

## SOCIAL MEDIA USAGE BEHAVIOR AND ITS EFFECT ON MUSLIM COMMUNITY ANXIETY IN FACING THE COVID-19 PANDEMIC IN MEDAN CITY

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**Abstract:** The problems identified in this study are: (1) the Corona Virus or Covid-19 has become symptomatic in the world, including in Indonesia; (2) The public knows that information on Covid-19 comes from the mass media; (3) Scientific studies show that mass media is able to create a positive impact, but it can also have a negative impact on society, namely anxiety, depression and other mental health disorders, especially during the Covid-19 period. For these problems, this study aims to analyze the effect of social media use behavior in influencing the creation of public anxiety in the face of the Covid-19 pandemic. This research method uses a survey design to 666 Muslim respondents in Medan. Collecting research data is a questionnaire about the behavior of using social media and public anxiety. Analysis of research data using inferential statistical analysis with Structural Equation Model-Partial Least Square (SMART-PLS). This study produced several findings, including: First, the behavior of people in using social media during the Covid-19 pandemic was generally quite high; Second, the level of public anxiety facing the Covid-19 pandemic generally also shows a fairly high level; and Third, the behavioral effect of using social media in influencing the creation of public anxiety in the face of the Covid-19 pandemic appears to have a significant effect.

**Keywords:** Social Media; Anxiety; Covid 19

### Introduction

Corona virus is a type of virus that causes disease that targets humans or animals. In humans, several types of corona virus can interfere with the respiratory tract causing infection with symptoms such as coughing, runny nose and even more serious symptoms such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). The latest type of corona virus which was recently discovered to be the cause of the Covid-19 disease which has become a pandemic in the world (World Health Organization, 2020a).

The Covid-19 pandemic is a pandemic that has been symptomatic in the world since the end of 2019. The beginning of this virus came from China, precisely in Wuhan Province (Roy, et al., 2020; Zhou, et al., 2020). As of June 30, 2020, the number of Covid-19 cases globally was 10,020,660 cases and the number of deaths was 499,913 people. Of these cases, the United States ranks first (50.32%) and the smallest is the Western Pacific (2.14%) (World Health Organization,

2020b).

**Table 1. Global Covid-19 Cases**

| Regional              | Case       | Percent |
|-----------------------|------------|---------|
| America               | 5.042.486  | 50,32   |
| Europe                | 2.673.131  | 26,68   |
| Eastern Mediterranean | 1.041.774  | 10,40   |
| Southeast Asia        | 760.816    | 7,59    |
| Africa                | 288.347    | 2,88    |
| Western Pacific       | 214.106    | 2,14    |
| Total                 | 10.020.660 | 100,00  |

Source: Word Health Organization (2020b)  
Data until June 30, 2020 at 14.30 WIB

Indonesia is also one of the countries affected by Covid-19. One of the areas that felt the impact was Medan. Based on the latest data (29 June 2020), there were 965 people who were positively affected by Covid-19 in Medan, 251 people recovered and 58 people died (Pemko Medan, 2020). The data above can be obtained from the Medan City Government website which can be accessed by the public openly either via the internet via notebooks or smartphones. People can spread it widely from person to person through Facebook, Whatsapp, Instagram and other similar forms of social media.

In Indonesia, in January 2020 internet users were 175.4 million users, while social media users were 160 million users (Data Rate Portal, 2020). Table 2 shows the use of social media from January to June 2020. Social media users appear to have increased. The largest average media usage over the last 6 months was Facebook (40.56%) with the highest usage rate in May 2020 (50.87%), followed by Youtube (33.23%) with the highest peak in June 2020 (44.82%) (Stat Counter Global Stats, 2020).

**Tabel 2 Statistics of Social Media Use in Indonesia January-June 2020 (in Percentage)**

|           | Jan   | Feb   | Mar   | Apr   | May   | Jun   | Average |
|-----------|-------|-------|-------|-------|-------|-------|---------|
| Facebook  | 35,75 | 34,77 | 38,89 | 49,73 | 50,87 | 33,35 | 40,56   |
| YouTube   | 31,76 | 30,06 | 36,39 | 29,29 | 27,03 | 44,82 | 33,23   |
| Twitter   | 11,67 | 12,74 | 10,95 | 7,84  | 8,06  | 6,06  | 9,55    |
| Pinterest | 11,09 | 11,44 | 8,25  | 7,29  | 8,39  | 10,03 | 9,42    |
| Instagram | 9,2   | 10,41 | 5,17  | 5,48  | 5,26  | 5,27  | 6,80    |
| Tumblr    | 0,25  | 0,26  | 0,16  | 0,2   | 0,2   | 0,27  | 0,22    |
| VKontakte | 0,11  | 0,11  | 0,09  | 0,07  | 0,06  | 0,05  | 0,08    |
| Reddit    | 0,12  | 0,14  | 0,06  | 0,07  | 0,07  | 0,08  | 0,09    |
| LinkedIn  | 0,04  | 0,04  | 0,03  | 0,03  | 0,05  | 0,06  | 0,04    |
| Others    | 0,01  | 0,03  | 0     | 0,01  | 0     | 0,01  | 0,01    |
| Total     |       |       |       |       |       |       | 100,00  |

Source: Stat Counter Global Stats (2020).

The use of social media in Indonesia, which is quite large as above, can have an impact on users (Jailani et al., 2020), especially during the spread of Covid-19. A study in Indonesia concluded that

social media culture in Indonesia acts as a "positive" educational medium for the community regarding Covid-19 (Sampurno, Kusumandyoko, & Islam, 2020). However, other studies indicate that social media can have a "negative" effect on society because of hoax news (Mujahidin & Harahap, 2017) such as anxiety (Joiner, et al., 2005; Joiner, Brosnan, Duffield, Gavin, & Maras, 2007; Vannucci, Flannery, & Ohannessian, 2017); depression (Caplan, 2003; Primack, et al., 2017); and reduced mental health (Hunsaker, Hargittai, & Piper, 2020).

The studies above show conflicting effects of using social media, one side having a positive impact, but the other side having a negative impact. Of these studies, only one study was conducted in Indonesia, specifically related to Covid-19, and its relevance to the use of social media and its impact on anxiety. If we look further, although studies have been carried out in Indonesia, specifically in the city of Medan there has not been a single study that examines this problem.

Based on the problems and limitations that have been stated above, the authors need to find answers through this research: How does the behavioral effect of using social media affect the creation of public anxiety in the face of the Covid-19 pandemic.

## **Literature Review**

### **Media Social Use**

Social media is media that involves online social channels, develops and changes over time and involves the participation of the creative process of various people (Evans, 2010). Types of social media include collaborative projects, micro-blogs, blogs, content communities, social networking sites, virtual games, and virtual social worlds (Kaplan, 2012; Kietzmann, Hermkens, McCarthy, & Silvestre, 2011). Social media has influenced activities and reshaped the way people interact with each other in the online environment, both social, cultural and professional activities and human interactions (Tang & Liu, 2011; Van Dijck, 2013). Social media is also able to provide various ways for individuals to achieve a sense of social competence and competence in relating to others (Brinkman, Gabriel, & Paravati, 2020). Some tangible manifestations of the role of social media are: as public health service education; direct the public to their websites and landing pages for the latest and most trusted information regarding Covid-19; market innovative services such as health care social fund services; posts related to case information, photos, and results related to Covid-19; share reviews and testimonials of recovered patients; and provide support among Indonesian citizens in the face of the Covid-19 pandemic (Sampurno, Kusumandyoko, & Islam, 2020).

The concept of social media use behavior can be measured from various things, including: Social achievement goals, use of social media, active posting on social media, social media to establish relationships, posting popular things, feeling close to others, direct social contact, motivational barriers, and self-esteem (Brinkman, Gabriel, & Paravati, 2020). Other parameters to assess the use of social media, can be seen from: frequency of use, exchange of information, information trust, knowledge (Kilgour, Sasser, & Larke, 2015; Cao, Guo, Vogel, & Zhang, 2016).

### **Public Anxiety**

Empirical research on anxiety has increased dramatically in the last 2 decades. Anxiety is a concept from contemporary personality theory. Studies assume that anxiety is the main cause for various behavioral consequences, such as insomnia, immoral and sinful acts, examples of creative self-expression, debilitating psychological and psychosomatic symptoms, and other prolonged behavior (Spielberger, 2013). Anxiety is a distressing emotion that is usually associated with bodily discomfort (Noyes, Noyes, & Hoehn-Saric, 2006). People can become anxious because of what

they believe about certain situations, other people, or themselves (Hope, Heimberg, & Turk, 2010). Anxiety disorders are also characterized by constant worry, tension (Wittchen, 2002), inappropriate and excessive stress (Rachman, 2013).

One of the studies on anxiety during Covid-19 was conducted in India. The study investigated the perceived awareness, attitudes, anxiety and mental health maintenance needs during the coronavirus pandemic (Roy, et al., 2020). Another study in China, conducted by investigating health workers during the Covid-19 season. This study shows that workers seem to experience quite high psychological stress, especially in problems of anxiety and depression (Xiaoa, et al., 2020). In the economic sector, studies in the United States show that anxiety also experienced a large increase during and after the emergence of the Corona virus (Fetzer, Hensel, Hermle, & Roth, 2020). Studies in America on the economy also show that most respondents are concerned about the effects of Covid-19 on the economy, their health, and their personal finances (Binder, 2020).

To measure the concept of anxiety about the Corona virus, it can be measured from the Corona virus anxiety scale (Coronavirus Anxiety Scale), including: dizziness, falling, falling asleep, stiffness, loss of interest in eating and nausea (Lee, 2020). Another measure can also be seen from a study in China, that anxiety disorders against the Corona virus are measured by: symptoms of depression, and lack of sleep (Huang & Zhao, 2020). Other assessments to assess anxiety in the face of the Covid-19 pandemic are: People with high health anxiety in responding to viral outbreaks, tend to maladaptive safety behaviors such as excessive hand washing, social withdrawal, and panic buying (Asmundson & Taylor, 2020).

### **Behavioral Studies of Social Media Use and Its Relation to Public Anxiety**

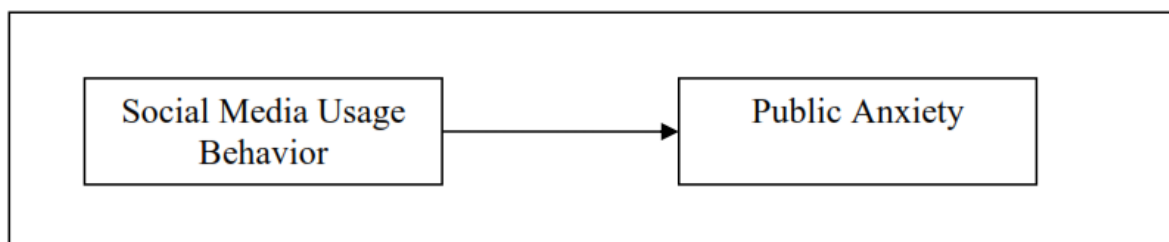
In general, studies investigating how social media use is related to anxiety can be seen from several studies, including: There is a negative relationship between internet use and anxiety (Joiner, et al., 2005; Joiner, Brosnan, Duffield, Gavin, & Maras, 2007). People who feel lonely and depressed, choose to interact with online social media or the internet. In turn, it will lead to negative results due to the use of the internet (Caplan, 2003). People who are members of online communities and participate in online discussions are associated with anxiety. This study concludes that there is an association between a greater amount of online social interaction and reduced mental health among older (Hunsaker, Hargittai, & Piper, 2020).

In particular, many studies have also examined the link between social media use and anxiety related to the pandemic, both the H1N1, MERS, and Covid-19 outbreaks, as explained below. *First*, the case of H1N1. Prior to the social media boom, a study in the United States indicated that traditional media were used more than social media in framing the H1N1 pandemic (Liu & Kim, 2011). One of the studies in the period of the swine flu virus (H1N1) which spread during the period of 2009, showed that social media Twitter was used by the public to spread information about the virus, both from credible sources, opinions and community experiences (Chew & Eysenbach, 2010). *Second*, the MERS case. Likewise, in the period of the spread of MERS, a study in South Korea has also been conducted which examines the impact of social media which is considered to be positively related to perceived risk during the outbreak of MERS (Choi, Yoo, Noh, & Park, 2017). *Third*, the Covid-19 case. The 2019 Corona Virus Disease (Covid-19) pandemic which was spread through social media gave rise to a lot of rumors, hoaxes, and misinformation. The error is in the form of misinformation about the etiology, outcome, prevention, and cure of disease. Dissemination of such inappropriate information masks healthy living behaviors and informs wrong practices that can result in poor physical and mental health outcomes (Tasnim, Hossain, & Mazumder, 2020).

Another study shows that people are affected by the number of media viewing that affects the perception of the risk of the Corona virus (Karasneh, et al., 2020). A different but still study on the behavior of using social media during the Covid-19 pandemic has been carried out in China, namely examining the relationship between social media exposure and mental health problems. The study's findings indicate that the odds of anxiety are indicated to be higher for those who use social media more often than those who use social media less (Gao, et al., 2020).

In Iran, studies during the Covid-19 outbreak concluded that anxiety levels were higher among women, and people who had at least one family member, relative, or friend who contracted the Covid-19 disease (Mansourieh, 2020). Another relevant study concluded that information from governments, national and international institutions that provide advice through print media, electronic media, and social media to contain the spread of the Corona virus disease, causes a significant negative impact on people's mental health, especially people with obsessive-compulsive disorder, fear of contamination and excessive hand washing (Kumar & Somani, 2020).

Based on the studies, it can be concluded that the use of social media has an influence in creating anxiety in the community. For this reason, the framework of thinking in this study can be seen as shown in Figure 1.



**Figure 1 Research Thinking Framework**

Thus, the hypothesis in this study is: The behavior of using social media has an effect on people's anxiety.

## Method

### Research Design

This study uses a quantitative approach, particularly survey design. Survey is a systematic collection of information about a topic by giving questions to individuals or respondents from a population to produce statistics (Aday & Cornelius, 2006; Czaja, Blair, & Blair, 2014). Individuals who are targeted in this study are Muslim communities who live in Medan, North Sumatra.

### Data Collection Technique

The research data collection used the technique of distributing questionnaires to the respondents, namely the Muslim community in Medan. Questionnaires were given to a minimum of 200 respondents in the form of a questionnaire. The number of respondents after the data was collected was 666 respondents. Questionnaires were used to measure the research variables, namely the behavioral variables of using social media and the variables of public anxiety. *First*, the measures of the variables of social media use are: frequency of use, information exchange, information trust, knowledge (Kilgour, Sasser, & Larke, 2015; Cao, Guo, Vogel, & Zhang, 2016). Based on the measurements above, questionnaire questions were developed to assess the use of social media, including: (1) you are using social media more often during the Covid-19 pandemic than before; (2)

You and your family spend more on the internet during the Covid-19 pandemic; (3) you always exchange information with your colleagues about Covid-19 through social media; (4) You easily trust the Covid-19 information you get from social media; and (5) you gain a fairly good knowledge of Covid-19 because of social media. *Second*, the variable measures of public anxiety include: fear of interacting, fear of infection, fear of dying, prohibiting family members from interacting, encouraging family members to protect themselves with health protective equipment (Adapted From Lee, 2020; Huang & Zhao, 2020; Asmundson & Taylor, 2020). The parameters mentioned were developed into questionnaire questions as follows: (1) you are afraid to socialize with the general public during the Covid-19 period; (2) you are afraid to interact at work during the Covid-19 period; (3) you are afraid to worship in public places of worship during the Covid-19 period; (4) you reduce your shopping activities during the Covid-19 period; (5) you are very worried that you will die from contracting the Covid-19 virus; (6) You encourage family members to reduce activities outside the home during the Covid-19 period; (7) You always encourage family members to protect themselves with masks and wash their hands during the Covid-19 period.

### Data Analysis Techniques

To analyze the data, this study uses inferential statistical analysis which is used to answer the problem of the behavioral effect of using social media in influencing the creation of anxiety among Muslim communities facing the Covid-19 pandemic. The inferential statistic used is the Structural Equational Model-Partial Least Square (SEM-PLS). The SEM-PLS model can be seen in Figure 2.

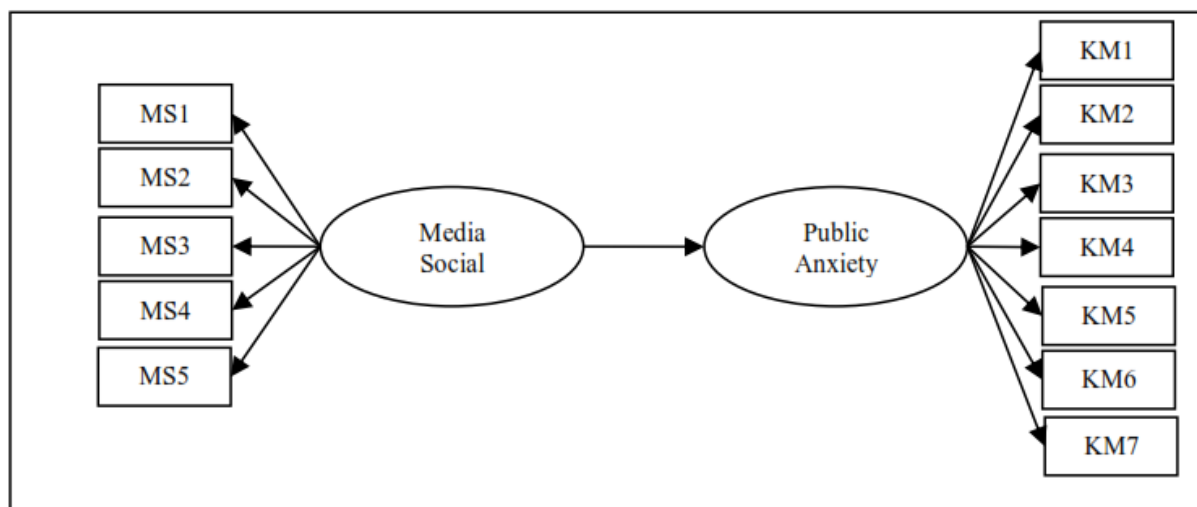


Figure 2 SEM-PLS Model

The steps for analyzing the Structural Equational Model-Partial Least Square (SEM-PLS) are as follows: (1) Analysis of the outer model (measurement model), including: Indicator loadings; Internal consistency reliability; Convergent validity; and Discriminant validity; (2) Analysis of the inner model (structural model), namely: Coefficient of determination: R-Square; f-Square Effect Size; Predictive Relevance Q-Square; and Significance Test (hypothesis testing). The hypotheses to be tested are as follows: (1)  $H_0$ : The behavior of using social media has no significant effect on people's anxiety; (2)  $H_1$ : The behavior of using social media has a significant effect on public anxiety.

## Result and Discussion

### Respondent Demographics

The number of questionnaires planned to be distributed to respondents is 200 questionnaires. However, the number of questionnaires that were successfully distributed to respondents was 695 questionnaires. Of these, only 666 questionnaires (95.83%) were suitable for data analysis. If you look at the percentage of questionnaires that are eligible to be analyzed, the number is quite large. The demographics of the respondents that are part of the questions in the questionnaire are about: (1) gender, (2) age, (3) education level, and (4) occupation. Table 3 shows the demographic data of the respondents.

**Table 3. Respondent Demographics**

| Demographics |     | F     | % |                    |     |       |  |  |
|--------------|-----|-------|---|--------------------|-----|-------|--|--|
| Gender:      |     |       |   |                    |     |       |  |  |
| Male         | 238 | 35.74 |   |                    |     |       |  |  |
| Female       | 428 | 64.26 |   |                    |     |       |  |  |
| Age:         |     |       |   |                    |     |       |  |  |
| 15-20 years  | 322 | 48.35 |   |                    |     |       |  |  |
| 21-30 years  | 149 | 22.37 |   |                    |     |       |  |  |
| 31-40 years  | 45  | 6.76  |   |                    |     |       |  |  |
| 41-50 years  | 120 | 18.02 |   |                    |     |       |  |  |
| >50 years    | 30  | 4.50  |   |                    |     |       |  |  |
|              |     |       |   | Education Level:   |     |       |  |  |
|              |     |       |   | Primary School     | 5   | 0.75  |  |  |
|              |     |       |   | High School        | 22  | 3.30  |  |  |
|              |     |       |   | Senior High School | 294 | 44.14 |  |  |
|              |     |       |   | Bachelor (S1)      | 268 | 40.24 |  |  |
|              |     |       |   | Master (S2)        | 67  | 10.06 |  |  |
|              |     |       |   | Doctor (S3)        | 10  | 1.50  |  |  |
|              |     |       |   | Occupation:        |     |       |  |  |
|              |     |       |   | Student            | 115 | 17.27 |  |  |
|              |     |       |   | College Student    | 175 | 26.28 |  |  |
|              |     |       |   | Housewife          | 65  | 9.76  |  |  |
|              |     |       |   | Entrepreneur       | 34  | 5.11  |  |  |
|              |     |       |   | Civil Servant      | 22  | 3.30  |  |  |
|              |     |       |   | Private Employee   | 85  | 12.76 |  |  |
|              |     |       |   | Others             | 170 | 25.53 |  |  |

## Data Analysis

### Measurement Model Analysis (Outer Model)

The analysis of the measurement model or the outer model in this study basically aims to analyze the reliability and validity of the research construct, namely the behavioral construct of social media use and the level of public anxiety during the Covid-19 period. The measurement models to be analyzed are as follows: (1) Indicator loading/ indicator reliability; (2) Internal consistency reliability; (3) Convergent validity; and (4) Discriminant validity model (Hair, Hult, Ringle, & Sarstedt, 2011; Hair, Hult, Ringle, & Sarstedt, 2016).

**Table 4. Loading Indicator Value (Before)**

| Main Construct              | Items | Indicator Loading (Outer Loading) |
|-----------------------------|-------|-----------------------------------|
| Social Media Usage Behavior | MS1   | 0.527                             |
|                             | MS2   | 0.383                             |
|                             | MS3   | 0.689                             |
|                             | MS4   | 0.727                             |
|                             | MS5   | 0.662                             |
| Public Anxiety              | KM1   | 0.794                             |
|                             | KM2   | 0.818                             |
|                             | KM3   | 0.693                             |
|                             | KM4   | 0.689                             |
|                             | KM5   | 0.709                             |
|                             | KM6   | 0.692                             |
|                             | KM7   | 0.507                             |

First, the Loading Indicator/ Reliability Indicator. The value of the loading indicator is seen from the value of the outer loading (outer loading is used because the model in this study is a reflective model, not a formative model). The provisions for interpreting the value of outer loading are: (1) The value of outer loading > 0.7, if the research is classified as an established research

(confirmatory research); (2) Outer loading value  $> 0.4$  to  $0.7$  can be considered, if the research is classified as new research (exploratory research); and (3) Outer loading value  $< 0.4$  then the indicator must be removed from the model (Hair, Hult, Ringle, & Sarstedt, 2016).

Table 4 shows the outer loading value below  $0.4$ , which is for items MS2 ( $0.383$ ). In order to make the model better, the MS2 item was excluded from the behavioral construct of social media use. Meanwhile, the other items from the two constructs (both constructs of social media usage behavior and public anxiety) have outer loading values which are still within tolerable limits. After the MS2 item is removed from the construct, the new loading indicator values are as follows.

**Table 5. Value of Loading Indicator (After)**

| Main Construct              | Items | Indicator Loading (Outer Loading) |
|-----------------------------|-------|-----------------------------------|
| Social Media Usage Behavior | MS1   | 0.494                             |
|                             | MS3   | 0.686                             |
|                             | MS4   | 0.748                             |
|                             | MS5   | 0.687                             |
| Kecemasan Masyarakat        | KM1   | 0.794                             |
|                             | KM2   | 0.817                             |
|                             | KM3   | 0.695                             |
|                             | KM4   | 0.685                             |
|                             | KM5   | 0.709                             |
|                             | KM6   | 0.695                             |
|                             | KM7   | 0.508                             |

Table 5 shows the most recent values for outer loading. All items have a value greater than  $0.4$ . Thus, because this research is a relatively new research (exploratory), then the value of  $0.4$  is the value of outer loading that can be tolerated.

Second, Internal Consistency Reliability/ Construct Reliability and Validity. Internal consistency reliability is a form of reliability testing used to assess the consistency of results across items on the same test. To analyze Internal Consistency Reliability/ Construct Reliability and Validity, Cronbach Alpha, Rho A, and Composite Reliability values can be used. However, the recommended value is to use Composite Reliability (Hair, Hult, Ringle, & Sarstedt, 2016).

The criteria for drawing conclusions to analyze Internal Consistency Reliability/Construct Reliability and Validity are as follows:

- (1) Cronbach's Alpha: Cronbach's Alpha value must be  $> 0.7$ , but if Cronbach's Alpha value is  $> 0.6$ , it can also be considered if the research is exploratory research);
- (2) Rho-A: If the value of Rho-A  $> 0.7$ ;
- (3) Composite reliability: If the composite reliability value is  $> 0.7$  (Hair, Hult, Ringle, & Sarstedt, 2016).

**Table 6. Value of Internal Consistency Reliability/ Construct Reliability and Validity**

| <i>Main Construct</i>       | <i>Cronbach Alpha</i> | <i>Rho_A</i> | <i>Composite Reliability</i> |
|-----------------------------|-----------------------|--------------|------------------------------|
| Social Media Usage Behavior | 0.572                 | 0.597        | 0.752                        |
| Kecemasan Masyarakat        | 0.828                 | 0.834        | 0.873                        |
| Social Media Usage Behavior | 0.572                 | 0.597        | 0.752                        |

In this study, the value used to analyze Internal Consistency Reliability/ Construct Reliability and Validity is the Composite Reliability value according to the recommendations of the experts (Hair, Hult, Ringle, & Sarstedt, 2016). Composite Reliability values (Table 6) for both constructs are greater than 0.7. Thus, this value meets the criteria for the analysis of Internal Consistency Reliability/ Construct Reliability and Validity.

*Third*, Convergent Validity. Convergent Validity aims to determine the extent to which a measurement is positively correlated with other measurements on the same construct. The way to assess convergent validity is to look at the Average Variance Extracted (AVE) value. The expected AVE value is > 0.5 (Hair, Hult, Ringle, & Sarstedt, 2016).

**Table 7. Convergent Validity Value**

| <i>Average Variance Extracted (AVE)</i> |       |
|-----------------------------------------|-------|
| Public Anxiety                          | 0.499 |
| Media Social                            | 0.437 |

Table 7 shows that the Average Variance Extracted (AVE) value is less than 0.5 for both constructs. Thus, convergent validity in this study is not in accordance with the expected criteria.

*Fourth*, Discriminate Validity. Discriminant validity aims to analyze the extent to which a construct is truly different (unique) compared to other constructs. Discriminant validity can be assessed from: Fornell-Larcker Criterion; Cross loading; or Heterotrait-Monotrait Ratio (HTMT). However, the recommended measure to use is the Heterotrait-Monotrait Ratio (HTMT). The conclusion criteria for the three measures above are as follows: (1) Fornell-Larcker Criterion: The square root value of the AVE must be greater than the highest correlation of the other constructs; (2) Cross Loadings: each loading indicator must be greater than all its cross-loadings; or (3) Heretroit-Monotrait Ratio (HTMT):  $HTMT < 0.90$  (Hair, Hult, Ringle, & Sarstedt, 2016).

In accordance with what is recommended for use, in this study the measure of Discriminator validity used is the Heterotrait-Monotrait Ratio (HTMT).

**Table 8. Value of Heterotrait-Monotrait Ratio (HTMT)**

|                | Public Anxiety | Media Social |
|----------------|----------------|--------------|
| Public Anxiety |                |              |
| Media Social   | 0.604          |              |

Table 8 shows the value of HTMT less than 0.9. Thus the discriminant validity value is still within the tolerance value limit, so it can be concluded that the constructs in this study have the expected discriminant validity, in other words, each construct in this study is a unique construct.

#### 4.2.2. Structural Model Analysis (Inner Model)

This section will analyze the structural model (inner model). The purpose of this analysis is to prove the hypothesis that has been put forward since the beginning, namely: The behavior of using social media affects people's anxiety. However, before testing the hypothesis, several analyzes were carried out with the following stages: (1) Analysis of the coefficient of determination/ R-Square; (2) f-Square Effect Size analysis; (3) Predictive Relevance Q-Square Analysis; and (4) Hypothesis testing/significance testing (Hair, Hult, Ringle, & Sarstedt, 2016).

*First*, the analysis of the coefficient of determination (R-Square). The R-Square values obtained in this study are as listed in Table 9. The R-Square value is 0.185 and the R-Square is 0.184, with a P-Values of 0.000 (significant) for both. Thus, public anxiety can be explained well by the behavior of using social media. *Second*, Analysis of Effect Size (f-Square/f<sup>2</sup>). In addition to evaluating the R<sup>2</sup> value of all endogenous constructs, the change in the R<sup>2</sup> value when certain exogenous constructs (affecting variables) are removed from the model, can be used to evaluate whether the omitted constructs have a substantive impact on the endogenous constructs. This size is referred to as the effect size f<sup>2</sup>. Guidelines for assessing f<sup>2</sup> are: (1) f<sup>2</sup> = 0.02 (small effect); (2) f<sup>2</sup> = 0.15 (medium effect); (3) f<sup>2</sup> = 0.35 (large effect) (Hair, Hult, Ringle, & Sarstedt, 2016)

**Table 9. Coefficient of Determination Value (R-Square and R-Square Adjusted)**

| <i>R-Square</i>          |                            |                        |                                   |                                 |                 |
|--------------------------|----------------------------|------------------------|-----------------------------------|---------------------------------|-----------------|
|                          | <i>Original Sample (O)</i> | <i>Sample Mean (M)</i> | <i>Standard Deviation (STDEV)</i> | <i>T Statistics ( O/STDEV )</i> | <i>P Values</i> |
| Public Anxiety           | 0.185                      | 0.190                  | 0.031                             | 5.934                           | 0.000           |
| <i>R-Square Adjusted</i> |                            |                        |                                   |                                 |                 |
|                          | <i>Original Sample (O)</i> | <i>Sample Mean (M)</i> | <i>Standard Deviation (STDEV)</i> | <i>T Statistics ( O/STDEV )</i> | <i>P Values</i> |
| Public Anxiety           | 0.184                      | 0.189                  | 0.031                             | 5.886                           | 0.000           |

**Table 10. f<sup>2</sup>Value**

|                                | <i>Original Sample (O)</i> | <i>Sample Mean (M)</i> | <i>Standard Deviation (STDEV)</i> | <i>T Statistics ( O/STDEV )</i> | <i>P Values</i> |
|--------------------------------|----------------------------|------------------------|-----------------------------------|---------------------------------|-----------------|
| Media Social -> Public Anxiety | 0.227                      | 0.237                  | 0.048                             | 4.737                           | 0.000           |

Table 10 shows the f<sup>2</sup> value of 0.227 and the P-Values of 0.000 (significant). Thus, there is a relatively large effect in this study. *Third*, Analysis of Predictive Relevance of Model (Q-Square/Q<sup>2</sup>). In addition to evaluating the magnitude of the R<sup>2</sup> value as a predictive accuracy criterion, researchers must also examine the Stone-Geisser Q<sup>2</sup> value. This measure is an indicator of the predictive relevance of the model. While PLS-SEM shows predictive relevance, PLS-SEM accurately predicts indicator data points in the reflective measurement model of endogenous constructs and endogenous single-item constructs. This procedure does not apply to formative endogenous constructs. The value of Q<sup>2</sup> > 0 indicates that the model has predictive relevance for certain endogenous constructs. On the other hand, the value of Q<sup>2</sup> < 0 indicates a lack of predictive relevance (Hair, Hult, Ringle, & Sarstedt, 2016).

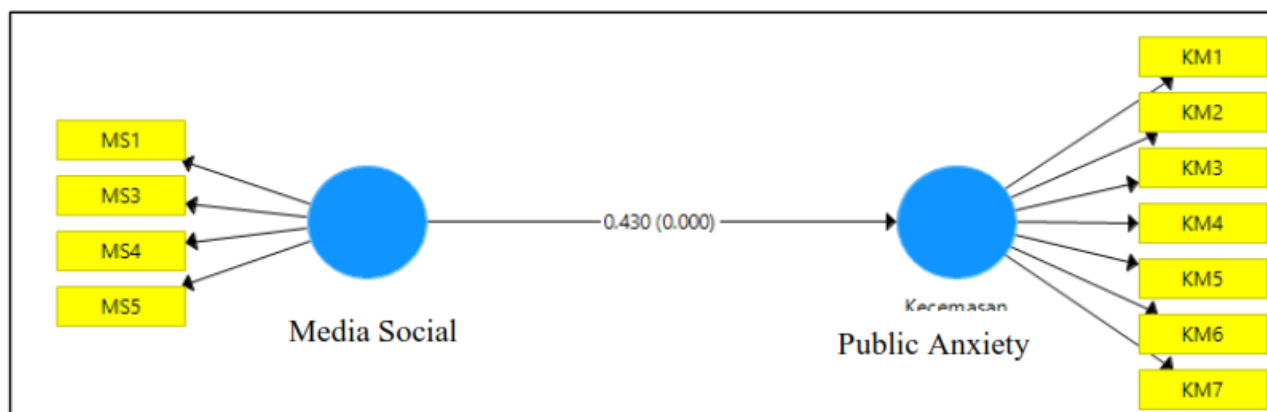
**Table 11. Value  $Q^2$  Value**

|                | SSO       | SSE       | $Q^2 (=1-SSE/SSO)$ |
|----------------|-----------|-----------|--------------------|
| Public Anxiety | 4,662.000 | 4,271.035 | 0.084              |
| Media Social   | 2,664.000 | 2,664.000 |                    |

The value of  $Q^2$  is 0.084 (Table 11), so  $Q^2 > 0$ , this means that the model has predictive relevance for endogenous constructs. *Fourth*, hypothesis testing/significance test. Hypothesis testing aims to test whether between constructs/variables have a significant effect or not. The criteria are seen from the P-Values  $< \alpha 0.05$  to be said to be significant.

**Table 12. Path Coefficients Value**

|                                   | Original<br>Sample (O) | Sample<br>Mean (M) | Standard<br>Deviation<br>(STDEV) | T Statistics<br>( O/STDEV ) | P Values |
|-----------------------------------|------------------------|--------------------|----------------------------------|-----------------------------|----------|
| Media Social -><br>Public Anxiety | 0.430                  | 0.435              | 0.036                            | 11.920                      | 0.000    |



**Figure 3. Path Coefficient and P-Values**

Table 12 and Figure 3 show the path coefficient value of 0.430 (positive) with a P-Value of 0.000  $< \alpha$  (0.05) (significant). This positive value indicates that if the value of using social media increases, then the value of public anxiety in facing Covid-19 is also increasing.

### Discussion

This research basically has three main objectives, namely: (1) Analyzing people's behavior in using social media during the Covid-19 pandemic; (2) Analyzing the level of public anxiety facing the Covid-19 pandemic; and (3) analyzing the behavioral effects of using social media in influencing the creation of public anxiety in the Covid-19 pandemic. *First*, people's behavior in using social media during the Covid-19 pandemic. There are 5 indicators that are measured to assess the construct of social media use. As a result, respondents in this study seemed to interact more often with social media than before the Covid-19 pandemic. Likewise, spending on social media is greater than before the Covid-19 pandemic. In terms of the activity of exchanging information about Covid-19 with colleagues using social media, it is also quite high. However, a unique finding is that respondents do not easily believe Covid-19 information obtained from social media. From these findings, it is indicated that in general, people's behavior to use social media is quite high.

*Second*, the level of public anxiety facing the Covid-19 pandemic. By the seven indicator items for the construct of the level of anxiety of the Muslim community in Medan, it indicates several things that illustrate how the real level of public anxiety is during the spread of Covid-19. From the indicators of public fear, it looks quite large. Likewise, the fear of interacting at work or places of routine activity during the spread of Covid-19 is also great. However, the level of public fear of worshipping in public places of worship, such as mosques and prayer rooms is relatively low. On the other hand, people's shopping activities have also decreased during the Covid-19 outbreak. The public's fear of dying from contracting the Covid-19 virus is also quite high. Another finding, it is also seen that the community is quite high in encouraging family members to reduce activities outside the home during the time of the spread of Covid-19. This includes encouraging family members to protect themselves with masks and wash their hands during the time of the spread of Covid-19. Thus, from all indicators of the construct of the level of anxiety of the Muslim community in Medan, the level of public anxiety is generally quite high in dealing with the Covid-19 issue.

*Third*, the behavioral effect of using social media in influencing the creation of public anxiety in the face of the Covid-19 pandemic. The study that the author has done shows the findings that the behavior of using social media has a significant effect on the anxiety level of the Muslim community in Medan. The results of this study are in line with the study of (Karasneh, et al., 2020), (Gao, et al., 2020), (Mansourieh, 2020), and (Kumar & Somani, 2020). The findings of both the study that the author did and the previous studies are a marker that social media can really affect people's anxiety levels.

## Conclusion

This research has answered the research problem. Some of the conclusions obtained are as follows: First, people's behavior in using social media during the Covid-19 pandemic is generally quite high; Second, the level of public anxiety facing the Covid-19 pandemic generally also shows a fairly high level; Third, the behavioral effect of using social media in influencing the creation of public anxiety in the face of the Covid-19 pandemic appears to have a significant effect. With this study, the authors recommend to the public to be wiser in using social media. The hope is that the wiser and more appropriate use of social media will reduce the level of public anxiety, especially the anxiety of facing the Covid-19 issue. Although this study targets the Muslim community, the findings of this study apply generally to other community groups.

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