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## SOCIAL ISOLATION AND ACCEPTANCE OF E-LEARNING IN THE TIME OF COVID-19 PANDEMIC

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### *Abstract*

*The COVID-19 pandemic has led to social distancing. However, with the help of technology, the education world can get through this difficult time through virtual learning methods (e-learning). The aim of this study was to show how well the UTAU framework explains the behavioral drivers of e-learning system use by adding relevant variables, namely the moderating effects of social isolation and corona fear. This study takes accounting students as a sample and adopts a targeted sampling method. The sample size is 203 respondents, but eligible individuals can only process 195 samples. This study uses a quantitative method using the data analysis technique of SEM-PLS by WarpPLS 7.0 software. The results of the study showed that the variables of PE, SI, FC and Social Isolation are proven to have an effect on the intention to use e-learning among accounting students. Meanwhile, the EE variable was not proven to be supported as the effect on the intention to use e-learning. The results of the Corona Fear modification as a moderating variable has been shown to strengthen the relationship between PE, EE, and FC variables on intention to use e-learning.*

**Keywords:** *e-learning, UTAUT, Corona fear, Social Isolation.*

### INTRODUCTION

Since the emergence of the 2019 Coronavirus Disease (COVID-19), the government has been forced to curb the spread of cases, such as Large-Scale Social Restrictions (PSBB), regional lockdowns, social isolation, and work from home (WFH). Before the learning pandemic, Indonesia was still implementing a full face-to-face system in place. The lecture system had to switch to an e-learning method online in order to follow government guidelines. E-learning systems are flexible in terms of location and can study anytime, anywhere. For students, the presence of e-learning can create a spirit of learning autonomy. Students can express comments or questions at any time through

the personal chat. For lecturers, e-learning systems can enhance the professionalism of their work, as lecturers can use their time for research. However, some references suggest that the learning success rate of e-learning-based students is still low 1.

Students encounter several obstacles in the transition from online lecture methods. Many students do not understand the material, difficulties in practicum courses, low levels of concentration, lack of discipline, a large risk of cheating, and many other impacts. From this it can be concluded that the success of learning media depends not only on the technical aspects but also on the individual characteristics of each student. Researchers examine issues affecting e-learning



adoption from the perspective of accounting students during the COVID-19 pandemic.

For accounting students, the courses is more diverse, which is the challenge of adapting to e-learning. As with quantitative learning, it is easy for lecturer to provide calculation examples through the blackboard media, but this is not easy when everything has to be done online. In the practical courses (ERF Accounting, ERF Fundamentals, Computer-Based Accounting), it is of course easier if face-to-face. This then becomes the basis for researchers' considerations to assess the acceptance of e-learning in case studies of students majoring in accounting only.

The use of the e-learning system has been used by all universities in Indonesia because of the impact of COVID-19, but the application of learning methods using e-learning is not an easy thing, besides the investment required is quite large, there are still several problems that can be an obstacle. of the success of users of this learning method. One of these obstacles is the problem of student acceptance of the use of e-learning. This study is intended to look at the factors that influence student acceptance of the use of e-learning from the perspective of accounting students, by adopting the UTAUT model. UTAUT theory is considered capable of explaining the behavior of technology users by 70% compared to other models (Venkatesh et al., 2016).

The Unified Theory of Acceptance and Use of Technology (UTAUT) model is an improvement from the eight predecessor models (Venkatesh et al., 2016). The UTAUT constructs used are: Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Facilitating Conditions (FC), Intentions to Use, and Behavioral Use where the estimated

constructs in this study will have a positive effect. on behavioral intentions to use e-learning systems. The variable Social Isolation (SIS) was added because the study predicts that social isolation will have a positive effect on behavioral intentions to use the e-learning system. Corona Fear (CF) is treated as a moderating variable because the study predicts the effect of corona fear will strengthen or weaken the use of e-learning systems

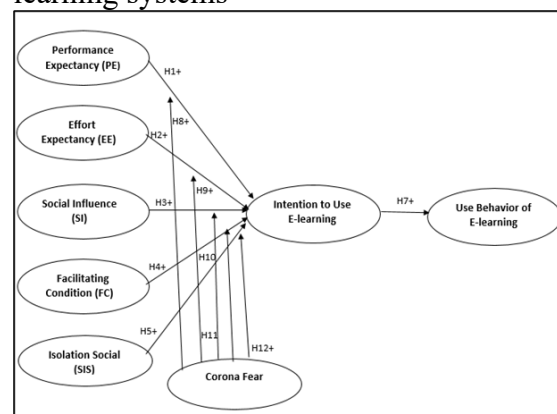


Figure 1. Research Framework

## RESEARCH METHOD

### Population and Sample

The population in this study were students majoring in accounting who were conducting online lectures from 2016 to 2019. The type of sampling used was purposive sampling. The sample in this study amounted to 195 respondents.

### Data Collection Technique

Primary data used in this study. Google forms are used by researchers in the creation, distribution and collection of data in this study. Questionnaire links were distributed to respondents via WhatsApp, Facebook groups, and direct messages on Instagram. The criteria that must be met are that the prospective respondent is a student majoring in accounting who has studied at least two semesters before taking online or



online lectures, and is currently taking or currently taking quantitative courses online.

### Definition of Variable Operational

Table 1. Definition of Variable Operational

Variable	Definition of Operational
<i>Performance Expectancy</i> (PE)	The level of confidence of users of the e-learning system on the ability of the e-learning system to provide benefits to education.
<i>Effort Expectancy</i> (EE)	The ease of use of the e-learning system will provide comfort for users.
<i>Social Influence</i> (SI)	Users perceive the e-learning system according to their values and will enthusiastically accept and use the e-learning system.
<i>Facilitating Conditions</i> (FC)	Conditions that facilitate the e-learning system can be in the form of technical support, administration, knowledge, and other resources.
<i>Intention to Use</i> (ITU)	The nature of the individual's intention in the e-learning system and the belief that the use e-learning system will provide many benefits and use it continuously.
<i>Use Behavioral</i> (UB)	The frequency of using the e-learning system is highly dependent on user evaluation.

Variable	Definition of Operational
<i>Social Isolation</i> (SIS)	Circumstances that people socially isolated are, due to the impact of the COVID-19 Pandemic thereby stimulating someone to take online classes.
<i>Corona Fear</i> (CF)	Unexpected and extraordinary situations such a disease outbreak can caused fear among people, and this is one of the psychological aspects from the COVID-19 pandemic.

### Analysis Technique

The data analysis technique in this research is SEM (Structural Equation Modelling) using WarpPLS 7.0 software. Measurement in PLS starts from the measurement of the model (outer model), model structure (inner model) and hypothesis test.

### RESULT AND DISCUSSION

The purposive sampling method was used in this study with the following criteria:

Table 2. Distribution of respondents by batch year

Batch year	Number of Respondents	Percentage
2019	82	42,05%
2018	50	25,64%
2017	17	8,72%
2016	48	23,59%
<b>Total</b>	<b>195</b>	<b>100%</b>

Based on Table 2, respondents who filled out the 2019 batch of questionnaires



dominated, which amounted to 42.05% of participants from the 2019 batch.

Table 3. Educational Stage

Status	Number of Respondents	Percentage
S1	161	82,56%
S2	34	17,44%
<b>Total</b>	<b>195</b>	<b>100%</b>

Based on Table 3, respondents filling in the questionnaires for undergraduate accounting students dominate, as many as 161 or 82.56% of participants are undergraduate students. This is presumably because the population of undergraduate students is more than the population of master students.

Table 4. Understanding Level of Quantitative Courses

Understanding	Number of Respondents	Percentage
Difficulty	163	83,59%
Easy	37	16,41%
<b>Total</b>	<b>195</b>	<b>100%</b>

Table 4 shows that participants who have difficulty understanding the quantitative subjects dominate. Participants who revealed that they had difficulty understanding were 163 respondents or 83.59%. Students experiencing difficulties can be caused by various reasons. The bad signal so that the lecturer's explanation falters became the main cause, and due to the lack of direct interaction like in conventional classes.

### Outer Model Evaluation: Convergent Validity Test

Table 5. Outer Model Evaluation: Convergent Validity Test

Indicator	Loading Factor	P-value	Resume
PE1	0,889	<0.001	Valid
PE2	0,881	<0.001	Valid
PE3	0,885	<0.001	Valid
PE4	0,839	<0.001	Valid
EE1	0,766	<0.001	Valid
EE2	0,845	<0.001	Valid
EE3	0,751	<0.001	Valid
EE4	0,868	<0.001	Valid
SI1	0,837	<0.001	Valid
SI2	0,857	<0.001	Valid
SI3	0,902	<0.001	Valid
FC1	0,829	<0.001	Valid
FC2	0,820	<0.001	Valid
FC3	0,707	<0.001	Valid
FC4	0,710	<0.001	Valid
SIS1	0,917	<0.001	Valid
SIS2	0,921	<0.001	Valid
SIS3	0,403	<0.001	Not valid
SIS4	0,338	<0.001	Not valid
SIS5	0,830	<0.001	Valid
CF1	0,712	<0.001	Valid
CF2	0,844	<0.001	Valid
CF3	0,886	<0.001	Valid
CF4	0,848	<0.001	Valid
CF5	0,861	<0.001	Valid
CF6	0,708	<0.001	Valid
ITU1	0,892	<0.001	Valid
ITU2	0,940	<0.001	Valid
ITU3	0,894	<0.001	Valid
ITU4	0,867	<0.001	Valid
UB1	0,826	<0.001	Valid
UB2	0,438	<0.001	Not valid
UB3	0,907	<0.001	Valid
UB4	0,919	<0.001	Valid

The size of the reflexive indicator is said to be high if the correlation value is > 0.70. Based on these considerations, indicators that have a loading factor value of < 0.70 are omitted in order to obtain good validity and reliability values. Furthermore, the researchers tried to eliminate the indicators for SIS 3, SIS 4 and UB2 because



indicators are not valid yet, so that all other indicators are valid.

### Discriminant Validity

Table 6. Discriminant Validity

	PE	EE	SI	FC	SIS	CF	ITU	UB
PE	0.874							
EE	0.610	0.809						
SI	0.498	0.720	0.866					
FC	0.598	0.725	0.678	0.768				
SIS	0.273	0.379	0.378	0.345	0.890			
CF	0.284	0.445	0.473	0.441	0.452	0.813		
ITU	0.592	0.566	0.468	0.623	0.400	0.418	0.899	
UB	0.738	0.593	0.498	0.610	0.357	0.406	0.830	0.885

Based on the results of the discriminant validity test which shows the AVE value of each variable is greater than the other variables, it is concluded that the discriminant validity in this study already filled up the requirements of discriminant validity.

### Reliability Test

#### Composite Reliability and Cronbach's Alpha

Table 7. Composite Reliability and Cronbach's Alpha

Latent Variable	Composite Reliability	Cronbach's Alpha	Status
PE	0.928	0.896	Reliable
EE	0.883	0.822	Reliable
SI	0.9	0.832	Reliable
FC	0.852	0.766	Reliable
SIS	0.92	0.868	Reliable
CF	0.921	0.895	Reliable
ITU	0.944	0.92	Reliable
UB	0.916	0.861	Reliable

In this study, the value of CR >0.7, which means it is very reliable. The reliability test can also be strengthened by looking at the value of Cronbach's alpha. The expected value of Cronbach's alpha is >0.6 (Ghozali & Latan, 2015). Table 7 presents the Composite Reliability and Cronbach's Alpha values.

### Structural Model Evaluation (Inner Model)

The next stage is to test the inner model. The test is carried out before interpreting the results of hypothesis test, the model must have a good Goodness of Fit.

Table 8. Structural Model Evaluation (Inner Model)

	Index	P-values	Criteria	Description
APC	0.236	<0.001	<0.05	Accepted
ARS	0.547	<0.001	<0.05	Accepted
AVIF	4.771		AVIF <5	Accepted

The output results explain that APC has an index of 0.236 with a p-value <0.001 and ARS has an index of 0.547 with a p-value <0.001. Based on the existing criteria, APC already filled up the criteria because it has a p-value <0.005. Likewise with ARS, it filled up the criteria because the p-value <0.05. The AVIF value is 4,771 with the required criteria <5, meaning that the AVIF value has been met. Thus, over all the inner model is acceptable.

### Hypothesis Test

Hypothesis testing in WarpPLS analysis uses statistical t-test. The following are the results of calculations for hypothesis test:

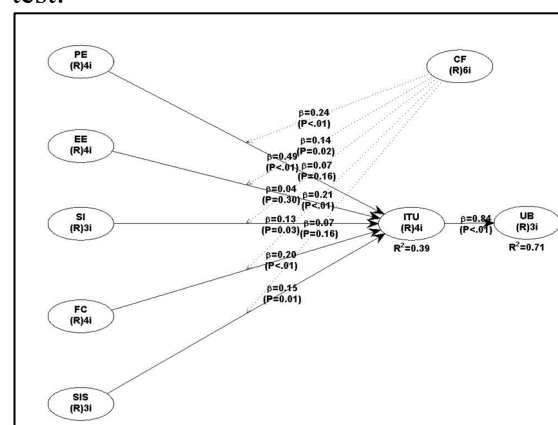


Figure 2



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## Discussion:

### **H<sub>1</sub>: Performance Expectancy has positive effect on the intention to use e-learning**

Performance expectancy has a positive effect on the intention to use e-learning seen from the p-value <0.001. E-learning is believed to support the learning system by new methods to improve the performance of accounting students. The presence of e-learning is able to provide benefits for its users.

### **H<sub>2</sub>: Effort Expectancy has positive effect on the intention to use e-learning**

Judging from the value of sig. or p-value= 0.300 Hypothesis 2 is not supported. Researchers suspect that this happens due to the effort expended by students to use a system is high. This could be due to the fact that use e-learning system does not provide convenience in learning activities, thus increasing the effort that must be expended to take online lectures.

### **H<sub>3</sub>: Social Influence has positive effect on the intention to use e-learning**

The analysis carried out shows the value of sig. or p-value= 0.029 which means that hypothesis 3 is declared supported. The results of this study are consistent with that of 2 who found that IS has a positive effect on intention to use a system. The role of parties is able to effect on the intention to use e-learning systems among accounting students. Researchers suspect that this happened because of requests from campuses, lecturers and other interested parties to use e-learning system to support the learning system during the COVID-19 pandemic.

### **H<sub>4</sub>: Facilitating Conditions has positive effect on the behavioural intention to use e-learning**

Sig value. or the resulting p-value is 0.002, which means <0.05. These results are consistent with the research conducted by 3 and 4 which explains that the facilitating situation has a positive effect on the acceptance of a system among students. The facilities owned by students in supporting virtual-based learning are very important. With the availability of owned resources, knowledge, and training are important factors in effecting on the intention to use e-learning systems.

### **H<sub>5</sub>: Social Isolation has positive effect on the behavioural intention to use e-learning**

From the results of the analysis conducted, it is shown that hypothesis 5 is supported that Social Isolation is able to have a positive effect on the intention to use e-learning. sig value. or the resulting p-value is 0.014, which means <0.05. These results are consistent with research conducted 5 which proves that social isolation is proven to have a positive effect on students' intentions to use e-learning system.

Students who are socially isolated will be motivated to use the new system to support their recovery process. The COVID-19 pandemic has forced everyone to stay at home and avoid crowds, in line with this, to continue lecture activities, intention to use e-learning system has also increased.

### **H<sub>6</sub>: Intention to use e-learning has positive on the use behavioral e-learning**

From the results of the analysis conducted, it is shown that hypothesis 6 is supported that the intention to use e-learning is able to have a positive effect on the behavioral to use e-learning sig value or



the resulting p-value is  $<0.001$ , which means  $<0.05$ .

Students who have a high intention to use e-learning system will be positively effected to actually use the system on an ongoing basis. Students who believe that a system can provide many benefits then intend to use the system continuously.

### **Effect of moderation *Corona Fear* on the relationship between *Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, and Social Isolation to the Intention to Use E-learning***

Turning to the results of the moderating variable, it is shown in Figure 2 that the hypothesis about Corona fear as a moderator turned out to have a positive effect on the variables of performance expectancy (PE), effort expectancy (EE), and facilitating conditions (FC) on the intention to use e-learning. Then it proven that the hypothesis H7, H8, and H10 are supported. This findings showed that when students perceive performance expectations that can improve their performance, it will also increases students' intention to use e-learning system.

### **CONCLUSION**

1. The findings show that performance expectancy, business expectancy, social influence, facilitation conditions, and social isolation are important factors that influence students in accounting majors to use the e-learning system, while business expectancy has no effect. These results indicate that students will be willing to use the e-learning method to continue their studies because of their perception of the benefits provided by the e-learning

system during social isolation during the COVID-19 pandemic.

2. The results of the modification of corona fear as a moderating variable reveal that increased fear among students about the Corona virus will strengthen the relationship between business expectations, performance expectations and conditions that facilitate the intention to use e-learning.
3. In addition to improving student learning efficiency, students will be motivated to achieve their learning goals through the use of e-learning, especially when they are socially isolated due to the COVID-19 pandemic. Therefore, for the intended purpose of using e-learning systems, improving e-learning systems should be a priority, as students are more likely to adopt technology if they find it simple and useful. So, the benefit of using e-learning systems in the midst of a pandemic is that students have flexibility in the future when educational institutions are closed.
4. It is recommended that colleges and universities offer online courses. There is no space barrier, and the time is flexible. Those who are employed, married, or living far away can continue to attend the courses. Another advantage is that it allows a centralized collection of information. E-learning systems allow students to store all their information in one place (website) and students can access it anytime and anywhere using a compatible device.

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