# LONELINESS TOWARDS SMARTPHONE ADDICTIONS WITH SOCIAL ANXIETY AS MEDIATOR VARIABLE FOR INDONESIAN STUDENTS

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### Abstract

Study aimed at determining the quality of the smartphone addiction with social anxiety as a mediator variable. This research was conducted on Indonesian Students. There were 135 students as the respondents. The data were collected by using smartphone addiction scale, loneliness scale and social anxiety scale. Cronbach Alpha was used to test the reliability. The product moment was used to test the validity. The data were analyzed using multiple linear regression analysis of path analysis. The results of data analysis obtained F count (13,285) with p value of (0,000) < $\alpha$  (0.05) and t count 0.417 with p value = 0.677> 0.05, so the proposed hypothesis is accepted. There is the effect of loneliness towards smartphone addiction with social anxiety as a variable mediator for Indonesian Students. The determinant coefficient showed that social anxiety effectively contributed as the mediator variable to the effect of loneliness on smartphone addiction of 16.8%, while the remaining of 83.2% was influenced by other variables that were not revealed in this study.

Keywords: social anxiety, loneliness, smartphone addiction, Indonesian students

# PRELIMINARY

The development of information technology continues to grow over time. The results of these developments have a positive impact on us, which is easy to obtain information wherever and whenever we need it. Smartphones are the result of the development of digital technology that is in great demand by many people. Gary, Thomas & Misty (2007) stated that smartphones (gadgets) are phones that can be used to access the internet and usually provide Personal Digital Assistant (PDA) functions, such as calendar, agenda book, address book, and calculator functions.

Data on the number of smartphone users worldwide from Statista 2018 is estimated that in 2019 the number of smartphone users worldwide will exceed the 5 billion mark, with the penetration rate of smartphones also continuing to increase. More than 36 percent of the world's population is projected to use smartphones in 2018. The number of internet users in Indonesia reaches more than half the population in Indonesia. Based on the results of a survey conducted by the Indonesian Internet Service Providers Association (APJII) penetration of internet users in Indonesia. in 2017 it reached 143, 26 million of the total population of Indonesia 262 million people, which means that around 54, 68 percent of the population of Indonesia are internet users, of which 44.16% of users access the internet via smartphone devices .

But not only in terms of access that is increasing, in terms of duration of use is increasing. In the 2018 global digital report released by Wearesocial on January 30, 2018, Wearesocial and Hootsuite conducted a survey, that the average person in the world uses the internet for 6 hours per day, to access the internet through various devices. Indonesia ranks fourth in the world in terms of internet usage time with a duration of 8 hours 51 minutes every day.

The higher duration of smartphone use to access the internet shows the higher attachment of someone to a smartphone (Gokçearslan, 2016). All the activities that they do with their smartphones cause a very high smartphone usage rate which results in smartphone addiction (Sri Mulyana, 2017). Smartphone addiction according to Kwon (2013) is the behavior of

attachment or addiction to a smartphone that allows social problems or as an impulse control impulse to someone as well as withdrawal and difficulties in the performance of daily activities.

Young (2017) states that one of the causes of addiction is social problems in the form of intrapersonal problems such as low self esteem, or low communication skills, and interpresonal problems such as loneliness. According to Taylor, Peplau, & Sears (2006) loneliness is a feeling of psychological anxiety in individuals when they experience deficiencies in important aspects of social relations. These deficiencies can be quantitative, namely the lack of a relationship or qualitatively such as an unpleasant relationship. Previous research conducted by Subagio and Hidayati (2017) shows that there is a positive and significant relationship between loneliness and smartphone addiction in class X students of SMA Negeri 2 Bekasi, the higher the loneliness, the higher the smartphone addiction experienced by SMA Negeri 2 Bekasi students.

Loneliness also has to do with social anxiety. Supported by research conducted by Vanhalst, Goosens, Luyckx, Scholte, & Engels (2012) found that late teens who experience loneliness tend to have low levels of agreeableness, unstable emotions, low self esteem, high levels of depression, and social phobia. Social phobia is commonly anxiety known as social anxiety. Additionally, Gossens & Marcoen (in Bonnetti, Gimoore, & Campbell, 2010) describes the period between adolescence and adulthood, loneliness becomes increasingly associated with social anxiety, depression, and other mental health problems, issues that can be internalized through behavioral problems such as her school, alcoholism, drug use, aggression, delinquency, obesity and sometimes even suicide cases .

According to Jatmiko (2016) social anxiety is a feeling of worry and discomfort when having to start a conversation or when interacting with others, and being in a situation where there is an element of judgment or evaluative. Someone with social anxiety will use the internet that functions as a way to overcome loneliness and as a substitute media for direct relationships with others that he does not get in daily life for fear of communicating directly with others and prefers only online communication (Soliha, 2015). In other words a smartphone has a meaningful function for individuals who experience social anxiety.

A person who experiences loneliness and social anxiety is very vulnerable to the risk of smartphone addiction. The research results of Darcin et al (2016) on 367 students at Istanbul's Uskudar University, Turkey showed that social phobia and loneliness are related to the risk of smartphone addiction in young people. They use smartphones to access social networking sites, and they have a pattern of excessive smartphone use. Darcin et al (2016) show that loneliness is correlated with a high risk of smartphone addiction in all of its study samples, and feelings anxiety are of social related to loneliness because consequence as а of using smartphones excessively rather than direct communication. In addition. using an excessive smartphone is interpreted as a form of overcoming the situation for people who experience loneliness because smartphones provide a different form of socialization. Based on this explanation, it means that the condition of loneliness and social anxiety in a person can be at risk of experiencing a smartphone addiction.

State of loneliness and social anxiety can be encountered on the Indonesian students, especially students who come from outside Java and educated in Java. This is because they are far from family and face a new environment that is very different from their original environment. commonly known as culture shock or culture shock which is a term commonly used to describe a person's circumstances and feelings in dealing with different socio-cultural environments (Devinta, Hidayah, & Hendrastomo, 2015). Based on the results of interviews conducted on overseas students outside Java they experienced a feeling of confusion, strange, anxious, alone, awkward, afraid of being wrong to act and wrong in talking to others, besides that they also said the situation and culture in Java and their hometown were very different so they feel shocked by the condition.

In social relationships with other people they still feel awkward feelings and are afraid of making mistakes. This is because the aspects of language are very different. In public places that involve many people they decide to play smartphones because there is no activity that can be

done. For those playing smartphones it is enough to get rid of awkward feelings, fear, confusion. When playing a smartphone they feel enough, even though basically if they are invited to talk to each other they are happy and don't mind. The average of them consider smartphones are very important, they will feel very confused, alone, and do not ta h u have to do when it does not carry a smartphone and are in public places.

These results indicate that the decision to play smartphones in is a form of attitude to avoid unpleasant feelings. This is supported by the statement of Chiu (2014) when a person experiences internal and external pressure, addiction functions as a coping mechanism for stress, the existence of smartphone addiction disorder is a transfer of stress to relieve negative emotions and experiences caused by pain and tension, and the absence Strong self control over smartphone usage is the beginning of the occurrence of dependence with these communication tools. Young (2011) that addiction occurs because there is a need to avoid unpleasant feelings.

Based on this phenomenon, this is a matter that is quite interesting for researchers to examine existing problems. Smartphone addiction is a phenomenon that we easily encounter in today's social environment. Student life cannot be separated from the media in the form of a smartphone. In addition to internal, situational, economic and social factors, which can cause a person to experience smartphone addiction, loneliness and social anxiety, it is also thought to have an influence on smartphone addiction, especially in college students outside Java where they experience a culture shock. This encourages researchers to examine more deeply the effect of loneliness on smartphone addiction with social anxiety as a mediator for Indonesian student.The hypothesis in this study is in the effect of loneliness on smartphone addiction with social anxiety as a mediator variable for Indoneisan students.

#### METHOD

#### Variable identification

uses This research quantitative methods. There are 1 independent variable (X), namely loneliness, mediator namely social anxiety and dependent 1 variable, 1 variable, smartphone addiction.

#### **Research Respondents**

The population in this study were Indonesian students especially for first-year students from outside Java at the State X University with 214 students spread across 25 provinces. The sampling technique used in this study was convenince sampling technique. Based on the Krejcie and Morgan sample tables with a population of 214, the total sample of 136 subjects.

#### **Research Instrument**

The instruments used in this study were the Smartphone addiction scale adapted from the Smartphone Addiction Scale (SAS) Kwon et al (2013), the Loneliness Adaptation Scale from the UCLA Loneliness Scale (Version 3) Russell (1996) and the Social Anxiety Scale created by the researchers themselves . Based on the tryout results on 30 respondents with r table 0.361 p, there is a smartphone addiciton scale, the validity coefficient ranges from 0.372 to 0.767 . The results of the validity test carried out on 33 items stated there were 26 valid items and 7 dead items . The value of  $\alpha$  is 0.912 . On the loneliness scale the validity coefficients range from 0, 361 to 0.748 . The results of the validity test conducted on 20 item statements contained 19 valid items and 1 item failed . The value of  $\alpha$  is 0.909 . On the social anxiety scale the validity coefficient ranges from 0.3 70 to 0.8 68 . The results of the validity test conducted on 45 item items stated that there were 39 valid items and 6 dead items. The value of  $\alpha$  is 0.946 .

#### Data analysis

The data analysis technique used in this study was multiple linear regression analysis of path analysis, which performed a regression of 4 times using SPSS release 20 software , and there

were four stages of the analysis procedure. The 4 stages of the analysis procedure consist of (Widhiarso, 2010):

- a. Estimate the –c: Y path with X as a (significant) predictor
- b. Estimating the –a: M path with X as a predictor (significant)
- c. Estimating path –b: Y with M as the predictor (significant)

d. Estimating the c`-path: Y with X and M as predictors (not significant)

## **RESULTS AND DISCUSSION**

### Assumption Test

## 1. Linearity Test

Testing linear aimed to see if two variables have a relationship that is linear or not is significant. Testing linear by using SPSS on test this, researchers use linearity at the level of significance of 0, 05. Told linea r value the test for 05. Based of significance (linearity) is less than 0. the results of testing the on linearity in gain value significance of 0.000 assumption of < from 0, 05 means that the research is there is a relationship that is linear between the two variables .

# 2. Normality test

The normality test is a normality test by looking at the normal probability plot that compares the cumulative distribution and the normal distribution. According to Ghozali (2011) the regression model is said to be normally distributed if the ploting data (points) that describe the data actually follow a diagonal line. Based on the results of ploting analysis (dots) follow a diagonal line so that it can be concluded that the regression model is normally distributed.



# 3. Multicollinearity Test

The multicollinearity test is to see whether there is a high correlation between the independent variables, then the relationship between independent variables to the dependent variable becomes dependent . Multicollinearity test in this study is by looking at the value of tolerance and the value of the variance inflation factor (VIF) According to Ghozali (2011) there is no symptom of multicollinearity if the tolerance value> 0.100 and the VIF value <10.00. Based on the results of the analysis, the tolerance value of the loneliness and social anxierty variables has a value of 0.376, which means> of 0.100 and the VIF value of each variable is 2.658, meaning <10.00 so that it can be concluded that no multicol inearity symptoms occur in this study.

# 4. Heterocedasticity test

Heterocedasticity test serves whether the regression to test model variance occurs from residual inequalities to one observation to another observation. Symptoms of variance that are not the same are called heterokedastisitas. In testing heterokedastisistas that is by using heterratasticity scratterplots. According to Ghozali (2011) heterocedasticity does not occur, if there is no clear pattern (wavy, widened

then narrowed in scatterplots images, and points spread above and below the number 0 on the Y axis. Based on the picture on the graph below, shows that the points spread in the sense of not forming a clear pattern that is a wave, and the points spread above and below the number 0 so that it can be concluded that there are no symptoms of heterocedasticity status in this study.



### **Demographic data**

### Table 1 . Demographic data

No.		Criteria	Ν	Percentage		
1.	Age					
	a.	18-19 years old	84	62.22%		
	b.	20-23 years	52	38.5%		
	с.	<24 years	4	2.96%		
2.	Gender					
	a.	Women	88	65.19%		
	b.	Man	47	34.9%		
3.	Duration of Smartphone Play					
	a.	0-2 hours	3	2.22%		
	b.	2-4 hours	25	18.51%		
	с.	5 hours	51	37.77%		
	d.	> 5 hours	57	42.22%		
4.	Data plan fees					
	a.	20,000-50,000	36	26.66%		
	b.	50,000-100,000	51	37.77%		
	с.	> 100,000	13	9.62%		
	d.	Wifi	35	25.92%		
5.	The most	frequently performed				
	activities		8	5.92%		
	a.	Streaming	16	11.85%		
	b.	Searching Lessons and				
	Inform	nation	2	1.48%		
	с.	Business	1	0.74%		
	d.	Online shopping	1	0.74%		
	e.	Playing games	107	79.26%		
	f.	Chat and social media				

6.	The most used application					
	a.	Whatsapp	76	56.29%		
	b.	Line	12	8.88%		
	с.	Youtube	15	9.62%		
	d.	Instagram	27	20%		
	e.	Facebook	2	1.48%		
	f.	Online game	2	1.48%		
_	g.	Movie streaming	1	0.74%		
7.	Favorite place to play smartphone					
	a.	Public places	8	5.92%		
	b.	Room	123	91.11%		
	с.	Campus	4	2.96%		

Based on the results of the calculation of demographic data responden, it can be seen that the characteristics of respondents in this study are as follows: The majority of subjects aged 18-19 years with a percentage of 65.22% or 84 subjects from the whole, then the second respondent aged 20 -23 years with a total percentage of 38.5% or as many as 52 respondents, the third respondent at the age of> 24 years with a percentage of 2.96% or as many as 4 respondents.

Characteristics of respondents by sex the majority of respondents are female, with a percentage of 65, 19% or as many as 88 respondents, then in the male sex with a percentage of 34.9% or as many as 47 respondents. Characteristics of respondents based on the amount of costs used to purchase data packages, the majority of respondents spent data package costs of 50,000-100,000 with a percentage of 37.7% or as many as 51 respondents, the second 20,000-50,000 with a percentage of 26.66 % or 36 respondents.

Characteristics of respondents based on activities that are often used in using smartphones are the majority of chatting and social media with a percentage of 79.26 or as many as 107 respondents. While the second searching subject matter and information with a percentage of 11.85% or as many as 16 respondents, the third business with a percentage of 1.48% or as many as 2 respondents, and the last one playing games and shopping online with a percentage.

Characteristics of respondents based on applications that are often used in playing smartphones the majority of subjects use the whatsapp application with a percentage of 56.29% or as many as 76 respondents, the second is Instagram with a percentage of 20% or as many as 27 respondents, the third is a youtube application with a percentage of 9.62% or 15 respondents. Characteristics of respondents based on favorite places to play smartphones the majority of favorite subjects playing smartphones in rooms with a percentage of 91.11% or as many as 123 respondents, the second was in a public place with a percentage of 5.9% or as many as 8 respondents, and finally that was on campus with percentage of 2.96 or as many as 4 students.

#### Data description

Based on data obtained from the results of the study grouped into five categories, namely very high, high, medium, low, and very low categories. According to Azwar (2012) this grouping is based on the deviation of the score value (X) which is the deviation of the average value respondent smartphone or Mean (M) in the Standard Deviation unit . In the addiction characteristics of 135 subjects having different smartphone addiction level categories, each data collection was obtained, namely 2.96% of subjects having very high smartphone addiction, 24.44% of subjects having a high addiction smartphone, 42.96% the subject has a moderate smartphone addiction, 28, 15% of subjects have a low smartphone addiction and 14.8% of subjects have a very low smartphone addiction .

In the characteristics of respondents 135 loneliness subjects have different levels of loneliness between each other, data collection obtained is 7.41% of subjects have very high loneliness, 22.96% of subjects have high loneliness, 41.48% of subjects

have moderate loneliness, 25.19% of subjects had low loneliness and 2.96% of subjects had very low loneliness.

On the characteristics of social anxiety respondents from 135 subjects had different levels of social anxiety categories from one another, data collection was obtained ie 2.96% of subjects had very high social anxiety, 22.22% subjects had high social anxiety, 48.15% subjects had moderate social anxiety, 24.44% of subjects had low social anxiety and 3.7% of subjects had very low social anxiety.

#### Discussions

The results of the research on the "path a" regression is that there is a significant influence between the loneliness variable on social anxiety, the F count value is 220.543 > 0.306 with a p value of 0.000 < 0.05 and a tcount of 14.851 > 1.65613 with a p value of 0.000 < 0.05 and Regression equation Y = 45,010 + 1,552 X, so that the hypothesis can be accepted that there is a loneliness effect on social anxiety for Indonesian students. The correlation coefficient (R) loneliness variable on social anxiety is 0.790, while the R square value is 0.624, which means that loneliness has an effective contribution or influence on social anxiety of 62.4%.

Bonetti et al. (2010) in their research explained that children and adolescents who identified themselves as feeling lonely significantly had a relationship that they also experienced social anxiety. This shows the higher loneliness a person has, the higher social anxiety in a person. Someone with loneliness tends to fail in making close friendships, because they have negative thoughts in conducting conversations and they also do not have the social skills needed to build social relationships, so they have difficulty building social relationships which if done can help develop social skills possessed and can help to get out of the condition of loneliness. Vanhalst, et all (2012) also supports the link between loneliness and social anxiety that late teens who experience loneliness tend to have low levels of agreeableness , unstable emotions, low self esteem , high depression, anxiety and social phobia. Social phobia is commonly known as social anxiety .

Based on a simple regression analysis on the "path b" model, the results obtained support the formulation of the second problem, namely there is a positive and significant influence between social anxiety on smartphone addiction. Based on the results of data analysis obtained F count 13.285> 0.306 with a value of p = 0.000 and tcount of 2.822> 1.65613 with a value of p = 0.006 < 0.05, and the regression equation Y = 56.517 + 0.204 X so that the hypothesis can be accepted that there is the influence of social anxiety on smartphone addiction for Indonesian Students.

Anxiety is common in the context of relationships with friends, social anxiety is an affective response from the results of low relationships with friends. Feelings of social anxiety impede social interaction, someone with social anxiety will lose the opportunity to socialize normally and also lead to problems in relationships with friends (Parisa & Leornardi, 2014). These feelings of social anxiety include excessive fear of social interactions or situations, and negative evaluations from others. Individuals with social phobia will avoid interacting and are afraid to do or say something embarrassing or that will make them feel ashamed and can even experience severe panic attacks in social situations (Nevid, Rathus, & Greene, 2005).

In relation to smartphone addiction, individuals with social anxiety will look for a new form of socialization where this form of socialization does not cause feelings of social anxiety. The results of the study that showed the influence of social anxiety on smartphone addiction were research conducted by Soliha (2015), the results of the study explaining that someone with high levels of social anxiety or who have social problems in their environment would tend to use social media and engage in in-depth online communication. Through smartphone media, people with social anxiety gain comfort by entering and interacting in cyberspace, because this is the only way for them to be able to develop social relationships with others.

The results of the "pathway c" regression model are proven to support the formulation of the third problem. That is, there is a significant influence between the loneliness variable on smartphone addiction. The results obtained by F count 17.681> 0.306

with a value of p = 0.000 < 0.05 and a tcount of 4.205 > 1.65613 with a value of p = 0.000 < 0.05, and a regression equation regression equation Y = 65.714 + 0.376 X so that the hypothesis is accepted that there is the effect of loneliness on smartphone addiction for Indonesian students. The effective contribution given is shown by the R square value of 0.117. This shows that loneliness gives effect or effective contribution to smartphone addiction by 11.7%. In addition, the effect of loneliness on smartphone addiction can also be demonstrated by.

Heinrich and Gullone (in Halim and Dariyo, 2016) stated that late teens who had entered university had a higher level of loneliness because at that age many experienced social transitions such as entering college. Loneliness can occur in foreign students outside Java because they live outside of their home region and are far from parents, but also experience changes in the environment that occurs.

Individuals who experience loneliness are susceptible to smartphone addiction because with the smartphone makes individuals get an activity that can divert these individuals from their loneliness. This in accordance with research by Darcin et al (2016)is that excessive smartphone use is interpreted as a form of overcoming the situation because smartphones provide different forms of socialization. In line with the research conducted by Dogan and Karakus's (2016) in his research explaining the loneliness of high school students causes an increase in the time they use to access the web system on social media, because generally the feeling of loneliness is more intense during adolescence. The increased use of smartphones is a result of teenagers trying to manage their loneliness feelings. On the other hand teenagers who experience loneliness more often use social web systems to engage in communication and usually use fake accounts that make them feel more relaxed and braver in their virtual environment than in the actual environment.

Beside the results of characteristic table respondent data on 100% of the Indonesian has a smartphone and 30.37% of the students felt the loneliness that is very high and tall, to measure loneliness was at 41, 48%. This illustrates that almost the majority, namely 71, 85% of Indonesian student, experienced loneliness above the average. Students who experience loneliness have a very big possibility for addiction to smartphones, as a processing of their loneliness.

According to Martin & Schumacher (2003) Individuals who are lonely tend to be attracted to the Internet and with excessive use, because social networks are provided more widely online and there are changes in communication patterns. Individuals who experience loneliness can join several forms of social activities in online interactions with friends or communities. Social interactions are changed online in a way that might appeal to individuals who are loneliness .

In some loneliness individuals, this can lead to an increase in internet usage in their lives. Based on research data the majority of research subjects played smartphones more than 5 hours per day, with a percentage of 42.22%, subjects who played smartphones for 5 hours a day were 37.77%, meaning 79.99% of research subjects spent time playing smartphones during 5 more hours per day. Young (2011) classifies individual online users who experience dependency can spend 40-80 hours per week. Looking at the duration of smartphone usage on research subjects each day takes up to 5 more hours, if multiplied by one week the research subjects can spend a minimum of 35 hours per week.

Agusta (2016) in her research mentioned the factors that cause smartphone addiction, one of which in internal factors is the high smartphone usage , thus giving an understanding that the higher the smartphone usage , the higher the level of smartphone addiction . Supported by research data that the majority of research respondents were in the category of moderate or above smartphone addiction at 70.36%.

The results of the regression model (path c ') have proven the research hypothesis that there is an effect of loneliness on smartphone addiction mediated by social anxiety. In this path, the results are not expected to be significant Based on the results of the analysis Based on the results of data analysis, the value of Fcount is 13.285> 0.306 with a value of p = 0.000 < 0.05 and t arithmetic 0.417 <0.165613 with a value of p, 077> 0.05, and a regression equation Y =

56.517 + 0.059 + 0.204 X While the R value is 0.409. In accordance with the rules of mediation variables that the results in path c 'should not be significant because the significance value is greater than 0.05, so the hypothesis can be accepted concluded that loneliness through social anxiety as a mediating variable affects smartphone addiction.

The effective contribution given by the variable social anxiety as a mediator is the effect of the loneliness variable on social anxiety indicated by the R square value of 0.168. This shows that loneliness through social anxiety gives effect or effective contribution to smartphone addiction by 16.8%, then there are 83.2% of other influential factors (factors not examined). Choi and Seo (2015) explain the indirect effects of avoidance of attachment to smartphone eaddiction through impulsivity, while Park and Lee (2014) mention that things such as self esteem, shyness, depression, and loneliness can be possible as predictive variables for smartphone addiction.

The role of mediating variables can be seen by looking at the significance value that explains the results of the significance value (p) > 0.05. This means that there is a significant influence between loneliness on smartphone addiction if it passes through mediating variables in the form of social anxiety. Besides that, it can also be seen by comparing the value of R square, namely the value of the effect or effective contribution given before passing the mediating variable with R square after passing the mediating variable. Based on the results of the analysis on line c, namely the effect of the loneliness variable on smartphone addiction, the value of the effect or effective contribution of 11.7%, while after entering the mediation variable, namely social anxiety, the R becomes 16.8%. meaning there is a higher value on the effect square value of loneliness for smartphone adddiction by 5.1%.

The results of research conducted by Subagio & Hidayati (2017) explain that the effect of loneliness or loneliness on smartphone addiction is only 3.6% while 96.4% is influenced by other factors such as gender, intended use, time, financial, and psychological. This illustrates that loneliness does not automatically affect the smartphone addiction but there are still many other things that may affect the smartphone addiction, including as explained by Subagio & Hidayati (2017) are psychological factors. In this case the researcher examines another thing, namely psychological factors in the form of social anxiety.

Sullivan (in Santrock, 2014) explains that when teenagers the need for closeness in social relationships is getting stronger, failure in building social relationships can lead to loneliness and reduced self-esteem. So that it illustrates that social skills are needed in determining a person's success in building social relationships with others. For Indonesian student especially in first-year oversease students from Java at PTN X, they really need social adjustment to their new environment. Overseas overseas students feel that the current environment is very different from the environment where they live so there is fear and anxiety that they make mistakes in starting conversations and behaving in front of others. Based on the results of interviews with students outside Java, they basically want to be friends with others and are happy if someone asks to talk, but if they start they feel awkward and afraid of being wrong .

Prawoto (2010) explains that not all individuals feel comfortable and safe in interacting, but there are also individuals who experience feelings of anxiety, fear or worry about the surrounding environment. Anxiety or concern related to social situations can be called social anxiety or social anxiety (Jatmiko, 2016). But this still requires students outside Java to interact with their environment. To make social adjustments to the environment, a person needs good communication skills, such as starting and maintaining close and productive communication, good ways of communicating, understanding the situation that maintaining communication with others requires communication strategies. So that it gives us a picture that social anxiety has an important role in the condition of loneliness in someone which leads to the behavior of smartphone addiction as a form of distraction of discomfort and a solution in finding other forms of socialization that are not found in reallife.

In line with research conducted by Bonetti et al (2010) the results show that children and adolescents who feel loneliness, they also report that they experience social anxiety. They communicate online significantly and more often discuss personal things, people in their lives,

intimate topics, past and present experiences. For children who feel the lonelines they value the internet more as a "protected" communicative environment where they can express better what they are willing and they also find conversations that are more satisfying than offline communication. Young people who experience loneliness indicate that they are more likely to communicate online so they don't feel shy, are able to do it, talk more comfortably, and dare to say more than in real life.

Based on the results of the research data the majority of subjects also are in their late teens or early adulthood that is 62.22% of the respondents were in the age of 18-19 years, in line with research conducted Darcin et al (2016) the average individual who experienced smartphone addiction is in age of approximately 19.5 years. In his study Darcin et al (2016) found that young people who use smartphones especially to access social networking sites have a much higher risk of addiction to smartphones compared to their friends who use smartphones only to googling and making phone calls.

terms In of the activities most frequently performed by subjects in playing smartphones are chat and social media that is equal to 79.26% then the second is searching for lessons and Information at 11.85%. This illustrates that Indonesian students use smartphones as medium tool communicate with others. They or to more often а а communicate online, rather than real life. From the description of the discussion it can be concluded that the Indonesian students has a smartphone addiction is influenced by factors of loneliness because students perantuan feel lonely, alien in their environment and not be afraid to start a relationship of friendship, besides that there are other factors that further increase the addiction to the smartphone is social anxiety factors .

### CONCLUSION

Based on the results of the analysis and discussion it can be concluded that there is a loneliness effect on smartphone addiction with social anxiety as a mediator variable for Indonesian students by obtaining the F count (13,285) with a p value of (0,000)  $<\alpha$  (0.05) and tcount 0.417 with p = 0.677> 0.05.

In the hypothesis test the determinant coefficient obtained R square value of 0.168 means that loneliness through social anxiety gives an effect or an effective contribution of 16.8% on smartphone addiction in the research subjects, while there are 83.2% is a contribution from other factors not examined by the researcher. When compared with the determinant correlation coefficient before incorporating social anxiety as a mediating variable, the R square value is 11.7%. So that the variable social anxiety mediates the effect of loneliness on social anxiety having a higher influence of 5.1%. A positive correlation value indicates the same direction of the relationship, meaning that the higher the loneliness and social anxiety the subject has, the higher the smartphone addiction on the subject, or vice versa.

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