Influence Of Overload Information About COVID-19 Pandemic On Internet For Psychological Illnesses And Behavioral Intentions To Continue Searching For Information

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Abstract. Information about COVID-19 is now very easily accessed on the Internet, even too much. The phenomenon of excessive information obtained can also be linked to psychological illnesses and obtain information retrieval. This article conducts research about information overload about the psychology of information seekers and their protection. The study used the TAM method with SEM tools with 380 respondents. The results of the study show that excessive online information about COVID-19 has a positive influence on the psyche and affects the relationship of information seekers not to continue the search results.

1. Introduction
The World Health Organization (WHO) announced that COVID-19 as a pandemic science March, 11 2020[1]. The pandemic make fear, the lock-downs consequences, anxiety and stress have been higher. these affect over all individuals and society[2–4] included individual with existing mental health[5]. Generally, people search online information about health to stay inform about preventing and more understanding about some diseas, and to search about diseas treatment[6], include COVID-19 information. When a lot of information available, Its leads ‘information overload’ phenomenon that people receiving information more than capacity that cause brain cannot handle and process information that received[7]. In some researchers article, issue that related with people who searching information is associated significantly with perceived information overload phenomenon[8]. Information overload influences people to action, are people keep processing and searching or enough with it. At the time when information that received more than capacity of information process, people that process filter information clearly, will very picky and felt confused to digest the whole prespective[5]. This problem can be launched psychological disease in individuals who are searching for information, and can have negative effects and circumstances that cause explicit psychological health. Behavioral attention to continue information searching designated from one of the factors in the Technology Acceptance Model where the level of use of a technology or information affect user attitude towards the informations, include user’s desire to continue to access the information[9]. Some research show how online public information about pandemic and health overload can influences individual people behavioral intentions and psychological ill-being for continue to use information.
even if it had a bad effect [10].

This research investigates how the online pandemic information is get in touch with information seeker’s behavioral intention and psychological illness to continue pandemic COVID-19 information searching. Information processing theories for research model was validated using PLS – SEM. The result will shows impact of searching online research behavior make them to stop pandemic research[11].

Research model applied to figure 1 consists of six variables. Three of them relate to information seekers, psychological ill-being and behavioral intention to continue COVID-19 information searching.

Figure 1. Research Model

From the research model above, there are 8 hypotheses developed:
Hypothesis 1: receive online pandemic COVID-19 information too much is related with negative affect positively.  
Hypothesis 2: receive online pandemic COVID-19 information too much is related with depressive symptoms positively.  
Hypothesis 3: receive online pandemic COVID-19 information too much is related with trait anxiety positively.  
Hypothesis 4: receive online pandemic COVID-19 information too much is related with trait anger positively.  
Hypothesis 5: trait anger is related with behavioral motivation to continue online pandemic COVID-19 information searching negatively.  
Hypothesis 6: Negative affect is related with behavioral motivation to continue online pandemic COVID-19 information searching action negatively.  
Hypothesis 7: Depressive Symptoms is related with behavioral motivation to continue online pandemic COVID-19 information searching negatively.  
Hypothesis 8: Trait anxiety is related with behavioral motivation to continue online pandemic COVID-19 information searching negatively.
COVID-19 information searching negatively.

2. Method

2.1. Measures

For Questionare, variable recieve information overload question was using the seven item instruments adapted version that developed by Chen et al. Question of negative affest was measured with instruments from thatcher and prewee with some adaptation. Question of depressive symptoms was using hospital anxiety and depressive scale item. Trait anxiety question was measured items specified in inventory anxiety in spielberger state-trait. trait anger question was measured from the State-Trait Anger Expression Inventory. The behavioral intention question adapting from spielberger state[12] which is measured using items developed in the TAM[9]. All measures are rate with four-point likret scales because of the addition of a neutral midpoint with strongly agreed (4) to very disagree (1) value [13].Google form used for created the questionnaires and spread out via whatsapp online platform to reached proposed respondent’s.

2.2. Data Collection

Survey was conducted on Indonesian citizens who can access COVID-19 pandemic information in internet. Sample of respondent was taken by a purpouse sampling method based on the researcher’s assumption that inclusion respondents needed[14]. 218 respondents were filled google form questionare. Table below show respondents demographic:

| Category      | Variabel | %   |
|---------------|----------|-----|
| Gender        | Male     | 51,8%|
|               | Female   | 48,2%|
| Age           | < 18     | 0,9% |
|               | 19 - 4   | 41,7%|
|               | 25 - 34  | 35,3%|
|               | 35 - 44  | 8,7% |
|               | > 44     | 13,9%|
| Nationality   | WNI      | 100% |
| Education     | SMA      | 11,9%|
|               | S1       | 75,7%|
|               | Magister | 11,9%|
|               | Doktor   | 0,5% |

3. Results & Discussion

3.1. Measurement Model

The models and hypotheses proposed in this study was supported by SEM and PLS method. PLS is very suitable for modeling variabels with small to medium samples[15].
Table 2. Measurement Model

| Composite Reliability | AVE   |
|-----------------------|-------|
| Depressive symptoms   | 0.864 | 0.68  |
| Trait anxiety         | 0.904 | 0.759 |
| Perceived information overload | 1     | 1     |
| Behavioral Intention  | 1     | 1     |
| Negative Affect       | 0.857 | 0.667 |
| Trait Anger           | 0.926 | 0.676 |

Table above shows the assessment of the measurement model. Composite reliability because of limitation Cronbach’s alpha used for Internal consistency reliability investigation [16]. Constructs table 2 are above the 0.7. That show each construct had enough item reliability. Next, for average variance extracted (AVE) for convergent validity. AVE value need more than equal 0.5 value to meet the criteria [17]. Table below shown that AVE for every construct had enough correlation value. All item fit properly and greater than itself nor all other construct. This shows discriminant validity proper.

Table 3. Validity Discriminant

| (1) | (2) | (3) | (4) | (5) | (6) |
|-----|-----|-----|-----|-----|-----|
| (1) Depressive symptoms | 0.825 |     |     |     |     |
| (2) Trait anxiety | 0.521 | 0.871 |     |     |     |
| (3) Perceived information overload | -0.16 | 0.125 | 1   |     |     |
| (4) Behavioral Intention | 0.089 | 0.075 | -0.046 | 1 |     |
| (5) Negative Affect | 0.045 | 0.059 | 0.297 | 0.16 | 0.817 |
| (6) Trait Anger | 0.071 | -0.036 | 0.22 | 0.139 | 0.581 | 0.822 |

3.2. Testing Model

Table 4. Hypothesis Testing Result

| Original Sample (O) | Mean Sample (M) | STDEV | Statistics | P Values |
|---------------------|-----------------|-------|------------|----------|
| H1                  | 0.297           | 0.302 | 0.067      | 4.405    | 0        |
| H2                  | -0.16           | -0.169| 0.082      | 1.958    | 0.051    |
| H3                  | 0.135           | 0.125 | 0.084      | 1.496    | 0.134    |
| H4                  | 0.22            | 0.221 | 0.09       | 1.784    | 0        |
| H5                  | 0.07            | 0.07  | 0.092      | 0.64     | 0.443    |
| H6                  | 0.114           | 0.114 | 0.094      | 1.218    | 0.224    |
| H7                  | 0.057           | 0.069 | 0.096      | 0.593    | 0.553    |
| H8                  | 0.041           | 0.039 | 0.111      | 0.375    | 0.708    |
Figure above presents PLS analysis result. The result of hypothesis can be saw on table 4. That shown that Perceived online pandemic COVID-19 information overload related with negative affect and trait anger positively. However, COVID-19 information overload is negatively related with depressive symptoms and trait anxiety. For behavioral intention, trait anger, depressive symptoms, and trait anexiety are related with behavioral intention to searching about information online about pandemic COVID-19 again negatively.

The hypothesis was accepted if the P-Values have value more than 0.05 (< 0.05)[18]. H1 and H2 have P-values < 0.05 which is 0. So, H1 and H2 can be stated to have a positive effect. H2, H3, H4, H6, H7 and H8 have P-values > 0.05. it states that hypothesis negatively related.

![Figure 2. Result of structural model](image)

### Table 5. Result Summary

| Hypotheses | Conclusion |
|------------|------------|
| H1         | Supported  |
| H2         | Not Supported |
| H3         | Not Supported |
| H4         | Supported  |
| H5         | Supported  |
| H6         | Supported  |
| H7         | Supported  |
| H8         | Supported  |

This paper research the effects associated with excessive information about COVID-19 on the internet on psychological illnesses of person that searching information and their behavioral
motive to continue using the information search. This research verify models and hypotheses using information collection and survey data theory that collected from Indonesia.

Accordance summary result, receive online pandemic COVID-19 information too much in Indonesia is related to trait anxety and depressive symptoms negatively. It contrast to previous studies that provide a positive relationship with the two items. This shows that COVID-19 information on the internet in Indonesia has information with reasonable limits to make a bad impact on the psychological symptoms of trait anxiety and depressive symptoms. This research also proves that information overload on the internet keeps information seekers continuing to research for information in order to get the truth of the information. Negative influence and trait anger are only felt temporary and search information about COVID-19 in internet still continues despite experiencing it.

From an Information System Perspective, it takes more than necessary to create rules that can be information filters on internet about COVID-19 to help information seekers about COVID-19 online research that require relevance. For future research can be conducted with a larger scale of respondents and spread throughout Indonesia. This research was carried out at the beginning of the COVID-19 pandemic, for the next research can researching with the COVID-19 pandemic condition that has been going for a certain period of time for research the difference in the influence of the amount of information on the internet about COVID-19 over that period.

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