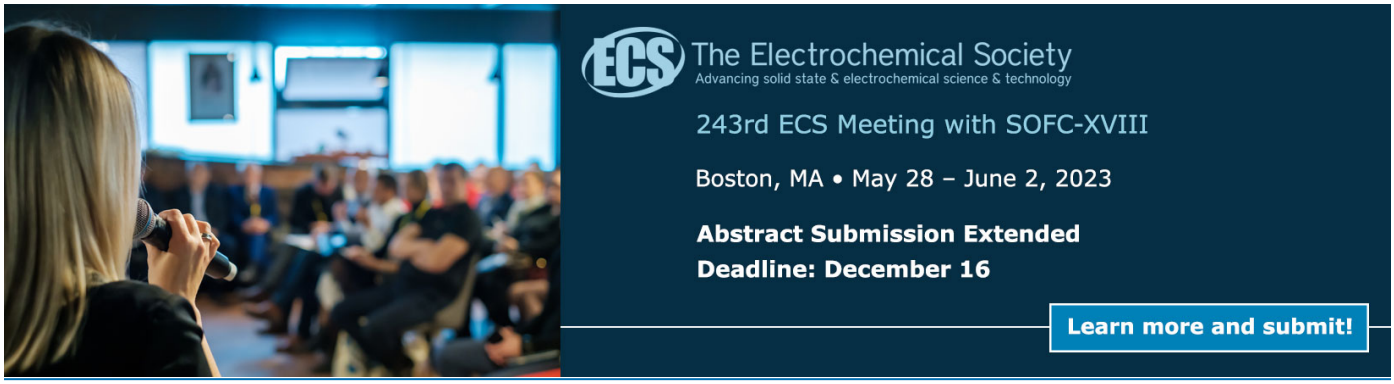
Public Acceptance Of Pedulilindungi Application In The Acceleration Of Corona Virus (Covid-19) Handling



Public Acceptance Of Pedulilindungi Application In The Acceleration Of Corona Virus (Covid-19) Handling

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Abstract. Coronavirus Disease (COVID 19) is a subject of ongoing scientific discussion in Indonesia and the world, COVID-19 confirmed cases continue to grow in Indonesia, this is influenced by the factor of the lack of more knowledge and awareness that some people have for the disease. Application PeduliLindungi was made by the Ministry of Communication and Information together with several state-owned agencies and Badan Usaha Milik Negara (BUMN) aimed at helping government agencies break the chain of transmission of COVID-19. Sample data from Technology Acceptance Model (TAM) is used to check the acceptance of the use of the application PeduliLindungi from 115 active respondents spread across Indonesia for analysis using SmartPLS. The analysis shows that the ease of use of the PeduliLindungi application greatly influences the usability and attitude in using it. The attitude in the use and usefulness of application PediliLindungi greatly influences the intention to use it. The use of the application PeduliLindungi has very little effect on the attitude to use it. In Conclusion the use of the applaication PeduliLindungi will increase because of the ease of use, it also indicates the level of acceptance of the application

1. Introduction

Corona virus happened in China in December 2019 for the first time, and rapidly spreading to more than 121 countries in the world including Indonesia. The Virus killed more than 4,000 people in China at that time. On Wednesday (11/3/2020) the World Health Organization (WHO) stated that the new type of corona virus causes Covid 19 to be a global pandemic [1],

PeduliLindungi application that is released by the Ministry of Communication and Information (Kominfo) in April 2020 to help people knew the existence of the suspect or the transmission of the virus zones at risk corona (Covid 19) is safe from bacterioa of phishing and malware, the Ministry of Communication and Information Technology (Kominfo) suggested people for downloading PeduliLindungi application.

The previous studies relating to the PeduliLindungi application talked about the contribution space technology on the PeduliLindingi application [2] there has never been much research that discusses related to the function of PeduliLindingi application in helping the acceleration of covid-19 handling by using the TAM model.

In the research by the Technology Acceptance Model (TAM Davis 1980) [3] in use to test the reception of a technology with variable involving four interlocking, namely : Ease of use, Usability, Attitude in the use and Intention to use[4]. So that this study can provide a better understanding from the perception of user and suggest to always using PeduliLindungi application whereever. Conceptual model based on the Technology Acceptance Model (TAM) as shown in Figure 1:

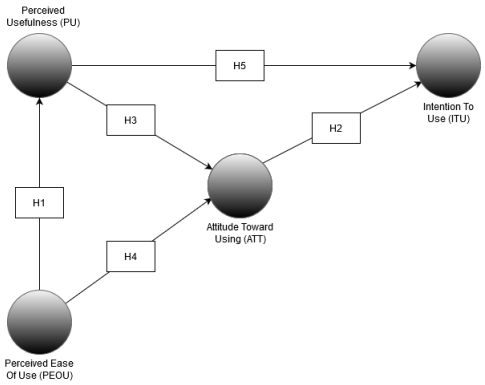

Figure 1. Conceptual Research Model

Based on the relationship of variables in the model, researchers formulate many as 5 hypotheses [4] [5] as follows : H1: Perceived ease of use (PEOU) is significantly positive and affects the perceived usefulness (PU), H2: Attitude towards use (ATT) is significantly positive and influences the intention to use (ITU), H3: Perceived usefulness (PU) influences attitudes towards use (ATT), H4: Perceived ease of use (PEOU) is significantly positive and influences attitudes toward use (ATT), H5: Perceived usefulness (PU) is significantly positive and influences intention to use (ITU).

2. Method

This study uses a quantitative approach where the approach is used to measure the relationship between variables whose values can be measured and can be analyzed. Researchers used the Patrial Least Square (SmartPLS) technique3.0) [6] [7]used to analyze the respondence data that has been collected. The research instrument was in the form of a questionnaire consisting of two parts namely demographic details of the respondents namely gender, age, education, occupation and other sections to measure ease of use (PEOU), Usability (PU), Attitude to use (ATT) and Intention to use (ITU) [8]. Measurement indicators use 5 Likert Scale [9], Scale 1 represents "strongly disagree" and Scale 5 represents "Strongly Agree". The questionnaire was created by using Google form and distributed via Whatsapp message.

The user of PeduliLindungi application are approximately 1 (one) million people. The population of this study is the community in various regions in Indonesia. The simple random sampling method used in this study and obtained 115 respondents consisting of 45.2% men and 54.8% women, with age under 30 years 42.6%, ages between 31 to 40 years were 39 , 1%, ages between 41 to 50 years by 13% and ages over 50 years by 5.2%. For top 4 education, 40.9% came from undergraduate education, 26.1 came from senior high school education, 13.9% came from post-graduate education, 12.2% came from third-level education (D3) and followed by education from Junior High Schools, Elementary School education and Doctoral Education (S3).

Table 1. Demographic Respondents.

No	Demographic Information	Frequency	Percentage
1	Gender		
	Male	52	45.20%
	FeMale	63	54.80%
		115	100%
2	Age		
	< 30 Years old	49	45.20%
	31-40	45	39.10%
	41-50	15	13%
	> 50 years old	6	5.30%
		115	100%
3	Education		
	D3	14	12.20%
	D4/S1	47	20.90%
	S2	16	13.90%
	S3	1	0.80%
	School	3	2.60%
	JSS	4	3.50%
	SLTA	30	26.10%
		115	100%
4	Profession		
	PNS/POLRI/TNI	19	16.50%
	Employee	39	33.90%
	Housewife	6	5.20%
	Student/Student	188	6.38%
	And others	33	38.02%
		115	100%

3. Result and Discussion

3.1. Construct Path Diagram Model

Before analyzing the data is to make the path diagram adopted based on the conceptual model [10] [4] used. The path diagram can be seen in Figure 2:

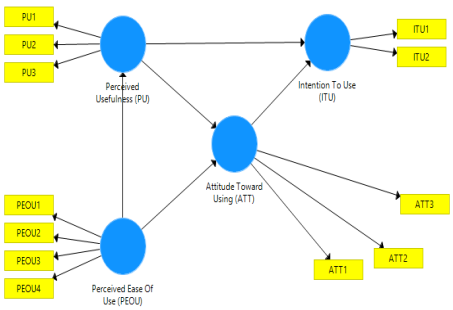

Figure 2. Path Diagram with valid Indicators

From Figure 2, there are four latent constructs which iscconnected with the purpose of describing the proven hypothesis. Relationships that occur from each latent construct will be measured through several tests, such as validity, reliability and hypothesis testing.

3.2. Measurement Model Evaluation

Table 2. Loading factors of the samples

	Attitude Toward Using (ATT)	**Intention To Use (ITU)**	**Perceived Ease of Use (PEOU)**	**Perceived Usefulness (PU)**
ATT1	0.865			
ATT2	0.895			
ATT3	0.954			
ITU1		0.949		
ITU2		0.947		
PEOU1			0.945	
PEOU2			0.938	
PEOU3			0.915	
PEOU4			0.835	
PU1				0.877
PU2				0.927
PU3				0.848

Table 3. AVE, Cronbach's Alpha and Composite Reliability

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Attitude Toward Using (ATT)	0.890	0.889	0.932	0.820
Intention To Use (ITU)	0.887	0.887	0.946	0.889
Perceived Ease of Use (PEOU)	0.929	0.931	0.950	0.827
Perceived Usefulness (PU)	0.861	0.876	0.915	0.783

From table 3, all the AVE values above 0.5 [11] so the model and the research instruments used in expressed valid, while in the case of value reliability test Cronbachs alpha and composite realibility above 0.7. [12] so the model and the research instrument used in expressed it is reliable, and could continue to the step of Experiment Hypothesis [13].

3.3. Hypothesis Evaluation

In this study, the hypothesis is accepted if it has a T Statistic more than 1.96 which obtained from the total respondents with 4 variables using the 0.05 reference [15]from T table. Based on the data in table 4 obtained four hypotheses were accepted and one rejected. And the uses of the attitude used was rejected.

Wong [14] recommended to do koefien bootstrap to test of each variable, following the calculation of bootstrap by smart PLS:

Table 4. Hypothesis Testing

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistic (| O / STDEV |)	P Values	Result
Attitude Toward Using (ATT) -> Intention To Use (ITU)	0.790	0.784	0.057	13.943	0.000	Accepted
Pereceived Ease of Use (PEOU) -> Attitude Toward Using (ATT)	0.754	0.740	0.081	9.291	0.000	Accepted
Pereceived Ease of Use (PEOU) -> Perceived Usefulness (PU)	0.595	0.607	0.119	5.020	0.000	Accepted
Perceived Usefulness (PU) -> Attitude Toward Using (ATT)	0.029	0.046	0.103	0.281	0.779	Rejected
Perceived Usefulness (PU) -> Intention To Use (ITU)	0.151	0.155	0.067	2.246	0.025	Accepted

3.4. Discussion

In table 4, the researchers conducted a hypothesis test that produced the effect of PEOU on PU and ATT with the ease of use factor that could improve use and attitude in the use of peduliLindungi Application. PEOU is a determining factor in usage [16] [17] [18] PeduliLindungi application, the level of ease the use of being an attraction for those who have not join or download the PeduliLindungi application

Researchers also get that PU can directly influence the intention to use and PU does not directly affect attitudes towards use [19] [16] in broad outline, the role of PU is also become a factor of influential to the expansion of PeduliLindungi application in Indonesian society during this pandemic.

ATT and ITU are also interconnected which are affected by PEOU and PU [19] [20]. In this research ATT and PU become supporting factor to the expansion of the PeduliLindungi Application so that PeduliLindungi application provides the right benefits for the community.

4. Conclusion

This study concludes that PEOU and PU are important predictor (3) [4] for PeduliLindungi application users, but ease of use is more dominant than the use of PeduliLindungi application. As a result, the user of the PeduliLindungi application will increase because the ease in the use of signifying the level of application acceptance.

This research still has many shortcomings, starting from the limited number of respondents collected, which has not yet become a strong number for the current situation considering that the transmission of Covid 19 continues to increase and needs to be studied further in

subsequent studies, this study also must add additional supporting variables so that the benefits user perceived and perceived can directly have a positive impact on other variable factors. Researchers hope that there will be further research that discusses the benefits of PeduliLindungi application and is further developed in order to gain public confidence in always using of PeduliLindungi application

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