improved student interaction, increased flexibility among participants, convenient assignment submission, and instant responses to submissions (Nayak et al., 2022).

Even though EL usage rapidly increased, especially in the education sector during the pandemic, EL technology has not been evenly distributed among all institutions. The use of EL can enhance the performance of learners, which will affect the accomplishment of academic goals and improve the learning experience. Video conferencing platforms, virtual reality (VR), learning management systems (LMS), and social media can all be considered parts of EL (Alassaf, 2022). Majid and Shamsudin (2019) confirmed that using VR in the classroom makes activities more effective, directly improving the attention and motivation of learners. Additionally, social media platforms such as YouTube, LinkedIn, and Facebook have become prominent, and many educational institutions are increasingly initiating academic activities through them. As a result, learners and educators have perceived the potential advantages of using social media technology as a tool for collaborative learning (Habes et al., 2018).

Arguably, EL can be identified in two types: synchronous and asynchronous (Desai et al., 2008). Synchronous e-learning involves instructors and learners conducting educational activities simultaneously through the internet (e.g., Zoom, MS Teams). In asynchronous e-learning, instructors and learners access

and manage course materials at different times (e.g., Blackboard Learn, Moodle). A significant advantage of EL is that it enables institutions to perform school activities through virtual campuses without physical interaction. Moreover, EL can significantly reduce energy, psychological, and monetary costs for learners and institutions compared to traditional learning methods (Bordia & Lam, 2008).

Also, educational institutions such as universities around the world are changing and converting learning material delivery methods by using LMS instead of traditional methods. An LMS is a web-based software that allows students and teachers to manage, upload, download, and deliver multimedia learning resources. Yen et al. (2018) suggested that educators should provide a decent teaching-learning ecosystem by adopting an appropriate LMS. Furthermore, LMS can be used for collaboration and connection between learners and instructors (Fearnley & Amora, 2020). LMS has been popular among higher education sectors since the 1990s and has rapidly become a requisite segment of the learning and teaching environment, especially during the COVID-19 pandemic (Ngafeeson & Gautam, 2021).

CONCEPTUAL AND THEORETICAL BACKGROUND

Technology aspects are becoming increasingly important due to the uncertainty surrounding the acceptance of information systems such as EL. The Technology Acceptance Model (TAM) is a widely used and influential theoretical research model (see Figure 1) designed to predict and explain user acceptance of individual technologies. According to previous literature, TAM was originally proposed by Davis (1989) and is extensively considered a comprehensive research model for forecasting EL usage during the pandemic period (Alassaf, 2022; Saleh, Nat, & Aqel, 2022; Buana & Linarti, 2021; Lazim et al., 2021; Kusumadewi et al., 2021). The key predictors from TAM, perceived usefulness, and perceived ease of use, are employed in this study as representatives of technology. On the other hand, Dramani et al. (2022) stated that students will continuously use EL because they perceive it to be beneficial and easy to use.

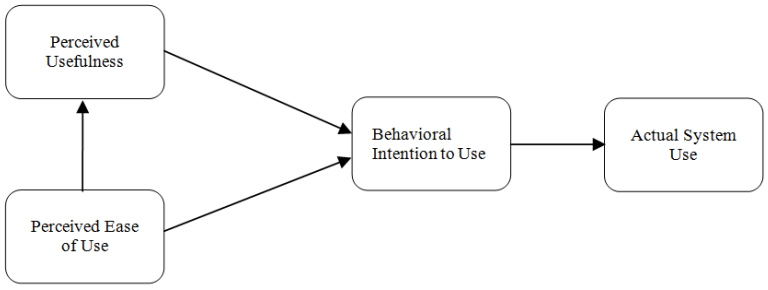

Figure 1: Technology Acceptance Model

Stewart (2003) introduced the trust transfer theory (TTT) by explaining the principle of the relationship between the trustee and trusted third parties. According to TTT, if an entity is linked with another entity, trust in the first entity will be transferred to trust in the other entity in an online context (see Figure 2) as stated by Lim et al. (2006). Similarly, the theory simply explains that tangible trust, such as offline trust, can be transferred to intangible trust, such as online trust. According to Lu and Wang's study (2022), institutional trust can be transferred to the platform within the same environment. This implies that highly trusted institutions can earn trust for their online services without difficulty. Additionally, Giovannini et al. (2015) asserted that offline trust has a significant positive effect on online trust, suggesting that every online service requires preliminary offline trust. Although TTT has been widely employed in the study of other online contexts (Zhao et al., 2019), it is rarely used in the EL context. Thus, the present study will examine how trust in the university can enhance trust in EL based on TTT.

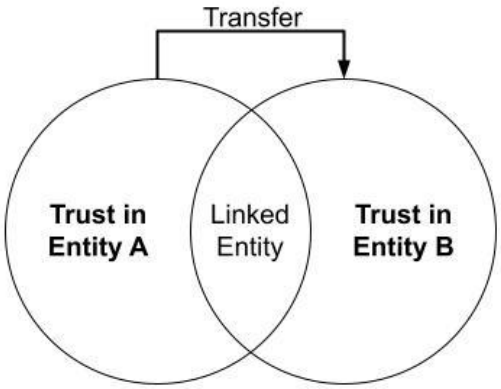

Figure 2: The Concept of Trust Transfer Theory

HYPOTHESES AND RESEARCH MODEL DEVELOPMENT

Perceived Ease of Use (PEOU)

Perceived ease of use (PEOU) is a major independent factor in TAM used to evaluate the ease of using a certain technology and the degree to which an individual considers using it effortless (Davis, 1989). Several previous studies (Kusumadewi et al., 2021; Buana & Linarti, 2021; Khafit et al., 2020) have considered PEOU an essential perspective for better understanding the technological environment. Lazim et al. (2021) stated that PEOU can influence students' acceptance of EL as a new medium for their learning process. When learners realize that EL can be easy to use for their learning process, it can lead to positive outcomes for educational institutions (Taat & Francis, 2020). The easier EL is to interact with, the higher the potential for continuous use of EL by students. This leads to the following hypotheses:

H1: Perceived ease of use positively influences perceived usefulness.

H2: Perceived ease of use positively influences trust in E-learning.
H3: Perceived ease of use positively influences trust in university.
H4: Perceived ease of use positively influences behavioral intention.

Perceived Usefulness (PU)

Perceived usefulness is one of the major determinants used to measure individuals' understanding that technology can enhance the performance of relevant tasks (Davis, 1989). If technology becomes useful in daily life, there will be a positive attitude toward technology adoption, and individuals' reliance on technology will also transform positively (Kusumadewi et al., 2021). Similarly, Kamalasena and Sirisena (2021) stated that if EL can assist students in enhancing their learning outcomes, there is a feasibility that they will continuously use EL. Hassan (2021) asserted that when students find that learning through EL is quick and convenient, they perceive EL as useful. The study by Taat and Francis (2020) indicated that an understanding of the effectiveness and efficacy of EL positively affects the acceptance of EL. Thus, the following hypotheses can be formulated for the present study:

H5: Perceived usefulness positively influences trust in E-learning.
H6: Perceived usefulness positively influences trust in university.
H7: Perceived usefulness positively influences behavioral intention.

Trust in university (TRU)

According to Stewart (2003), an institution is linked to its website because users can perceive the associated entity between the institution and the website. Similarly, institutional trust can generate a peculiar trust that is linked with institutional structure and contribute to specific processes and activities (Lu et al., 2016). Trust plays a critical role between online service providers and users' intention to use, and lack of trust in online service providers is a major issue causing many users to hesitate in conducting online transactions (Dramani et al., 2022). Tri and Loc (2020) argued that users are willing to accept vulnerability when engaging in online activities if the institution is trustworthy. It is crucial that students believe that EL is safe, secure, and reliable, and that they have faith in the institution and system administrators regarding their privacy, as this is vital for their use and continuous engagement with EL (Dramani et al., 2022). Thus,

H8: Trust in university positively influences trust in E-learning.

H9: Trust in university positively influences behavioral intention.

Trust in E-Learning (TREL)

Trust is an important parameter to consider when engaging in online applications, as it can reduce the extent of risk and uncertainty (Wang, 2014). Salloum et al. (2019) explicitly stated that EL is perceived as less reliable than conventional learning methods based on individuals' assessment results and feedback. Buana & Linarti (2021) advocated that a certain level of trust in EL can be developed if it is perceived as useful and easy to use. Trust is critical for the continuous intention to use EL systems, as learners may fear that their personal information could be insecure. Moreover, trust is a powerful antecedent of the intention to use online applications, and there is a positive relationship between trust and the intention to continue using them (Dramani et al., 2022). It can be assumed that higher trust in EL is associated with a greater intention to use. Thus, the following hypothesis can be proposed:

H10: Trust in E-learning positively influences behavioral intention.

Behavioral Intention (BI)

Several previous studies have investigated users' online behavior by employing the Technology Acceptance Model (TAM). TAM has been examined by many researchers and proven to be appropriate as a theoretical model for the adoption of EL (Alassaf, 2022; Saleh et al., 2022; Buana & Linarti, 2021; Khafit et al., 2020). Additionally, TAM has received widespread support for validating users' behavioral intentions toward online learning environments (Lazim et al., 2021; Kusumadewi et al., 2021). Moreover, numerous researchers have asserted the effectiveness of TAM components in identifying users' motivations and beliefs to adopt or reject certain technologies (Davis, 1989). The two major factors from TAM, perceived usefulness and perceived ease of use, along with university trust and e-learning trust as additional factors, are hypothesized to affect students' behavioral intention to continue adopting EL. In this study, academic level will be considered as a moderator for the hypothesized direct effects on behavioral intention. Therefore:

H11(a): Academic level is moderating the relationship between PU and BI.

H11(b): Academic level is moderating the relationship between PEOU and BI.

H11(c): Academic level is moderating the relationship between TRU and BI.

H11(d): Academic level is moderating the relationship between TREL and BI.

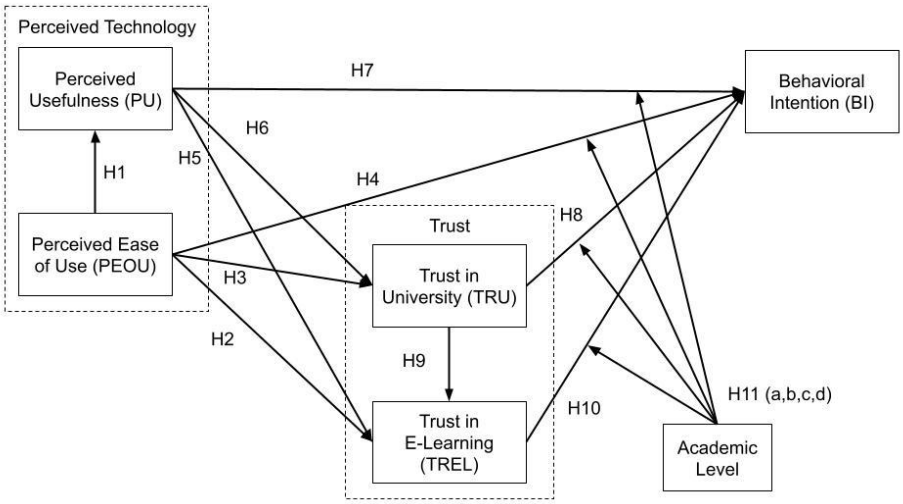

Figure 3: The Proposed Structural Model with Hypotheses

Table 1: Hypotheses with literature support

	Hypotheses	Literature Support
H1	PEOU → PU	(Lazim et al., 2021)
H2	PEOU → TREL	(Ejdys, 2018)
H3	PEOU → TRU	(Taat & Francis, 2020)
H4	PEOU → BI	(Kusumadewi et al., 2021)
H5	PU → TREL	(Ejdys, 2018)
H6	PU → TRU	(Taat & Francis, 2020)
H7	PU → BI	(Mohammadi, 2015)
H8	TRU → BI	(Sarosa & Setyowati, 2022)
H9	TRU → TREL	(Lim et al., 2006)
H10	TREL → BI	(Dramani et al., 2022)
H11(a)	Academic level is moderating the relationship between PU and BI.	Exploratory
H11(b)	Academic level is moderating the relationship between PEOU and BI.	Exploratory
H11(c)	Academic level is moderating the relationship between TRU and BI.	Exploratory
H11(d)	Academic level is moderating the relationship between TREL and BI.	Exploratory

RESEARCH METHODS

This study adopts a deductive research approach and applies a cross-sectional quantitative method. Using the survey technique is an effective way to estimate the attitudes of respondents from different social groups (Neuman, 2006). The target respondents in this study were students from higher education levels with moderate digital literacy from two countries with different cultures. Therefore, an online survey was employed as the measurement tool for the study. A self-administered questionnaire was created based on theoretical concepts and previous literature (refer to Table 2) and implemented using Google Forms to collect the data.

The questionnaire consisted of two sections: the demographic profile of respondents and indicators of the constructs, using a five-point Likert scale (see Appendix A). Additionally, there was a filter question in the survey form to verify whether participants had previously used EL platforms at their university. In this study, EL is defined as engaging in learning activities through the internet. The questionnaire items were translated into the respective local languages, Burmese and Vietnamese, and the accuracy of translation was validated by five local scholars for each language.

For Myanmar students, the survey was distributed through email and social media official pages of Myanmar universities. For Vietnamese students, the survey was conducted at "Dong A University" and "University of Greenwich" in Vietnam through the admission department of respective universities. Convenience sampling technique was employed for this study. All the respondents in this study were not offered any incentives for their participation and the identity of participants were kept as anonymity.

The survey was conducted from October to December of 2022. A total of 552 university students responded, 293 were Myanmar students, and 259 were Vietnamese students. Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were taken to ensure the validity and reliability of the questionnaire items. And proposed hypotheses (Table 1) were examined by structural equation modeling (SEM) technique.

Table 2: Questionnaire items with literature support

Theories	Concepts	Constructs	Indicators	Literature Support
TTT	Trust	Trust in University	TRU1, TRU2, TRU3, TRU4	(Kaasa & Andriani, 2022)

		Trust in EL	TREL1, TREL2, TREL3	(Dramani et al., 2022)
TAM	Technology	Perceived Usefulness	PU1, PU2, PU3, PU4	(Al-hawari & Mouakket, 2010)
		Perceived Ease of Use	PEOU1, PEOU2, PEOU3	
		Behavioral Intention	BI1, BI2, BI3, BI4	(Dramani et al., 2022)

DATA ANALYSIS AND RESULTS

Demographic Profile

The data were collected from university students from Myanmar and Vietnam who have prior experience in using EL platforms. A total of 552 university students participated and 506 participants have prior experience in using EL platforms. Therefore, 46 datasets were not considered for data analysis. After removing eight outliers (1.6%) for better data quality, the number of datasets down to 498. In the dataset (Table 3), 265 are students from Myanmar (53.2%) and 233 are from Vietnam (46.8%). The dataset consists of 191 (38.4%) males, 307 (61.6%) females, 201 (40.4%) undergraduate students, and 297 (59.6%) graduate study students.

Table 3: The analysis result of demographic profile

Demographic profile		Frequency (N = 498)	Percentage
Country	Myanmar	265	53.2
	Vietnam	233	46.8
Gender	Male	191	38.4
	Female	307	61.6
Academic Level	Undergraduate	201	40.4
	Graduate Study	297	59.6

Exploratory Factor Analysis (EFA)

During the exploratory factor analysis (EFA), data sampling size adequacy was measured by Kaiser-Meyer-Olkin (KMO) value, which was obtained at 0.945; therefore, the data sampling size is suitable for factor analysis (Hair et al., 2010). According to the EFA, the validity of questionnaire items was examined with

principal component analysis (PCA) and the varimax rotation method. The analysis results indicated that the factor loading values of all indicators are exceeded 0.5 and associated with their respective constructs (Table 4). Thus, the validity of five factors with eighteen indicators was established (Kline, 2011).

Table 4: The analysis result of factor-cross loading

	Perceived Usefulness	Trust in University	Behavioral Intention	Perceived Ease of Use	Trust in E-Learning
PU2	.794	.223	.329	.255	.098
PU3	.792	.216	.233	.206	.234
PU4	.790	.187	.240	.210	.195
PU1	.762	.234	.301	.221	.134
TRU4	.198	.829	.214	.166	.211
TRU2	.243	.806	.127	.159	.260
TRU3	.166	.802	.213	.150	.235
TRU1	.204	.744	.311	.225	.080
BI3	.283	.171	.804	.199	.262
BI4	.283	.245	.793	.159	.200
BI2	.365	.340	.688	.215	.172
BI1	.395	.352	.653	.220	.178
PEOU1	.191	.201	.208	.811	.157
PEOU2	.254	.195	.180	.781	.229
PEOU3	.272	.177	.148	.718	.290
TREL3	.149	.305	.187	.249	.756
TREL2	.258	.262	.315	.293	.712
TREL1	.280	.310	.280	.378	.625

Factor Correlation Analysis

The relationship between demographic variables and factors was tested by using Pearson correlation in SPSS software. According to the analysis results of Pearson correlation (Table 5), all the factors are moderately correlated with each other, while PU and BI are highly correlated at the 0.01 level. The academic level has a correlation with PU, TRU, and BI at the 0.01 level. Further, the country has significant correlation with all the factor except TRU. And the gender correlating with PU, TRU and BI at the 0.05 level.

Table 5: The analysis result of demographic and factors correlation

	Demographic			Factors				
	Country	Gender	Academic	PU	PEOU	TREL	TRU	BI
Country	1							
Gender	.121**	1						
Academic	.410**	.083	1					
PU	.107*	.104*	.257**	1				
PEOU	-.109*	.028	.094*	.613**	1			
TREL	-.207**	.062	.052	.614**	.693**	1		
TRU	.053	.093*	.166**	.574**	.535**	.661**	1	
BI	.111*	.108*	.249**	.735**	.585**	.678**	.647**	1

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

*. Correlation is significant at the 0.05 level (2-tailed).

Confirmatory factor analysis (CFA)

According to the confirmatory factor analysis (CFA), standardized regression weight of all the indicators was calculated by constructing a measurement model (Appendix B) in AMOS software. First, average variance extracted (AVE) and composite reliability (CR) of respective factors were calculated based on the values of standardized regression weight. Second, all the values of standardized regression weight and AVE exceed 0.5, and all the values of CR are greater than 0.7. In addition, Cronbach's Alpha values for each factor were measured for reliability and all the values exceed 0.7. Therefore, convergent validity and reliability of measurement items were confirmed (Table 6).

Table 6: The analysis result of convergent validity and reliability

Factors	Indicators	Std. Regression Weight	AVE	CR	Cronbach's Alpha
Perceived Usefulness (PU)	PU1	0.863	.757	.926	.925
	PU2	0.918			
	PU3	0.861			
	PU4	0.836			
Perceived Ease of Use (PEOU)	PEOU1	0.800	.660	.853	.852
	PEOU2	0.844			
	PEOU3	0.792			
Trust in University (TRU)	TRU1	0.795	.725	.913	.911
	TRU2	0.851			

Trust in E-Learning (TREL)	TRU3	0.858	.701	.875	.867
	TRU4	0.899			
	TREL1	0.883			
	TREL2	0.875			
	TREL3	0.747			
Behavioral Intention (BI)	BI1	0.871	.748	.922	.922
	BI2	0.873			
	BI3	0.865			
	BI4	0.850			

Analysis result of discriminant validity

As a part of CFA, discriminant validity was examined following the recommendation of Fornell and Larcker (1981). In Table.8, the diagonal values (the square root of AVE) for each factor in the highlighted cells are greater than its correlation value with other factors that approves discriminant validity of the measurement model.

Table 7: The analysis result of discriminant validity

Factors	PU	PEOU	TRU	TREL	BI
Perceived Usefulness	**0.870**				
Perceived Ease of Use	0.686	**0.812**			
Trust in University	0.613	0.597	**0.851**		
Trust in E-Learning	0.684	0.799	0.727	**0.837**	
Behavioral Intention	0.797	0.661	0.698	0.763	**0.865**

Model fit indices

The values of GFI (0.923), AGFI (0.895), NFI (0.951), CFI (0.967), and CMIN/DF (2.975) indicate that the proposed research model provides a good fit to the collected data while RMSEA (0.063) indicates acceptable fit (Table 8).

Table 8: The analysis result of model-fit indices

Fit Indices	Good Fit	Acceptable Fit	Research Model	Result
CMIN/DF	< 3.0	< 5.0	2.975	Good Fit
GFI	> 0.90	> 0.80	0.923	Good Fit

AGFI	> 0.85	> 0.80	0.895	Good Fit
NFI	> 0.95	> 0.90	0.951	Good Fit
CFI	> 0.95	> 0.90	0.967	Good Fit
RMSEA	< 0.05	< 0.08	0.063	Acceptable Fit

Direct effects analysis

All the direct effects were examined as presented in Figure 3 and the analysis results are concluded in Table 9. The analysis result indicated a large positive effect of perceived ease on perceived usefulness (β=0.686, $p<0.001$). Therefore, H1 was validated. Also, perceived ease of use has a significant positive effect on trust in e-learning (β=0.507, $p<0.001$) and trust in university (β=0.333, $p<0.001$). Thus, H2 and H3 were statistically supported. Perceived usefulness positively affected trust in e-learning (β=0.122, $p<0.014$) and trust in university (β=0.384, $p<0.001$), which means that H5 and H6 were accepted. Perceived usefulness (β=0.493, $p<0.001$), trust in university (β=0.187, $p<0.001$), and trust in e-learning (β=0.335, $p<0.001$) with regard to the EL platform, all evidenced a positive effect on behavioral intention to continuously adopt EL. Therefore, H7, H8 and H10 were approved. Furthermore, trust in university (β=0.350, $p<0.001$) positively affected trust in e-learning. Thus, H9 was supported. The finding, however, revealed that H4 was rejected. Therefore, perceived ease of use has an insignificant direct effect on behavioral intention to continuously adopt EL.

Table 9: The analysis result of direct effects

Hypothesis	Direct Effects	Std. Effect (β)	p-value	t-value	Result
H1	PEOU → PU	0.686	< 0.001	14.000	Supported
H2	PEOU → TREL	0.507	< 0.001	8.788	Supported
H3	PEOU → TRU	0.333	< 0.001	5.394	Supported
H4	PEOU → BI	-0.057	0.370	-0.544	Rejected
H5	PU → TREL	0.122	0.014	2.462	Supported
H6	PU → TRU	0.384	< 0.001	6.441	Supported
H7	PU → BI	0.493	< 0.001	10.083	Supported
H8	TRU → BI	0.187	< 0.001	3.894	Supported
H9	TRU → TREL	0.350	< 0.001	7.549	Supported
H10	TREL → BI	0.335	< 0.001	4.580	Supported

Moderating effects analysis

Academic level is considered as a moderator which is moderating direct effects of perceived ease of use, perceived usefulness, trust in university, and trust in e-learning on behavioral intention. Moderating effect was interpreted by a critical ratio for differences between two academic levels provided by AMOS software. All the critical ratio for differences values exceeded 1.96; therefore, H11(a), H11(b), H11(c) and H11(d) were accepted (Table 10). All the hypothesis testing results are presented and concluded in Figure 4.

Table 10: The analysis result of moderator

Hypothesis	Direct Effects	Critical ratios for differences	Moderating	Result
H11(a)	PU → BI	2.443	Yes	Supported
H11(b)	PEOU → BI	1.994	Yes	Supported
H11(c)	TRU → BI	3.049	Yes	Supported
H11(d)	TREL → BI	2.505	Yes	Supported

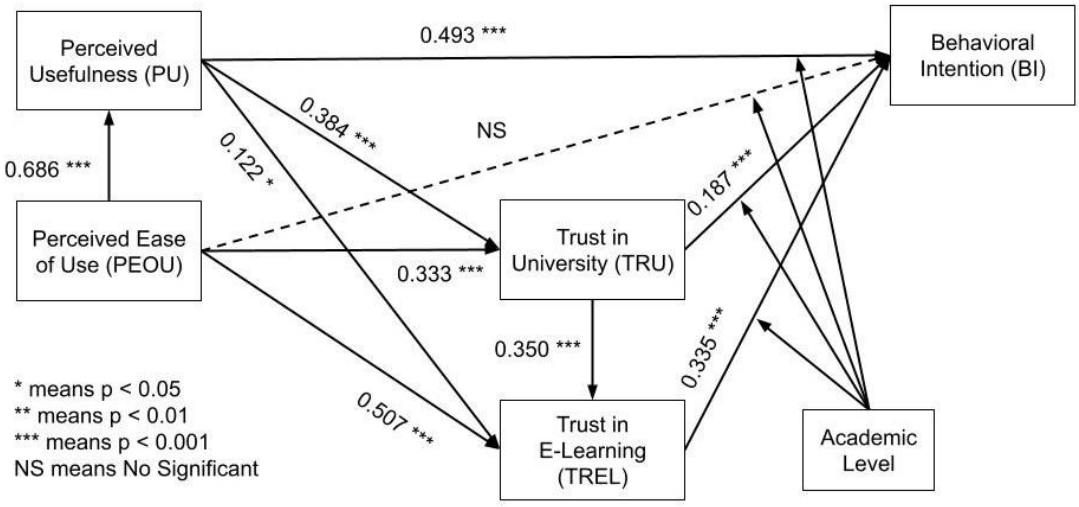

Figure 4: The research model with analysis results

The summary of effects in research model

The analysis results of different types of effect (direct, indirect, total) were estimated in AMOS software and presented in Table 11. Perceived ease of use has the largest total effect on behavioral intention, followed in decreasing order by perceived usefulness, trust in e-learning, and trust in university. There are three mediating factors: perceived usefulness, trust in e-learning, and trust in university. There is only one independent factor, perceived ease of use, which has the largest effect on perceived usefulness, followed in

decreasing order by the total effects on trust in e-learning and trust in university. Additionally, trust in e-learning and trust in university are influenced by perceived usefulness with medium magnitude, and a positive relationship between trust in university and trust in e-learning is confirmed. For squared multiple correlations (R^2), trust in e-learning ($R^2 = 0.743$) is the highest amount of variance, followed in decreasing order by behavioral intention with ($R^2 = 0.741$) and perceived usefulness ($R^2 = 0.471$). Trust in university with ($R^2 = 0.434$) is the lowest accounted for by its predictor variables rather than other endogenous variables.

Table 11: The summary of direct, indirect effects, and total effects in research model

Factors			Effects	Endogenous			
				Mediating			Dependent
				PU (R^2 = .471)	TRU (R^2 = .434)	TREL (R^2 = .743)	BI (R^2 = .741)
Exogenous	Independent	PEOU	Direct	0.686 (L)	0.333 (M)	0.507 (L)	-0.057 (NS)
			Indirect	-	0.264 (M)	0.293 (M)	0.718 (L)
			Total	0.686 (L)	0.597 (L)	0.800 (L)	0.661 (L)
	Mediating	PU	Direct	-	0.384 (M)	0.122 (M)	0.493 (M)
			Indirect	-	-	0.135 (M)	0.158 (M)
			Total	-	0.384 (M)	0.257 (M)	0.651 (L)
		TRU	Direct	-	-	0.350 (M)	0.187 (M)
			Indirect	-	-	-	0.117 (M)
			Total	-	-	0.350 (M)	0.304 (M)
		TREL	Direct	-	-	-	0.335 (M)
			Indirect	-	-	-	-
			Total	-	-	-	0.335 (M)

Note: L = Large Magnitude, M = Medium Magnitude, NS = No Significant

DISCUSSION

According to the findings, a new theoretical concept has emerged: when users perceive available technology as useful and easy to use, they are more likely to trust the institution and the provided technology. Phiakoksong et al. (2021) advocated that universities should consider supporting educational technology with different categories such as communication, content management, video recording, and classroom participation for a better online teaching process. Additionally, Pham et al. (2021) recommended that the interface design of the E-learning system should be user-friendly and easy to use so that students will actively engage with it.

Nowadays, technology has become a prerequisite for building trust both online and offline. The more useful and easy to use technology becomes, the more trust it fosters. Technology has become indispensable for both tangible and intangible trust-building, especially in the online environment. Wang (2014) asserted that technology is one of the factors that influences students' perception of the trustworthiness of online learning. From a managerial perspective, every modern technology has a wide window to foster trust. Even organizations lacking trust can build it by utilizing technology. Furthermore, offline trust, such as institutional trust, can enhance online trust, and both online and offline trust can eventually lead to adoption intention (Tri & Loc, 2013). Additionally, universities should consider that they need to employ different approaches and strategies for students with different academic levels to attract and encourage them to continuously adopt EL.

Perceived usefulness has the most positive effect on the behavioral intention to continuously adopt EL. This means that if students perceive EL as useful, they are more likely to continue using it (Mohammadi, 2015). Trust in e-learning is the second most significant factor that positively affects EL adoption, and Dramani et al. (2022) concluded that eliminating security risks in EL and providing reliable services for students can lead to higher EL adoption. This study confirmed that trust in the university is one of the significant factors to consider for continuing EL use; therefore, the finding aligns with the previous study by Sarosa and Setyowati (2022). The findings indicated that the major factors of TAM, perceived ease of use and perceived usefulness, are the antecedents of building trust in the university and trust in e-learning. This implies that technology acceptance behavior can influence trust. These findings are consistent with previous studies (Taat & Francis, 2020; Ejdys, 2018).

Another vital result in the present study is the positive effect of trust in the university on trust in e-learning, especially in the EL context. Since the reliability of a university is a determinant of trust in its e-learning

system, institutions should pay extra attention to their reputation and relationship with students, as this will transfer to the trust in the system they provide. This suggests that trust transfer theory can be applied in the educational environment as well (Stewart, 2003). Interestingly, perceived ease of use has a statistically insignificant effect on behavioral intention in this study. Even so, perceived ease of use has no direct effect but only an indirect effect through attitude toward use (ATT) on behavioral intention (BI) in the original TAM (Davis, 1989). Mohammadi (2015) discovered in his study that perceived ease of use is an insignificant construct for behavioral intention in the EL context. Alassafi (2022) also concluded that perceived ease of use has only an indirect effect on EL usage.

Despite the insignificant effect of perceived ease of use on behavioral intention, perceived ease of use has indirect effects on behavioral intention through perceived usefulness (PEOU → PU → BI), trust in the university (PEOU → TRU → BI), and trust in EL (PEOU → TREL → BI). Perceived ease of use also has an indirect effect on trust in EL through perceived usefulness (PEOU → PU → TREL). Perceived usefulness not only has a direct positive effect on behavioral intention but also indirect effects on behavioral intention through trust in the university (PU → TRU → BI) and trust in EL (PU → TREL → BI). Both perceived usefulness (PU → TRU → TREL) and perceived ease of use (PEOU → TRU → TREL) have indirect effects on trust in EL through trust in the university. Additionally, trust in the university has an indirect effect on behavioral intention through trust in EL (TRU → TREL → BI). It is also noted that academic level can alter the relationship between behavioral intention and trust in the university, trust in e-learning, perceived ease of use, and perceived usefulness.

For practical reasons, university administrators should prioritize focusing on service quality and implementing effective security measures to enhance students' trust in e-learning. Institution management should regularly educate students about e-learning, enabling them to accomplish learning effectively and effortlessly without physical barriers, by conducting seminars and additional training programs. More importantly, students with different academic levels may not share the same thoughts about institutional trust, e-learning trust, usefulness, and the ease of continuous EL adoption. Thus, university administrators should formulate distinct approaches for specific groups of students.

CONCLUSION

The present research study aimed to investigate the factors influencing continuous EL adoption based on two theories, TAM and TTT, during the post-pandemic period. The pandemic pushed educators and learners to adopt EL, but continuous adoption has become another subject after the pandemic. Hence, this research

provides additional insight into how students will decide to continue using EL. This study extends the EL adoption literature by addressing the proposed research questions as follows. First, perceived ease of use and perceived usefulness are the most vital factors for the continuous adoption of EL, thereby answering RQ1. Second, both offline trust, such as university trust, and online trust, such as e-learning trust, can increase the likelihood of continuous EL adoption, thereby providing the answer to RQ2. Finally, if the technology is useful and easy to use, it can transform not only institutional trust but also trust in technology provided by institutions, thereby addressing RQ3. Regardless of the present study being conducted in only two countries, the results partially reflect the perspective of ASEAN countries.

LIMITATIONS AND RECOMMENDATIONS

The findings of this study reflect university students from only two countries, Myanmar and Vietnam, which can be considered one of the research limitations. Another limitation of this study is that the opinions of non-EL adopters among university students are neglected. The technological aspects of this study were adopted only from TAM, and aspects from other IS theories are excluded. Therefore, future studies should extend the research model of this study by supplementing other technological aspects such as system quality, information quality, and user interface design quality to investigate students' beliefs in technology more precisely. Moreover, the present study took place in the ASEAN region, which means that the findings may differ in other continents. Thus, future researchers should endeavor to conduct similar studies in other regions.

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APPENDICES

Appendix A: Statements in questionnaire

Indicators	Statements	Mean	t	S. D.	Skewness	Kurtosis
PU1	EL enhances my effectiveness of learning.	4.14	29.437	.866	-.522	-.887
PU2	EL improves my learning performance.	4.08	27.837	.866	-.454	-.845
PU3	EL increases my learning outcomes in my course work.	4.07	28.159	.851	-.437	-.806
PU4	EL improves my learning achievements.	4.03	27.328	.844	-.347	-.877
PEOU1	EL is easy to use.	4.07	28.159	.851	-.417	-.859
PEOU2	There is clarity in my interaction with EL.	3.94	24.139	.865	-.269	-.856
PEOU3	My interaction with EL is clear and easy to understand.	3.89	23.748	.834	-.079	-.983
TRU1	I believe that my University is reputable institution.	4.30	36.804	.788	-.707	-.648
TRU2	I feel that most things my university does are honest and transparent.	4.16	30.360	.852	-.643	-.514
TRU3	I feel that my University treats the students fairly.	4.13	29.481	.857	-.546	-.734
TRU4	Overall, I trust my University.	4.27	35.832	.789	-.610	-.830
TREL1	I believe that EL of my university is reliable.	4.05	28.229	.827	-.258	-1.077
TREL2	I believe that EL provide dependable service.	3.99	26.624	.833	-.177	-1.109
TREL3	I believe that EL protect my personal information.	3.74	17.345	.959	-.035	-1.124
BI1	I will use EL regularly as an assistant for my study in the forthcoming time.	4.17	33.377	.783	-.486	-.695
BI2	I intend to use the content and functions of EL as assistance to my academic activities.	4.17	33.398	.784	-.439	-.872
BI3	I intend to visit EL frequently for my course work.	4.10	30.846	.796	-.422	-.670
BI4	I intend to increase using EL in the future.	4.17	31.703	.827	-.485	-.965

Appendix B: Measurement model