ANALYZING SOCIAL MEDIA USE IN TEFL VIA THE TECHNOLOGY ACCEPTANCE MODEL IN INDONESIAN HIGHER EDUCATION DURING THE COVID-19 PANDEMIC

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Abstract

This survey study utilized an extended Technology Acceptance Model (TAM) to understand factors affecting Social Media Use in Teaching English as a Foreign Language (SMU-TEFL) during the COVID-19 pandemic to help improve the integration of effective and efficient technology with traditional education methods. The initial survey instrument that was used was adapted from prior studies and was validated through content validity, piloted, and distributed to 287 EFL faculty members from ten Indonesian universities. Factor analyses (exploratory and confirmatory) were conducted to purify the instrument. Path analysis through Covariance-Based Structural Equation Modelling (CB-SEM) was used to assess correlations of the hypotheses which were supported by the Pearson correlation coefficient. The findings of the study informed a valid and reliable model that sufficiently explains variance to measure factors affecting SMU-TEFL during the Covid-19 pandemic. Six significant relationships out of eight hypothetical statements were confirmed and elaborated. It is recommended that future research be conducted in order to improve the integration of technology into TEFL courses, especially in pandemic situations.

Keywords: social media; use; Covid-19; TEFL; factor analysis

1. Introduction

Historically, humanity has had to face many different public health crises (Taubenberger et al., 2019). Nevertheless, the new virus which was found to have originated in Wuhan, China (the Corona Virus Disease 2019, COVID-19) has been an unprecedented situation in modern times, with billions of people forced to stay at home or in quarantine. No one could have predicted the level of impact this pandemic would ultimately have on humanity. However, modern technology has made facing the current situation much easier when compared to similar situations in the past.

Governments around the world were not be prepared for the level of disruption caused by COVID-19. In education, schools and universities around the world closed their gates in order to try and slow the spread of the virus, which has inevitably affected the instructional process of billions of students. This unprecedented condition has significantly influenced the lives of teachers and students. The closure of schools has led to an accelerated implementation of distance education through technology. Online technology was the main tool used for governments and other parties, such as the World Health Organization, to communicate their suggestions and policies. From e-marketing to distance learning, technology has had a significant role in supporting the world economy. Technology was also used to maintain a social life during lockdowns. One of the most common technologies used during the pandemic was social media.

Social media has made it easier for users to communicate, interact, and network during the COVID-19 pandemic. In education, social media could improve distance learning experiences by facilitating teaching activities and contributing to the establishment of new learning models (Kompen et al., 2019). Research aimed at exploring the use of social media during a pandemic like COVID-19 is still limited. Therefore, this study was conducted to elaborate on factors affecting the use of social media in higher education. With a representative sample of Indonesian EFL faculty members, the current study aimed at making an empirical examination of a valid and reliable instrument for an extended Technology Acceptance Model (TAM). The study also estimated the direct effects of all constructs based on the TAM for Social Media Use in TEFL (SMU-TEFL) during COVID-19.

2. Literature review

2.1. Social media

Social media is classified as the group of software in the Web 2.0 domain. It is defined as innovative technology that supports social networking through texts, images, audio, and video

(Zanamwe et al., 2013). Social media can be categorized into ten groups of tools, and these tools can be anything from publishing applications to virtual worlds. Social media is also described as web-based applications that facilitate communication with a digital approach (Leonardi et al., 2013). In education, social media has been one of many technologies educators have utilized in establishing new strategies and approaches for instructional purposes. The majority of studies that have been conducted on social media examined how the tools were used individually, such as Facebook (Manca, 2020), Twitter (Tang & Hew, 2017), Instagram (Douglas et al., 2019), and YouTube (Ashidiqi et al., 2019). For example, students in higher education were reported to have improved their performance levels by using social media such as Facebook when compared to their performance using traditional learning methods (Roblyer et al., 2010). In general, researchers from across the world have examined factors affecting social media use in education in different contexts and settings (Table 1). It is important to understand these factors when developing and revising policies regarding social media use throughout educational institutions. The examination of these also helps to understand changes in social media innovation and culture, as well as any academic issues that are a result of these changes. Social media has the potential to be an important tool in promoting the ideas of both students and teachers, which in turn facilitates a better learning process. The productive use of social media in teaching can result in a more dynamic learning environment.

Table 1. Studies on factors affecting social media in education

Sources	Method	Context
(Akçayır, 2017)	Mix method; 658 faculty members; turkey	Faculty use
(Ansari & Khan, 2020)	Survey; 360 university students; India	
(Manu et al., 2021)	Mix method; 338 university students; Ghana	Students' engagement
(Al-Rahmi et al., 2015)	Survey; 323 university students; Malaysia	
(Junco et al., 2011)	Experimental; 125 students; USA	Academic achievement
(Azizi et al., 2019)	Survey; 360 university students; Iran	
(Hamadi et al., 2021)	Survey; 151 university students;	Learning performance

(Badri et al., 2017)	Survey; 32,376 school students; Abu Dhabi	
(Al-Qaysi et al., 2021)	Bibliography; 57 articles	Higher education
(Al-Rahmi et al., 2018)	Survey; 723 university students; Malaysia	

2.2. Social media use in TEFL

In TEFL, previous researchers have highlighted that the use of social media applications such as Facebook, Instagram, YouTube, and Twitter improved language learning (Chen et al., 2011; Compernolle & Abraham, 2009; Habibi et al., 2018; Hsieh et al., 2017; Ibarra, 2018; Mei, 2019; Mondahl & Razmerita, 2014; Triana et al., 2020; Wong et al., 2017). For example, Mei (2019) proposed a valid and reliable framework to measure the effects of an EFL program on preparing pre-service teachers' use of technology, including social media. Triana et al. (2020) disclosed the degree of social media integration among college students informing three important functional findings: text creation, text sharing, and text reproducing. Meanwhile, Hsieh et al. (2017) demonstrated the positive effects of LINE (a social media application) on language learning, which proved to be quite significant. Gender difference was also found to be significant in regard to learning performance with i-Map, with female students outperforming male students (Chen et al., 2011). Ibarra (2018) investigated polytechnic students' positive responses to the use of Facebook in their learning process. The use of social media in EFL classrooms supported language learning by providing collaborative learning opportunities which lead to successful foreign language acquisition (Mondahl & Razmerita, 2014). Another study by Compernolle and Abraham (2009) revealed that integrating blogs into English writing classes can motivate students to write and gives them an opportunity for self-expression.

Even though there have been many studies regarding the integration of social media into the TEFL area, few studies have explored the factors affecting the use of social media for TEFL, especially during a pandemic like COVID-19. Thus, this study utilized an extended TAM to understand these factors.

2.4. Technology Acceptance Model (TAM)

TAM was introduced by Davis (1989), and consists of four core variables: perceived ease of use, perceived usefulness, intention to use, and usage behavior. These core variables were often complemented by certain external variables that were regarded as representations of personal capabilities in certain settings and contexts. These variables are different across cultures and

places, and therefore require an exact definition for each individual study. The definitions of terms which apply to the variables in this study are exhibited in Table 2.

Table 2. The concepts of TAM variables for this research

Variable	Concept
Perceived ease of use	The level to which a faculty member believes that using social media in TEFL during COVID-19 would be easy
Perceived usefulness	The level to which a person believes that a faculty member believes that using social media in TEFL during COVID-19 would enhance work performance
Attitude	A person's certain behavior linked with the use of social media in TEFL during Covid-19
Facilitating condition	The degree to which a person believes that organizational and technical resources exist to support the use of social media in TEFL during Covid-19
SMU-TEFL	Faculty member's social media use in teaching English as a foreign language during Covid-19

3. Methodology

3.1. Conceptual model and hypotheses

This study was conducted from March to July 2020 during the university closure in Indonesia. Co-funded by Universitas Jambi and the Indonesia Endowment Fund for Education (LPDP Indonesia), the current study utilized a survey as the data collection method. The study's proposed model used an extended TAM with a predictive approach. Eight hypotheses of the study's direct relationships were outlined based on the extended TAM (Figure 1); facilitating condition will positively affect the perceived ease of use (H1); facilitating condition will positively affect perceived usefulness (H2); perceived ease of use will positively affect perceived usefulness (H3); perceived usefulness will positively affect attitude (H4); perceived ease of use will positively affect attitude (H5); perceived usefulness will positively affect SMU-TEFL (H6); attitude will positively affect SMU-TEFL (H7); and perceived ease of use will positively affect SMU-TEFL (H8).
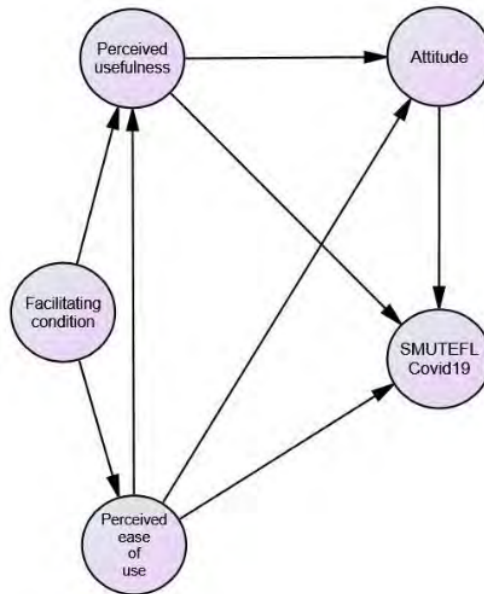
Figure 1. Proposed model

3.2. Instrumentation

At the beginning of the process, the instrument establishment involved a discussion with four educational experts through Zoom; which is an online-based video communication application as part of content validity. The decision to drop some original indicators was taken through an in-depth discussion with the involved experts to meet the context and setting of the population. In this study, responses to the indicators were measured on a 5-point Likert scale from 1 = strongly disagree to 5 = strongly agree. The original indicators of TAM for perceived usefulness (4 indicators) and perceived ease of use (4 indicators) were adapted (Davis, 1986). For attitude, three indicators were adapted from the study of Sadaf et al. (2012). The adaptation of Teo et al.'s (2018) work was conducted for facilitating condition (3 indicators). Guided by Habibi et al. (2020a) and Aslan and Zhu (2017), the SMU-TEFL was established with eight indicators. The survey was translated through back-translation strategies from English to Indonesian and vice versa, with assistance from two professional translators. In purifying the instrument to be valid and reliable for the Indonesian setting and context, some statistical approaches were addressed, namely Content Validity Index (CVI), Exploratory Factor Analysis (EFA), and Confirmatory Factor Analysis (CFA).

The examination of validity and reliability in research is one of the most fundamental steps regarding the establishment and implementation of research instruments for educational,

psychological, or organizational purposes (Roberts & Bilderback, 1980). Validity depicts the decision quality resulting from an assessment. Regarding the validity of educational technology instruments, researchers have explored various statistical analyses that elaborated on both teachers' and students' perceptions (Dasig & Pascua, 2016; Dong et al., 2015; Habibi et al., 2020a). Some steps in examining the validity and reliability of research instruments have been previously addressed, namely content validity and Exploratory Factor Analysis (EFA) (Habibi et al., 2020b), EFA and Confirmatory Factor Analysis (CFA) (Dong et al., 2015), as well as pre-test and post-test design (Dasig & Pascua, 2016). Regarding the TAM, Melas et al. (2011) developed their study through factor analysis for the data validation. Zheng and Li (2020) implemented a measurement model to test the validity and reliability.

3.3. CVI and pilot study

A CVI approach aimed at validating the instruments in an initial stage was used, and involved some experts (Habibi et al., 2020a). Ten experts in the educational technology and policy fields were supposed to assess the instrument. The indicators of the instrument were examined on a 4-point scale with 1 = not relevant/not clear to 4 = very relevant/very clear (Habibi et al., 2020a). Lynn (1986) suggested that the measurements, namely item level (I-CVI) and scale level (S-CVI), should be assessed by informing a value of 3 or 4 scored by the experts. Then the results should be divided by the experts' total number. By involving ten experts, the I-CVI must not be < .780. In addition, the S-CVI was the average of agreement = S-CVI/AVE. The adequate score for the S-CVI should be > .800. One of the eight indicators of SMU-TEFL (Use 8 = .675) was dropped due to scoring lower than the cut-off value of I-CVI of > .780. After the CVI analysis, a pilot study was conducted with 30 EFL faculty members from an Indonesian university. They were requested to comment on the indicators and note if the indicators were confusing, so that they may be revised. A reliability evaluation through the assessment of Cronbach's alpha was done, and no scores of alpha below .700 were evaluated (Pallant, 2005).

3.4. Data collection

After the CVI and pilot study processes were complete, the instrument was shared with respondents through a simple random sampling technique. An online-based instrument was shared with EFL faculty members at ten Indonesian universities, five public and five private institutions. Two hundred and eighty-seven responses were recorded (Table 3). There were 41 (14.29%) male respondents and 246 (85.71%) females. One hundred and fifty-eight (56.10%) respondents worked for public universities, while 126 (43.90%) respondents worked for private

universities. Teaching experience varied amongst the respondents, with 59 (20.56%) respondents having below five years of teaching experience and 228 (79.44%) respondents with above five years of teaching experience. We referred to the working experience category of Al-Eyd et al. (2018); with novice teachers being defined as having less than five years of teaching experience and experienced teachers with more than five years of experience.

Table 3. Demographic information

Information	Frequency	Percentage
Gender		
Male	41	14.29
Female	246	85.71
Institution ownership		
Public	161	56.10
Private	126	43.90
Teaching experience		
< 5 years	59	20.56
> 5 years	228	79.44

3.5. Data analysis

The normality assessment of the data was conducted by calculating the values of Skewness (-1 to +1) and Kurtosis (-2 to +2). In addition to the normality assessment, multicollinearity issue was also reported. This emerges in correlation matrixes with correlations of $> .900$ (Prasojo et al., 2020). Overall descriptive statistics were also presented before the data was computed for the EFA.

The main statistical examination of the current study was elaborated through EFA and CFA for the assessment of the data factor analysis. Additionally, CB-SEM was done to report direct relationships among the variables as well as the fit model (Hair et al., 2010). Because the instrument was adapted from previous studies in English, the EFA was addressed to achieve new factors from the population characteristics in the Indonesian language (Zainudin, 2012). With the EFA approach, a principal component analysis procedure was utilized to calculate unrelated linear groups towards observed factors with some statistical requirements, namely Kaiser Meyer Olkin, Bartlett's Test of Sphericity, eigenvalue, communality, and factor loading. The Kaiser Meyer Olkin values should be higher than .500. Bartlett's Test of Sphericity should be significant at $p < .05$. Eigenvalue should be greater than 1.0 and a communality of $< .300$ should also be

eliminated. The loading value should be more than .400 when confirming a satisfactory factor for the questionnaire (Hair et al., 2010).

Following the EFA, the CFA approach was processed through some indices in confirming the EFA results. The computation of Chi-Square Test ($\chi2$), the Root Mean Square Error of Approximation (RMSEA), the Standardized Root Mean Square of Residual (SRMR) Comparative Fit Index (CFI), and Tucker-Lewis Index (TLI) should be confirmed and informed (Prasojo et al., 2020). In achieving a fit model, the threshold values offered by Hair et al., (2010) were applied; RMSEA = ≤ .080, SRMR = ≤ .080, TLI = ≥ .900, and CFI = ≥ .900 (Hair et al., 2010; Kline, 2015).

For CB-SEM, some cut-off values in the CFA were also applied for the assessment of the final model; RMSEA = ≤ .080, SRMR = ≤ .08, TLI = ≥ .900, and the CFI = ≥ .900. The path coefficient and p-value are informed in detail for the final report of the relationships among the hypothetical variables (Hair et al., 2010; Kline, 2015; Zainudin, 2012). In supporting the path analysis, a correlational analysis using the Pearson correlation coefficient was addressed. Using Evans' (1996) guideline, the value of *r* guideline was set at 00-.19 for very weak, .20-.39 for weak; .40-.59 for moderate, .60-.70 for strong, and .80-1 for very strong.

4. Results

4.1. Normality of the data

The Skewness and Kurtosis value of each construct was satisfactory (Table 4). The Skewness values ranged from -.365 to -.111 and the Kurtosis values between -.332 and 1.494. For the multicollinearity, initial inter-correlations process with Pearson correlation coefficient amongst the constructs ranged from .326 to .555 or less than .900. As a result, the discriminant validity of the variables was achieved (Hair et al., 2010). The average mean of perceived usefulness was (M = 3.759; SD = .492), perceived ease of use (M = 3.842; SD = .760), attitude (M = 3.767; SD =.646), facilitating condition (M = 3.457; SD = .725), and SMU-TEFL (M = 3.813; SD = .797).

Table 4. Skewness, Kurtosis, M, and SD

	Skewness	Kurtosis	Scale items	M	SD
Perceived usefulness	-.157	1.050	PU1	3.753	0.652
			PU2	3.861	0.670
			PU3	3.732	0.643

			PU4	3.690	0.737
Perceived ease of use	-.196	-.316	PEOU1	3.899	0.762
			PEOU2	3.812	0.743
			PEOU3	3.742	0.791
			PEOU4	3.913	0.745
Attitude	-.275	1.012	AT1	3.645	0.679
			AT2	3.655	0.645
			AT3	3.732	0.615
Facilitating condition	-.111	1.494	FC1	3.495	0.770
			FC2	3.300	0.705
			FC3	3.575	0.700
SMU-TEFL	-.365	.332	USE1	3.951	0.796
			USE2	3.728	0.773
			USE3	3.927	0.779
			USE4	4.070	0.735
			USE5	3.690	0.847
			USE6	3.627	0.817
			USE7	3.697	0.833

4.2. Exploratory factor analysis (EFA)

Table 5 presents the cross-loading, communality, and eigenvalue of the data. The Kaiser Meyer Olkin value of the data was satisfactory (.850), and Bartlett's Test of Sphericity was 1265.862 (*p* < .01). Through Varimax rotation, five factors (perceived usefulness, perceived ease of use, attitude, facilitating condition, SMU-TEFL) that are identical with the seminal theory of the TAM; the eigenvalues ranged from 1.028 to 7.024. Communality values were satisfactory, ranging from .441-.825. Two indicators (Use5 and Use7) were dropped from the scale because the cross-loading values were identified.

Table 5. EFA results

Factor	Item	Component					Communality	Eigenvalue
		1	2	3	4	5		
SMU-TEFL	Use3	.851					.832	7.024
	Use2	.774					.713	
	Use4	.771					.712	
	Use1	.626					.560	
	Use6	.483					.441	

Perceived usefulness	PU4	.787			.692	2.180
	PU3	.782			.640	
	PU2	.698			.684	
	PU1	.672			.669	
Perceived ease of use	PEOU4		.781		.716	1.721
	PEOU2		.767		.735	
	PEOU1		.711		.726	
	PEOU3		.662		.629	
Facilitating condition	FC3			.847	.814	1.369
	FC1			.830	.825	
	FC2			.773	.672	
Attitude	AT3				.859 .785	1.028
	AT2				.845 .760	
	AT1				.731 .716	

4.3. Confirmatory factor analysis (CFA)

By calculating different data samples, CFA was done in an attempt to verify the results of EFA (Hair et al., 2010). The initial or first measurement model did not obtain fit indices. The TLI score was .887, which means it did not meet the threshold value of > .900. Therefore, we dropped one indicator (Use 6) due to the issue of a low loading value. A covariance was drawn with a headed arrow between PEOU3 and PEOU4 due to a high value of the modification indices between both. As a result, the second computation on the CFA achieved good fit indices (CFA; $\chi2 = 292.459$, $\chi2/df = 2.359.190$, RMSEA = .069, SRMR = .029, TLI = $\geq$ .916, and the CFI = .932). Cronbach's alpha (α), Composite Reliability (CR), and Average Variance Extracted (AVE) were computed for the reliability assessment. Values of .600 - .700 are satisfactory for Cronbach's alpha. Meanwhile, CR should be above .600, and AVE should be above .500. Table 6 informs that the instrument is valid and reliable since all values exceed the cut-off points.

Table 6: CFA results

Variable	Indicators	loadings	CR	AVE	α
Perceived usefulness	PU1	.820	.821	.730	.814
	PU2	.690			
	PU3	.700			
	PU4	.710			
Perceived ease of use	PEOU1	.740	.820	.727	.825
	PEOU2	.850			
	PEOU3	.640			

	PEOU4	.680			
Attitude	AT1	.820	.831	.786	.841
	AT2	.680			
	AT3	.860			
Facilitating condition	FC1	.880	.837	.793	.829
	FC2	.750			
	FC3	.750			
SMU-TEFL	USE1	.690	.825	.735	.824
	USE2	.700			
	USE3	.820			
	USE4	.730			

4.4. Pearson correlation coefficient and CB-SEM results

The findings of the study for the correlational analysis through the Pearson correlation coefficient reported that all relationships were significant. The highest coefficient was between perceived usefulness and perceived ease ($r = .555$, $p < .01$) while the lowest relationship was between perceived usefulness and facilitating condition which was significant and weak ($r = .326$, $p < .01$). Table 7 informs all relationships among variables.

Table 7. Pearson correlation results

	Perceived usefulness	Perceived ease of use	Facilitating condition	Attitude	SMU-TEFL
Perceived usefulness	1	.555**	.326**	.470**	.479**
Perceived ease of use	.555**	1	.382**	.373**	.543**
Facilitating condition	.326**	.382**	1	.444**	.413**
Attitude	.470**	.373**	.444**	1	.375**
SMU-TEFL	.479**	.543**	.413**	.375**	1

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

The computation results of the path analysis through CB-SEM inform that the structural model of the study was in a good model fit; $\chi2 = 328.892$, $\chi2/df = 2.610$, RMSEA $= 0.071$, SRMR $= \le .036$, TLI $= .901$ and CFI $= .918$. All loading values were in the range from .640 to .880, surpassing the standard of .500 suggested by Zainudin (2012). The hypothetical structural information for the finalized model indicated some correlations among hypothesized factors of SMU-TEFL for the context of Indonesian EFL faculty members' use of social media in teaching

during COVID-19. The final model can be utilized as a reference whether to agree or debate the previous research on variance explanation to measure factors that affect the social media integration in teaching.

Adapting the TAM, there were no indirect relationships found in this study. Therefore, eight hypotheses were included and six of them were found to be supported by the findings of the study (Table 8 and Figure 2). Hypothesis (H1) was supported since facilitating condition was found to be significant in affecting perceived ease of use (β = .474; *p* <.001). H2 was also confirmed where facilitating condition positively affected perceived usefulness (β = .155; *p* <.05). Perceived ease of use significantly influenced perceived usefulness, supporting H3, (β = .539; *p* <.001). For H4, perceived usefulness had a strong effect on attitude (β = .604; *p* <.001). In affecting SMU-TEFL, perceived ease of use, H8, was a stronger factor (β = .493; *p* <.001) than perceived usefulness, H6 (β = .252; *p* <.05). On the other hand, two insignificant correlations (H5 and H7) were informed. Perceived ease of use was insignificant in relation to its effect on attitude (β = .130; *p* = .185), and attitude was insignificant on its affect SMU-TEFL (β = .073; *p* =.268).

Table 8. CB-SEM Results

|				β	S.E.	C.R.	*p*	Label
H1	Facilitating condition	➔	Perceived ease of use	.474	.070	6.741	*p* <.001	Significant
H2	Facilitating condition	➔	Perceived usefulness	.155	.066	2.357	*p* <.05	Significant
H3	Perceived ease of use	➔	Perceived usefulness	.539	.077	6.959	*p* <.001	Significant
H4	Perceived usefulness	➔	Attitude	.604	.110	5.479	*p* <.001	Significant
H5	Perceived ease of use	➔	Attitude	.130	.098	1.325	.185	Insignificant
H6	Perceived usefulness	➔	SMU-TEFL	.252	.100	2.528	*p* <.05	Significant
H7	Attitude	➔	SMU-TEFL	.073	.066	1.108	.268	Insignificant
H8	Perceived ease of use	➔	SMU-TEFL	.493	.091	5.409	*p* <.001	Significant
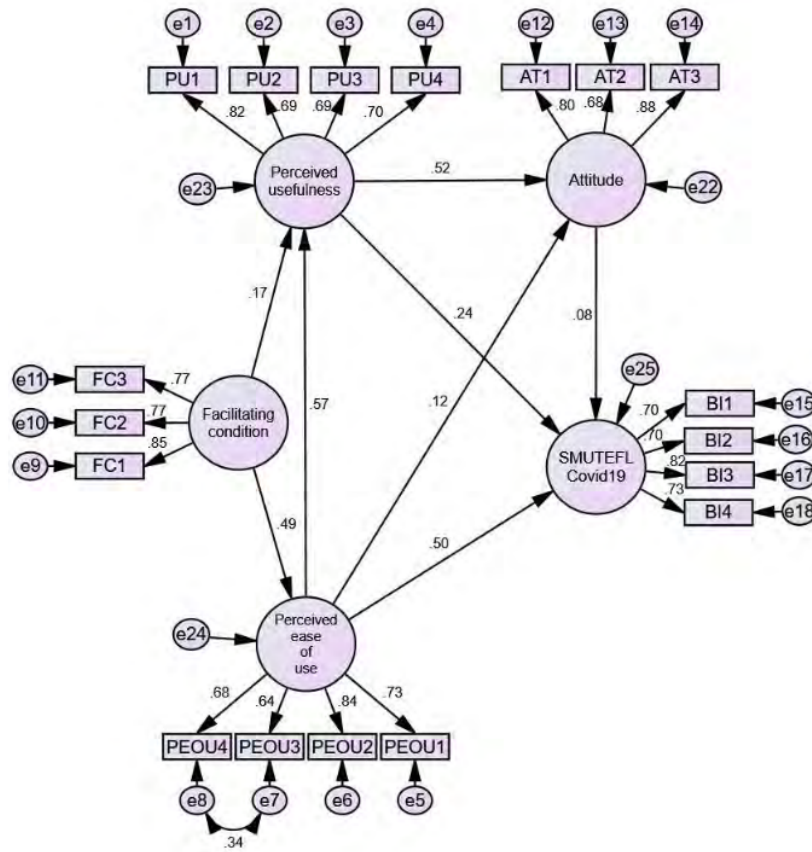
Figure 2. Final model

5. Discussion

Besides examining the relationship of the proposed hypotheses, this study was aimed at developing and validating the SMU-TEFL scale to understand factors affecting SMU-TEFL during COVID-19. The final-measured scale has been proceeded through EFA and CFA. The EFA procedure is a method used to inform unidentified factors of a proposed model in academic research. The EFA process for instrument development in educational technology integration has also been utilized by other studies (Habibi et al., 2020b; Dong et al., 2015). Meanwhile, CFA is an important tool in confirming the measurement model of the proposed model; which is a guideline to measure for factors affecting the use of social media in TEFL. This can be used to improve online-based technology . Similar procedures of CFA have been addressed by previous

sources (Dong et al., 2015; Habibi et al., 2020b; Melas et al., 2011). A total of 18 indicators on the scale showed proper psychometric properties. This can provide future studies with an academic reference to study TEFL faculty members' social media integration during pandemics like Covid-19.

In this study, the TAM was successfully extended to the model fit for CB-SEM by adding one external factor (facilitating condition) which was relevant to social media integration during the Covid-19 pandemic in Indonesia. The path process through the CB-SEM informed that the validated model is suitable for the context and setting of Indonesian TEFL; however, it might also suit other contexts and settings. It was revealed that perceived usefulness and perceived ease of use were strong predictors for the SMU-TEFL during the Covid-19 pandemic. According to the results, when social media is beneficial and user-friendly, Indonesian EFL faculty members will prefer integrating it with their teaching methods during a pandemic. Even though the current situation is much different than normal conditions, several previous studies that have highlighted similar results (e.g., Buabeng-Andoh et al., 2019; Rejón-Guardia et al., 2019; Teo et al., 2018) strengthen this finding. Attitudes towards social media were influenced by perceived usefulness. This indicates that the benefits of social media can influence the respondents' behavior towards the use of social media in TEFL courses during the Covid-19 pandemic. Prior research in normal teaching and learning conditions also found similar results (Buabeng-Andoh et al., 2019; Teo et al., 2018). Hypotheses (H1 and H2) were also corroborated by the findings of this study, which confirmed that facilitating condition significantly influenced perceived ease of use and perceived usefulness. Similar results were also revealed by Habibi et al. (2018) and Nikou and Ecomides (2019), who show that conditions or beliefs that support the use of social media in TEFL during the COVID-19 pandemic are key predictors of perceived ease of use and perceived usefulness. The last relationship found to be positively significant was between perceived ease of use and perceived usefulness (β =.539; *p* <.001). This proves that beliefs in the benefits of using social media in TEFL during the Covid-19 pandemic were driven by their ease of use in teaching. On the other hand, two insignificant relationships were revealed between perceived ease of use and attitude as well as between attitude and SMU-TEFL. In contrast, previous studies revealed that these two relationships were significant (Buabeng-Andoh et al., 2019; Habibi et al., 2018; Lai et al., 2012; Teo et al., 2018).

6. Conclusion

In the current situation of the COVID-19 pandemic, the use of technology to support the teaching and learning process is unavoidable. Therefore, the promotion of the effective use of technology

like social media should always be considered for various contexts during a pandemic. Due to the closure of many educational institutions, the use of social media is expected to provide advantages for both teachers and students. In order to conduct further in-depth studies regarding this situation, a valid and reliable instrument to measure the integration of technology for distance learning should be developed. This study provides a new framework for future studies to follow in order to examine the integration of technology in education during a pandemic. Based on the TAM, eight hypotheses were proposed in this study, and six of them were supported. The development of a scale involved phases such as EFA and CFA, in order to produce one that was valid and reliable.

Through the procedures of CB-SEM in SPSS, the findings inform related stakeholders, mainly EFL faculty members in developing countries, on how to better prepare themselves with the effective use of technology during similar kinds of pandemics in the future. Providing the faculty members with adequate facilities to support distance learning is very important. Motivating them to learn the use of social media as an efficient and effective tool in teaching is similarly important. In this study, EFL faculty members were the respondents. In future studies, faculty members from many different fields should also be considered as research samples. Students' perception is similarly important. Differences among varying demographics, such as access to technology during school closures, should also be considered for future research.

Acknowledgment

References

Akçayır, G. (2017). Why do faculty members use or not use social networking sites for education? *Computers in Human Behavior*, *71*, 378-385. https://doi.org/10.1016/j.chb.2017.02.028

Al-Eyd, G., Achike, F., Agarwal, M., Atamna, H., Atapattu, D. N., Castro, L., Estrada, J., Ettarh, R., Hassan, S., Lakhan, S. E., Nausheen, F., Seki, T., Stegeman, M., Suskind, R., Velji, A., Yakub, M., & Tenore, A. (2018). Curriculum mapping as a tool to facilitate curriculum development: A new School of Medicine experience. *BMC Medical Education*, *18*(1), 185. https://doi.org/10.1186/s12909-018-1289-9

Al-Qaysi, N., Mohamad-Nordin, N., & Al-Emran, M. (2021). Factors affecting the adoption of social media in higher education: A Systematic review of the technology acceptance model. *Studies in Systems, Decision and Control*, *295*, 571-584 . https://doi.org/10.1007/978-3-030-47411-9_31

Al-Rahmi, W. M., Alias, N., Othman, M. S., Marin, V. I., & Tur, G. (2018). A model of factors affecting learning performance through the use of social media in Malaysian higher education. *Computers and Education*, *121*, 59-72. https://doi.org/10.1016/j.compedu.2018.02.010

Al-Rahmi, W. M., Othman, M. S., Yusof, L. M., & Musa, M. A. (2015). Using social media as a tool for improving academic performance through collaborative learning in Malaysian higher education. *Review of European Studies*, *7*(3), 265-275. https://doi.org/10.5539/res.v7n3p265

Alkahtani, S. A. (2011). EFL female faculty members' beliefs about CALL use and integration in EFL instruction: The case of Saudi higher education. *Journal of King Saud University - Languages and Translation*, *23*(2), 87-98. https://doi.org/10.1016/j.jksult.2011.04.004

Ansari, J. A. N., & Khan, N. A. (2020). Exploring the role of social media in collaborative learning the new domain of learning. *Smart Learning Environments*, *7*(1), 1-16. https://doi.org/10.1186/s40561-020-00118-7

Aslan, A., & Zhu, C. (2017). Investigating variables predicting Turkish pre-service teachers' integration of ICT into teaching practices. *British Journal of Educational Technology*, *48*(2), 552–570. https://doi.org/10.1111/bjet.12437

Azizi, S. M., Soroush, A., & Khatony, A. (2019). The relationship between social networking addiction and academic performance in Iranian students of medical sciences: A cross-sectional study. *BMC Psychology*, *7*(1), 1-8. https://doi.org/10.1186/s40359-019-0305-0

Badri, M., Nuaimi, A. Al, Guang, Y., & Rashedi, A. Al. (2017). School performance, social networking effects, and learning of school children: Evidence of reciprocal relationships in Abu Dhabi. *Telematics and Informatics, 34*(8), 1433-1444. https://doi.org/10.1016/j.tele.2017.06.006

Buabeng-Andoh, C., Yaokumah, W., & Tarhini, A. (2019). Investigating students' intentions to use ICT: A comparison of theoretical models. *Education and Information Technologies*, *24*(1), 643–660. https://doi.org/10.1007/s10639-018-9796-1

Chen, H. R., Hwang, J. P., Wu, T. T., Huang, Y. M., & Hsueh, H. T. (2011). Assessment of implementing a digital game-based learning system over Facebook. *Proceedings of the 2011 11th IEEE International Conference on Advanced Learning Technologies, ICALT 2011*. https://doi.org/10.1109/ICALT.2011.191

Chen Hsieh, J. S., Wu, W. C. V., & Marek, M. W. (2017). Using the flipped classroom to enhance EFL learning. *Computer Assisted Language Learning*, *30*, 1-21. https://doi.org/10.1080/09588221.2015.1111910

Compernolle, R. A. van, & Abraham, L. B. (2009). Interactional and discursive features of English-language weblogs for language learning and teaching. *Electronic Discourse in Language Learning and Language Teaching, 25*, 193-212. https://doi.org/10.1075/lllt.25.15com

Dasig, D. D., & Pascua, S. M. (2016). Effects of digital learning objects in teaching realtime system. *Site*, *2013*, 1488–1498.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly: Management Information Systems*, *13*(3), 319-339. https://doi.org/10.2307/249008

Dong, Y., Chai, C. S., Sang, G. Y., Koh, J. H. L., & Tsai, C. C. (2015). Exploring the profiles and interplays of pre-service and in-service teachers' technological pedagogical content knowledge (TPACK) in China. *Educational Technology and Society*, *18*(1), 158-169.

Douglas, N. K. M., Scholz, M., Myers, M. A., Rae, S. M., Elmansouri, A., Hall, S., & Border, S. (2019). Reviewing the role of Instagram in education: Can a photo sharing application deliver benefits to medical and dental anatomy education? *Medical Science Educator*, *29*(4). https://doi.org/10.1007/s40670-019-00767-5

Ibarra, F. D. (2018). Is Facebook beneficial for writing practice? Ecuadorian polytechnic students speak up! *Teaching English with Technology*, *18*(3), 3-17.

Habibi, A., Yusop, F. D., & Razak, R. A. (2020a). The dataset for validation of factors affecting pre-service teachers' use of ICT during teaching practices: Indonesian context. *Data in Brief*, *28*, 1-7. https://doi.org/10.1016/j.dib.2019.104875

Habibi, A., Mukminin, A., Riyanto, Y., Prasojo, L. D., Sulistiyo, U., Sofwan, M., & Saudagar, F. (2018). Building an online community: Student teachers' perceptions on the advantages of using social networking services in a teacher education program. *Turkish Online Journal of Distance Education*, *19*(1), 46–61. https://doi.org/10.17718/tojde.382663

Habibi, A, Yusop, F. D., & Razak, R. A. (2020b). The role of TPACK in affecting pre-service language teachers' ICT integration during teaching practices: Indonesian context. *Education and Information Technologies*, *25*(3), 1929-1949. https://doi.org/10.1007/s10639-019-10040-2

Hair, J., Black, W., Babin, B., & Anderson, R. (2010). Multivariate data analysis: International version (7th ed.). Upper Saddle River, NJ: Pearson Education.

Halek, M., Holle, D., & Bartholomeyczik, S. (2017). Development and evaluation of the content validity, practicability and feasibility of the Innovative dementia-oriented Assessment system for challenging behaviour in residents with dementia. *BMC Health Services Research*, *17*(1),554. https://doi.org/10.1186/s12913-017-2469-8

Hamadi, M., El-Den, J., Azam, S., & Sriratanaviriyakul, N. (2021). Integrating social media as cooperative learning tool in higher education classrooms: An empirical study. *Journal of King Saud University - Computer and Information Sciences, in press*. https://doi.org/10.1016/j.jksuci.2020.12.007

Junco, R., Heiberger, G., & Loken, E. (2011). The effect of Twitter on college student engagement and grades. *Journal of Computer Assisted Learning*, *27*(2), 119-132. https://doi.org/10.1111/j.1365-2729.2010.00387.x

Kline, R. B. (2015). *Principles and Practice of Structural Equation Modeling* (4th ed.). New York: Guilford Publications.

Lai, C., Wang, Q., & Lei, J. (2012). What factors predict undergraduate students' use of technology for learning? A case from Hong Kong. *Computers and Education*, *59*(2), 569-579. https://doi.org/10.1016/j.compedu.2012.03.006

Larosiliere, G. D., McHaney, R., & Kobelsky, K. (2016). The effects of it management on technology process integration. *Journal of Computer Information Systems*, *56*(4), 341-351. https://doi.org/10.1080/08874417.2016.1164494

Leonardi, P. M., Huysman, M., & Steinfield, C. (2013). Enterprise social media: Definition, history, and prospects for the study of social technologies in organizations. *Journal of Computer-Mediated Communication*, *19*(1), 1-19. https://doi.org/10.1111/jcc4.12029

Lynn, M. R. (1986). Determination and quantification of content validity. *Nursing Research*, *35*(6), 382-386. https://doi.org/10.1097/00006199-198611000-00017

Manca, S. (2020). Snapping, pinning, liking or texting: Investigating social media in higher education beyond Facebook. *Internet and Higher Education*, *44*. https://doi.org/10.1016/j.iheduc.2019.100707

Manu, B. D., Ying, F., Oduro, D., & Boateng, S. A. (2021). Student engagement and social media in tertiary education: The perception and experience from the Ghanaian public university. *Social Sciences & Humanities Open*, *3*(1), 1-12.

Mondahl, M., & Razmerita, L. (2014). Social media, collaboration and social learning - A case-study of foreign

language learning. *Electronic Journal of E-Learning*, *12*(4), 339-352.

Mei, B. (2019). Preparing preservice EFL teachers for CALL normalisation: A technology acceptance perspective. *System*, *83*, 13-24. https://doi.org/10.1016/j.system.2019.02.011

Melas, C. D., Zampetakis, L. A., Dimopoulou, A., & Moustakis, V. (2011). Modeling the acceptance of clinical information systems among hospital medical staff: An extended TAM model. *Journal of Biomedical Informatics*, *44*(4), 553-564. https://doi.org/10.1016/j.jbi.2011.01.009

Muhaimin, Habibi, A., Mukminin, A., Pratama, R., Asrial, & Harja, H. (2019). Predicting factors affecting intention to use Web 2.0 in learning: Evidence from science education. *Journal of Baltic Science Education*, *18*(4), 595-606. https://doi.org/10.33225/jbse/19.18.595

Ashidiqi, M. N. A., Rohmatiah, A., & Rahmah, F. A. (2019). Youtube free quran education as a source of Islamic education learning materials and media. *Khalifa: Journal of Islamic Education*, *3*(2), 126-141.

Nikou, S. A., & Economides, A. A. (2019). Factors that influence behavioral intention to use mobile-based assessment: A STEM teachers' perspective. *British Journal of Educational Technology*, *50*(2), 587-600. https://doi.org/10.1111/bjet.12609

Pallant, J. (2005) *SPSS Survival guide: A Step by Step Guide to Data Analysis Using SPSS for Windows* (3rd Ed.). New York: Open University Press.

Polit, D. F., & Beck, C. T. (2009). International gender bias in nursing research, 2005-2006: A quantitative content analysis. *International Journal of Nursing Studies*, *46*(8), 1102-1110. https://doi.org/10.1016/j.ijnurstu.2009.02.002

Prasojo, L. D., Mukminin, A., Habibi, A., Marzulina, L., Sirozi, M., & Harto, K. (2018). Learning to teach in a digital age: ICT integration and EFL student teachers' teaching practices. *Teaching English with Technology*, *18*(3), 18-32.

Rejón-Guardia, F., Polo-Peña, A. I., & Maraver-Tarifa, G. (2020). The acceptance of a personal learning environment based on Google apps: the role of subjective norms and social image. *Journal of Computing in Higher Education*, *32*(2), 203-233. https://doi.org/10.1007/s12528-019-09206-1

Roberts, D. M., & Bilderback, E. W. (1980). Reliability and validity of a statistics attitude survey. *Educational and Psychological Measurement*, *40*(1). https://doi.org/10.1177/001316448004000138

Roblyer, M. D., McDaniel, M., Webb, M., Herman, J., & Witty, J. V. (2010). Findings on Facebook in higher education: A comparison of college faculty and student uses and perceptions of social networking sites. *Internet and Higher Education*, *13*(3), 134-140. https://doi.org/10.1016/j.iheduc.2010.03.002

Sadaf, A., Newby, T. J., & Ertmer, P. A. (2012). Exploring factors that predict preservice teachers' intentions to use web 2.0 technologies using decomposed theory of planned behavior. *Journal of Research on Technology in Education*, *45*(2), 171-196. https://doi.org/10.1080/15391523.2012.10782602

Tang, Y., & Hew, K. F. (2017). Using Twitter for education: Beneficial or simply a waste of time? *Computers and Education*, *106*, 97-118. https://doi.org/10.1016/j.compedu.2016.12.004

Taubenberger, J. K., Kash, J. C., & Morens, D. M. (2019). The 1918 influenza pandemic: 100 years of questions answered and unanswered. *Science Translational Medicine*, *11*(502), 5485. https://doi.org/10.1126/scitranslmed.aau5485

Teo, T., Sang, G., Mei, B., & Hoi, C. K. W. (2019). Investigating pre-service teachers' acceptance of Web 2.0 technologies in their future teaching: a Chinese perspective. *Interactive Learning Environments*, *27*(4), 530-

546. https://doi.org/10.1080/10494820.2018.1489290

Torres Kompen, R., Edirisingha, P., Canaleta, X., Alsina, M., & Monguet, J. M. (2019). Personal learning Environments based on Web 2.0 services in higher education. *Telematics and Informatics*, *38,* 194-206. https://doi.org/10.1016/j.tele.2018.10.003

Triana, H. W., Wirman, E. P., Kustati, M., Reflinaldi, Rahmi, A., & Nelmawarni. (2020). Social practice on facebook: Critical discourse analysis in the process of text production. *Studies in English Language and Education*, *7*(1), 1-21. https://doi.org/10.24815/siele.v7i1.15170

Wong, L. H., Chai, C. S., & Aw, G. P. (2017). Seamless language learning: Second language learning with social media. *Comunicar*, *25*(50), 9-21. https://doi.org/10.3916/C50-2017-01

Zainudin, A. (2012). *A Handbook on SEM (Structural Equation Modeling) Using AMOS*. Shah Alam, Malaysia: Universiti Teknologi MARA Press.

Zanamwe, N., Rupere, T., & Kufandirimbwa, O. (2013). Use of social networking technologies in higher education in Zimbabwe: A learners' perspective. *International Journal of Computer and Information Technology*, *2*(1), 0746.

Zheng, J., & Li, S. (2020). What drives students' intention to use tablet computers: An extended technology acceptance model. *International Journal of Educational Research*, *102,* 101612. https://doi.org/10.1016/j.ijer.2020.101612

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