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The Students' Ethics, Trust and Information Seeking Pattern During COVID-19 Pandemic

DOI: 10.15804/tner.2022.67.1.05

Abstract

The aim of this study is to examine how ethics influence students' cognitive and affective-based trust during COVID-19 pandemic and explore their information seeking activity when faced with limitations learning process. The sample consists of 610 participants through a survey study with Structural Equation Modeling to test the research hypotheses. We found both ethics has positive and significant effect to trust (e.g., cognitive- and affective-based trust), which subsequently positively effects on information seeking among students' toward Facebook as a tool to promote their activities, The recent study's has contributed to the academic field shows that Facebook is a tool for communication and interaction with others by seeking information, which ethics and trusts an essential exogenous factor. In practical area, education stakeholders' should address and identify their students' to improve their learning performance. Also, it should focus on enhancing the contents and processes of its students' interactions to foster communication and value propositions in creating unique and valuable experiences. .

Key words: *Ethics, trust, information seeking, social media.*

Introduction

The COVID-19 pandemic has been forcing teachers and students stay health and safe in their home with social media as a communication platform. Education sector needs online activities such as Facebook, Instagram, and WhatsApp. The social media users' come from across the cultures, ethics, languages, and region. It makes social media has crucial role to provides information among users (Al_Zaman, 2021; Huk, 2021). They communication and interaction based on ethics standard. In addition, ethics has crucial role among users, to seek information (Baron-Polańczyk, 2021; Watson & Payne, 2020). Recently, the juvenile generation is the biggest social media users worldwide. It has been affected their behaviors to shift from traditional education channels to new social media platforms. Some studies confirmed that social media have contribution to support learning process. It increases scholars concern about the students' communication patter such as Amzalag et al. (2021) and Iglesias-Pradas et al. (2021). However, lack of study validates the students' ethics and trust in their communication and interaction. Moreover, prior studies also avoid confirming the concept of ethics and trust. It has a crucial role to influence students' communication. Besides, prior studies are only based on developed and Western countries. Hence, different case studies and mechanism is worthy of validating. It possibly provides information and enlightens the decision-making process for education field. Hence, there is a need for a comprehensive study among observed variables. This study also extends the concept uses and gratification theory (U&G).

Problem of Research

Students use social media as a communication tool, therefore emphasis on the ethics of interaction and communication is important in finding and seeking information. Nevertheless, they must be observant in taking or using information that is in accordance with ethics. Some false information can influence the student level of trust, which subsequently, the intention of use Facebook as communication tool and source of information will decrease. Preliminary studies found communication ethics has crucial role to affect student trust, which subsequently influence information seeking frequent among student (Holmes et al., 2021; Junaidi et al., 2020). However, some of the weaknesses of previous research only emphasize communication and information without paying attention to language ethics according to rules such as conveying information, and giving correct responses. Hence, the goal of this study is to validate students' communication

during COVID-19 based on ethics, trust and information seeking contexts toward questions:

RQ1: Does communication ethics affect students' confidence levels?

RQ2: Does communication ethics affect the level of information seeking?

In answering these questions, the recent studies provide several theoretical and practical contributions. First, the recent study links to students' ethics and trust (e.g., cognitive and affective-based trust) in the context of education. Second, with exception lack of studies, prior studies neglected the role of ethics to validate student' trust and information seeking activity. The popularity of social media among users, which applied as communication and learning tools, facilitates students' to connect and seek information, as well as develop relationship for education purpose. Hence, ethics, trust, and information seeking worthy to examine. Finally, this study also investigates the relationship between ethics and trust among students'. Over a decade, students collaborate with others to seek information. However, few literatures to elaborate the correlation between ethics, trust, and information seeking simultaneously is rarely.

Research Focus

Facebook is a tool to support students' learning process, specifically during COVID-19 pandemic (Iglesias-Pradas et al., 2021) through their willingness to engage and interact with others, all of which are affected by ethics (Amzalag et al., 2021; Holmes et al., 2021), trust (Ervasti et al., 2019; Shateri & Hayat, 2020). It is common among users who use Social Media as online discussion groups to enhance their performance and learning process.

Theoretical background and hypotheses

Student Ethics

Ethics is a fundamental nature or habits as life guidelines for people. The principle of ethics commonly comprises of two essential elements, namely good and bad. It provided specific norms and morals rules, as well as positive thinking. In education context, some scholar worried to see some phenomenon as consequences of the students' ethics such as their communication and interaction pattern, with the ethics they bring to community (Holmes et al., 2021). Learning and others education process are now all conducted online and it appears that

they will be conducted the imaginable future. Hence, it is worthy to examines this phenomenon, particularly since learning is increasingly conducted online and especially during the COVID-19 pandemic. The good habits may help students' live more safely and peacefully and vice versa. It shares many ethical principles with the humanity context, such as freedom, justice, honesty, trustworthiness, and care for the weak people.

Education must be able to build the students' ethics who the community can accept. For instance, students must be able to commination with the suitable language (e.g., honest, respect, and empathy). Hence, they not only obtain knowledge and skill, but also solve a social problem. Some prior studies concluded that ethics has strong correlation with trust (Amzalaq et al., 2021; Holmes et al., 2021; Watson & Payne, 2021). Hence, student ethics has an essential role to trust. Accordingly, the following hypotheses were proposed:

- H1. Student ethics has significant role to (a) cognitive-based trust, (b) affective-based trust.

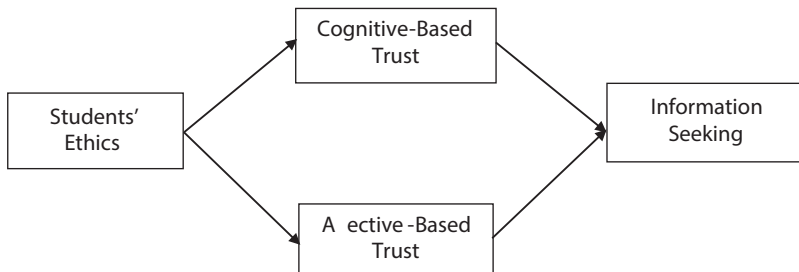


Figure 1. Proposed Model

Trust

Trust plays an important role to maintain social interaction, as well as develop harmony on communication and interaction toward cognitive and affective-based dimensions (Lewis & Weigert, 1985; McAllister, 1995). Cognitive-based trust refers to logical characteristics (e.g., competence, reliability and responsibility), meanwhile affective-based trust has strong correlation with emotional components (e.g., care and concern for others' welfare) (McAllister, 1995; Punyatoya, 2018). It is potentially to strength social relationship (Ervasti et al., 2019). Trust is an important factor in the creation of collaboration between parties that results in positive outcomes such as information seeking due to its competence, benevo-

lence, integrity and predictability of users' (Vanhala, 2020). It leads pursue the people to build a partnership in both offline and online (Ahmed et al., 2019). It evokes information seeking activity. The common goals and same characteristics on SNSs, students' endorsements of trust increase information seeking. SNSs are useful platforms for information seeking. Facebook users ask for information or support to maintain weak ties with others for sharing their interests, mutual friends, or relational goals. Students rely on ethics for their social behaviors of information-seeking which is an important reason for social media use (Hamid et al., 2016; Kim et al., 2014). They use social media for entertainment, expression of opinion, information seeking, and social interaction with others (Hamid et al., 2016, Kim et al., 2014; Wang et al., 2016). Hence, we propose that cognitive-based trust and affective-based trust contribute to knowledge sharing behavior through the following hypotheses.

- H2. Cognitive-based trust has a significant and positive effect on information seeking.
- H3. Affective-based trust has a significant and positive effect on information seeking.

Methodology of Research

Sample and data collection

The target population of this study was Indonesian college students who active in using Facebook as a tool in forum discussions. This online survey was carried out using Google Forms, which lasted from June 1 to August 30, 2021 toward purposive sampling. Subsequently, this study conducted a pilot test to identify various responses, implications, difficulties, attentiveness, and kindness related to the questions. It was used to ascertain whether the students' understood each of the questions and revised wordings to prevent single-source bias (Podsakoff *et al.*, 2003). Conversely, various control and filter questions were anonymous, and random constructs were carried out to avoid bias and ensure the survey is valid. For post-detection procedures, this study applied Harman's single-factor test (Eichhorn, 2014) and the common latent factor (CLF). The rationale for adopting the CLF is to conduct post-detection which is the inherent weakness of Harman's single factor test to detect the CMV (Eichhorn, 2014). The explained variance of the first factor was 45.25% which is less than 50.00%. Besides, the factor loading of CLF was 0.48, which indicated a 35.67% variance of CMV. The result showed

no significant problem of CMV in this study. There were 518 valid samples out of 610 samples, indicating a completion rate of 84.91%.

Table 1. Respondent demographics

Demographic Items	Frequency	Percentage (%)
Gender		
Male	204	39.4
Female	314	60.6
Age		
Under 20 years old	350	67.6
21~25 years old	122	91.1
26~30 years old	46	8.9
Time period of using social media		
Below 4 years	162	31.51
4~7 years	168	32.69
7~10 years	184	35.80

Measures

The students' cognitive-based trust (e.g., students' competency, integrity and goodwill), affective-based trust (e.g., students' psychology, reciprocity and skills) regarding interpersonal care and concern, and information seeking behavior. Within the questionnaire, a seven-point Likert scale was anchored between 1 ("strongly disagree") and 7 ("strongly agree") for all scale items. Students' ethics refers to Cohen and Cornwell (1989), cognitive-based trust and affective based trust were adapted from Yeh and Choi (2011) with six items for each construct. Information seeking was adapted from Junaidi et al. (2020) with seven items.

Data Analysis

The data were analyzed using two statistical programs, namely SPSS 22 and AMOS 22 software. Furthermore, hypothesis testing was carried out by applying the structural equation model (SEM). The main advantage of using SEM is because it facilitates the separate use of factor and regression analyses to test the model. According to Byrne (2016), SEM provides two essential aspects of the procedure. First, it is used to determine the causal effects of the observed variables, and (b) the structural relations among variables enable a clear description of the theory examined in this study.

Results of Research

Pilot study and descriptive statistic

The Means and standard deviations were adopted in this study to validate the subjective data and compare the variables that were initially observed in the first step (Byrne, 2016; Hair Jr et al., 2019) see Table 2.

Table 2. Correlation matrix for measurement scales

Constructs	Mean	SD	ER	CT	AT	ISE
SE	5.72	0.55	0.730			
CT	5.19	0.84	0.446**	0.715		
AT	5.66	0.54	0.431**	0.624**	0.717	
ISE	5.52	0.70	0.577**	0.521**	0.493**	0.794

Note: SE: Student ethics, CT: Cognitive-based trust, AT: Affective-based trust, ISE: Information seeking

SD: standard Deviation

Diagonal elements are the square roots of the AVE for each construct

Pearson correlations are shown below the diagonal

Significant at *: $p < 0.05$, **: $p < 0.01$, ***: $p < 0.001$

Measurement model

Table 3 shows the CFA model reproduces the covariance matrix of the observed variables with an adequate fit to continue the study (Hair Jr et al., 2019).

Table 3. Measurement results

Constructs	MLE estimates factor loading/ measurement error	Squared multiple correlation (SMC)	Composite reliability (CR)	Average of variance extracted (AVE)	Cronbach's α
Students' Ethics			0.831	0.551	0.880
SE1	0.946	0.105	0.895		
SE2	0.949	0.099	0.901		
SE3	0.814	0.337	0.663		
Cognitive-based trust			0.881	0.553	0.890
CBT1	0.764	0.416	0.584		
CBT2	0.774	0.401	0.599		

Constructs	MLE estimates factor loading/ measurement error		Squared multiple correlation (SMC)	Composite reliability (CR)	Average of variance extracted (AVE)	Cronbach's α
CBT3	0.750	0.438	0.563			
CBT4	0.771	0.406	0.594			
CBT5	0.747	0.442	0.558			
CBT6	0.649	0.579	0.421			
Affective-Based Trust				0.881	0.553	0.880
ABT1	0.946	0.105	0.895			
ABT2	0.949	0.099	0.901			
ABT3	0.783	0.387	0.542			
ABT4	0.783	0.387	0.613			
ABT5	0.659	0.566	0.434			
ABT6	0.750	0.438	0.563			
Information Seeking				0.876	0.501	0.888
ISE1	0.725	0.474	0.526			
ISE2	0.710	0.496	0.504			
ISE3	0.709	0.497	0.503			
ISE4	0.708	0.499	0.501			
ISE5	0.698	0.513	0.487			
ISE6	0.699	0.511	0.489			
ISE7	0.707	0.500	0.500			

Fit statistics (N = 518)

$\chi^2/df = 3.871$, Goodness-of-Fit Index (GFI) = 0.864, Nonnormed fit index (NFI) = 0.924, Comparative Fit Index (CFI) = 0.942, Incremental fit index (IFI) = 0.942, and Root Mean Square Error of Approximation (RMSEA) = 0.075

Table 4. Proposed model results

Hypotheses	Symbol	Path	Coefficients	Test results
H1	γ_{11}	Students ethics → Cognitive-based trust	0.239***	Supported
H2	γ_{21}	Students ethics → Affective-based trust	0.255***	Supported
H3	β_{31}	Cognitive-based trust → Information seeking	0.215**	Supported
H4	β_{32}	Affective-based Trust → Information seeking	0.435***	Supported

Note: Significant at *: $p < 0.05$, ***: $p < 0.01$, ****: $p < 0.001$

Mediating effect

The mediation effect study were adopted from Hayes (2018) with 95% confidence interval (CI) with 10,000 bootstrapped samples to test the role of cognitive-based trust and affective-based trust to mediate students' ethics and information seeking activity. Table 5 shows the partial mediator of variables (e.g., cognitive- and affective-based trust) between students' ethics and information seeking activity during the COVID-19 pandemic.

Table 5. Mediation effects

IV	M	DV	IV->DV (c)	IV->M (a)	IV+M->DV		Bootstrapping 95% CI	
					IV (c')	M(b)	Percentile method	Bias-corrected
SE	CBT	ISE	0.547***	0.528***	0.340***	0.393***	[0.138, 0.287]	[0.142, 0.283]
Standard Error	0.048	0.051	0.051	0.050				
SE	ABT	ISE	0.633***	0.563***	0.438***	0.347***	[0.135, 0.256]	[0.147, 0.270]
Standard Error	0.040	0.046	0.045	0.047				

Note: ER: Extrinsic religiosity, IR: Intrinsic religiosity, ET: Student Ethic, MR: Student Moral, MH: Student Mental Health

Significant at *: $p < 0.05$, **: $p < 0.01$, ***: $p < 0.001$

Discussion

Key findings

It can be seen in Table 4, respects among students and work collaboration have crucial role to their behaviors regarding cognitive-based trust (e.g., capability, skills, knowledge and expertise) and affective-based trust (e.g., communication and interaction) to seek information cheaper and faster in social media. As mediator variables, trust also has essential role to mediate relationship between ethics and information seeking (Table 5). The results were consistent with the findings of prior studies in education contexts (Hamid et al., 2016; Kim et al., 2014). It implies ethics and trust strengthens the positive effects of users to communicate and seek information when interact with their friends. It is crucial to accurately disseminate interaction attitude to students through social connections in social media. This result overthrows the communication methods and patterns of traditional inter-

action. This study also suggests that universities leaders, lecturers, and students need to build respect each other to support learning process, which could enhance promoting effective communication and interaction.

Conclusions

Ethic and trust is a significant and psychological construct that needs to be explored more frequently by studies on the education field. This is because the learning process requires the combination of specific skills and knowledge (e.g., communication and interaction) to seek credible information. Hence, this study provides one of the first investigations into the ethics, cognitive and affective-based trust dimensions, which have to distinguish role to influence students' attitude and behavior in the response of limitation learning process during COVID-19 pandemic. The Facebook possibly facilitate users to seek information with different purposes and ways through online communication and interaction. They contribute the formation and maintenance of virtual communities' relationships through ethics, trust, sense of communion, and sociability which subsequently influence information seeking.

There are some limitations to this study. First, the current study was limited to the Indonesian students'; therefore, the result is not generalized. Future study needs to include another region to encourage a better conclusion. Second, different collecting data method could be used in future research to better reflect the population composition. Therefore, future research may investigate the role of education and government via quantitative and experimental investigations.

Academic implications

This research contributes to the literature toward validates the relationships between ethics, cognitive-based trust, affective-based trust, and information seeking based on the education field. The findings confirmed, building cooperation and relations based on social networks connectedness concept, this research demonstrates that trust drives individuals to participate in SNSs and influences their information seeking behavior. The recent study also contributions to the literature on the virtual community in two ways. First, this study investigated the relationships between trust and the dimensions of trust (affective-based trust and cognitive-based trust) and information seeking. This research's findings validate the effects ethics on trust (e.g., cognitive- and affective-based trust), which subsequently influence students' seeking information activity on Facebook. Second, this

research shows that trust partially mediate student ethics and information seeking in an education context. Few studies investigate the relationships among these variables. Hence, our findings provide a theoretical ground for future research.

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