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Instrument Analysis Fear of Missing Out

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Abstract

This study aims to develop and test the validity of the Fear of Missing Out (FoMO) measurement tool based on the theory of Przybylski et al. (2013). This measuring tool consists of 8 items and is tested on 50 students who use social media. The data collection method was carried out through a questionnaire distributed online. Data analysis includes evaluation of the validity and reliability of measuring instruments through item discrimination tests. The results of the analysis showed that one item did not meet the criteria of adequate discrimination, so it was declared disqualified. The remaining seven items showed a reliability coefficient (Cronbach's Alpha) of 0.85, indicating good internal consistency. Each valid item showed a significant correlation with the total score, meaning that the items effectively described the characteristics of FoMO in the respondents. FoMO is a psychological phenomenon in which individuals feel anxious about losing valuable experiences or information that is happening.

Keywords: Fear of Missing Out (FoMO), Validity and Reliability, Media Users

Introduction

The phenomenon of "Fear of Missing Out" or better known as FOMO can be interpreted as anxiety such as the loss of useful experiences resulting from people's desire for interpersonal attachment, this desire is based on people's need to have (Siagian, 2022). FOMO is often related to the use of social media, where a person feels the constant need to check for updates and activity on social media in order not to miss out on information or experiences that may be important or popular among friends and others around them (Sachiyati et al., 2023). This phenomenon arises due to the social pressure to engage in various activities and events, as well as due to the use of social media that allows us to see what others are doing constantly. FOMO can affect a person's emotional well-being and can lead to stress, anxiety, or feelings of inferiority if not addressed in a healthy way.

FOMO refers to the feeling of anxiety or fear that arises when a person feels that they are not following or missing something important or interesting that is happening in their social environment (Purba et al., 2021). Individuals who fall into the FOMO trap tend to feel dissatisfied with their own lives because they constantly compare themselves to others on social media who seem to have more interesting or valuable experiences. Research shows that these unhealthy social comparisons can lead to feelings of inadequacy and lack of confidence (Przybylski et al., 2013). The tendency to constantly check social media or try to keep up with

everything that is happening can also interfere with concentration and focus on important tasks, even distract from more important personal goals (Milyavskaya et al., 2018) In addition, reliance on social media as a source of information about what is happening in the world can lead to social isolation and loneliness because it is often unsatisfactory or does not meet expectations. Other research has also shown that this dependence can result in negative impacts on emotional well-being, such as stress and feelings of inferiority (Milyavskaya et al., 2018). Therefore, it is important for individuals to be aware of the negative impact of FOMO and take steps to limit exposure to situations that trigger such anxiety and focus on the things that are truly important and meaningful to their lives (Gupta & Sharma, 2021). FOMO is becoming more and more urgent in today's digital age, this phenomenon permeates everyday life stimulating anxiety and feelings of fear of missing out on experiences that seem interesting or valuable. FOMO encourages individuals to stay connected and relevant, individuals feel the need to constantly check for the latest updates, keep up with trends, and engage in various activities. This is similar to what Sachiyati said, FOMO is often related to the use of social media, where a person feels the constant need to check updates and activities on social media so as not to miss out on information or experiences that may be important or popular among friends and others around him (Sachiyati et al., 2023).

FOMO becomes like an endless cycle where individuals get caught up in trying not to miss out on any seemingly interesting or valuable experiences that happen on social media, causing stress, anxiety, and disruption to mental well-being (Milyavskaya et al., 2018). FOMO lies not only in the urge to engage in social activities, but also in professional and personal contexts. This encourages individuals to place value on external recognition and perception of others rather than on personal satisfaction. Therefore, understanding FOMO is important in maintaining a balance between social connection, productivity, and healthy mental well-being in this digital age.

Compiling a FOMO scale can help researchers and mental health practitioners to understand the extent to which individuals feel FOMO and how it affects their well-being. With a valid and reliable scale, we can assess the risk of FOMO in certain populations, such as adolescents, who may be more susceptible to the negative effects of social pressure (van Rooij et al., 2018).

The purpose of creating a FOMO (Fear of Missing Out) scale is to measure the extent to which a person experiences the fear of missing out in a certain social context or activity. This scale helps researchers or professionals in psychology and behavior to understand how significant feelings of FOMO are in an individual's life, as well as their impact on mental well-being and social behavior (Elhai et al., 2020). By understanding a person's FOMO level, appropriate intervention or self-

management strategies can be developed to overcome their negative impacts (Baker et al., 2016).

Literature Review

FOMO is a concern experienced by a person that others are doing activities that are more fun than or without him, where this feeling is triggered by updating other people's activities through social media (Przybylski et al., 2013). In the *oxford* dictionary, FOMO is described as a feeling of anxiety about interesting moments experienced by others that are written or posted through social media. Basically, FOMO is an individual's need to always be connected to other people's social activities (Christina et al., 2019). This behavior is certainly expressed by certain motivations or impulses so that it can appear as an action.

One of the theories that can explain motivation in individuals is Self Determination Theory (SDT). Psychological health is based on three basic psychological needs, namely competence, autonomy, and connectedness, and FOMO can be understood as a result of the lack of satisfaction of these three basic needs. Przybilsky said that SDT is an approach that states that the achievement of effective self-regulation and psychological well-being depends on satisfaction in fulfilling three psychological needs, namely the need for competence, autonomy, and connectedness (Przybylski et al., 2013).

Fear of missing out (FOMO) is a feeling of worry experienced by individuals because they are afraid of being left behind or even anxious about missing out on a precious moment that others are doing on social media without the involvement of the individual. *Fear of missing out* (FOMO) has three aspects, namely the unfulfilled need for connection with others, lack of independence, lack of one's own ability to achieve something.

According to (Przybylski et al., 2013) states several aspects of *fear of missing out* (FOMO), including:

a. Unmet psychological need for Relatedness

The desire to continue to connect with others is an individual's desire to continue to belong, connect and be together with others. In this situation, have a strong, warm relationship and pay attention to each other so that they have the opportunity to interact with people who are considered important. However, if the relatedness is not fulfilled, it causes a person to feel worried and continue to know what others are doing on social media.

b. The unfulfilled psychological desire for self

The psychological desire for self is related to competence and autonomy. Competence is an inherent need for a person to feel effective when interacting in the environment and to practice the ability to overcome challenges. Meanwhile, autonomy is an assessment when there are choices, support and encouragement that are connected to the beginning, care and end that are connected to behavior.

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This is carried out by oneself without any attachment or control from others. (Niemic, Lynch, Vanteenkiste, Bernstein, Deci and Ryan in Tekeng, 2015). However, if the psychological need for self is not met, then individuals will disseminate it through the internet to obtain various kinds of information.

Research Methods

The method used by this study is a quantitative method, data collection in this study uses a google form that is shared. The sampling technique uses *non-probability sampling* with a sampling method using *purposive sampling*, in the study obtained from 50 respondents who are students who are active social media users in Bekasi.

In this study, the respondents were asked to fill in a measuring device. This measuring tool was distributed using a questionnaire with *a fear of missing out* (FOMO) scale. The measurement used a likert scale model with 8 items, the scale used consisted of 5 answer choices, with explanations of (1) strongly disagree, (2) disagree, (3) neutral, (4) agree, (5) strongly agree.

The data obtained from the respondents were then analyzed using the power of discrimination and confirmatory analysis. The power of discrimination is carried out to eliminate items that are not correlated and the concept is used to find items that are suitable for the subject being studied.

Blue Print Scale FOMO

No	Dimension	Indicator	total
1	Low fulfillment of psychological needs and Relatedness	Worried when unable to join in experiences or activities that done by friends/other people	2
		Worried when friends/others have experience or activities which is better than me.	2
2	Low fulfillment of the psychological need for Self	Often find out what is going on occurs with friends/other people in in cyberspace	2
		Frequent updates to notify Self-news to the virtual world	2
total			8

After the *try-out was carried out* , there was one item that was declared disqualified

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Blue Print Scale FOMO After Try-out

No	Dimensi	Indikator	total
1	Low fulfillment of psychological needs and Relatedness	Worried when unable to join in experiences or activities that done by friends/other people	2
		Worried when friends/others have experience or activities which is better than me.	2
2	Low fulfillment of the psychological need for Self	Often find out what is going on occurs with friends/other people in in cyberspace	2
		Frequent updates to notify self-news to the virtual world	1
total			7

Results and Discussion

The results of the Cronbach's Alpha analysis test conducted using JASP (Jeffreys's Amazing Statistics Program) software received a point estimate of 0.867. The results show that 7 items used by researchers are reliable.

Table.1 Consistency Statistics Fear *of missing out* (FOMO) Scale

Estimate	Cronbach's α
Point estimate	0.867
95% CI lower bound	0.798
95% CI upper bound	0.916

Data obtained from the results of the measurement of 50 respondents

Cronbach's α (Alpha) is a measure of internal reliability or consistency. In this case, Cronbach's α is 0.867, which indicates that the scale has excellent reliability. According to Azwar (2012), a research instrument is stated to have a good level of reliability if the Cronbach's Alpha coefficient ≥ 0.60.

This 95% CI (Confidence Interval) provides a range in which we can be sure that the actual value is located, with a confidence level of 95%. In this case, we can be 95% sure that Cronbach's α is actually between 0.798 and 0.916, since this entire interval is above the threshold of 0.6 indicating that the scale is reliable.

Table .2 Statistical Reliability If Aitem Is Discriminated Against

	If item dropped
Item	**Cronbach's α**
i1	0.855
i2	0.843
i3	0.839
i4	0.852
i5	0.830
i6	0.859
i8	0.856

The table above shows the cronbach alpha if item deleted in each indicator of the FOMO variable in social media users. Cronbach alpha if item deleted can be interpreted as the cronbach alpha value obtained by FOMO on social media users if the item is deleted from the questionnaire. If the cronbach alpha if the item deleted exceeds the point estimate, then when the item is deleted, it will increase the alpha value.

Table.3 Chi-square calculation results

	Value	df	p
Model	39.674	14	< .001

The Chi-Suared value is a traditional measure to evaluate the overall fit of the model and assess the magnitude of the difference between the sample and the installed covariance matrix (Hu & Bentler, 1999). A good fit model will give insignificant results at a threshold of 0.05 (Barrett, 2007), so the Chi-Square statistic is often referred to as the 'badness of fit'.

$\chi 2$ which is relatively low against df (degree of freedom) with an insignificant p value ($p > 0.05$) (Hooper et al., 2008). Chi-square in this study has a high $\chi 2$ because the p-value is below 0.05, which is 0.001 so that the measurement model can be declared to be suitable.

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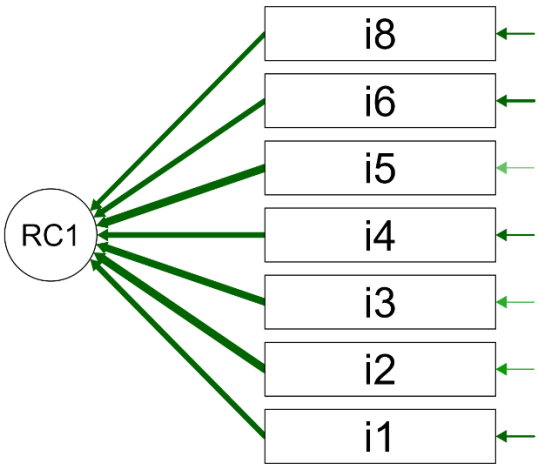
Table.4 Component Loadings RC1 & Uniqueness

	RC1	Uniqueness
i5	0.809	0.238
i2	0.807	0.391
i3	0.769	0.329
i1	0.673	0.467
i4	0.668	0.434
i6	0.665	0.528
i8	0.616	0.447

Note. Applied rotation method is promax.

In the context of Structural Equation Modeling (SEM), a uniqueness value of only 0.6 for the observed variable indicates that 60% of the variance in the variable is not explained by the proposed factor model. This means that most variances of variables are unique and not related to other factors in the model (Jolliffe, 2014). The table above shows that all uniqueness values are below 0.6 or < 0.6.

Fig.1 Path diagram of 10 gauge items



Based on the RC1 path diagram above, there is 1 measurement item that is not optimal in measuring *Fear of missing out (FOMO).* There are 7 subtracting items that are suitable for measuring academic stress. The items are i1, i2, i3, i4, i5, i6, and i8.

Table.5 Measurement Fit Indicator

Metric	Value
Root mean square error of approximation (RMSEA)	0.177
RMSEA 90% CI lower bound	0.108
RMSEA 90% CI upper bound	0.249
RMSEA p-value	0.003
Standardized root mean square residual (SRMR)	0.072
Hoelter's critical N (α = .05)	34.175
Hoelter's critical N (α = .01)	41.818
Goodness of fit index (GFI)	0.962
McDonald fit index (MFI)	0.803
Expected cross validation index (ECVI)	1.537

RMSEA is an absolute fit index that assesses how far the hypothesized model is from the perfect model (Xia & Yang, 2019). The application of RMSEA, CFI, and, TLI is highly dependent on a number of boundary criteria. Brown & Cudeck (1993) (in Xia & Yang, 2019) said that an RMSE value of < 0.05 indicates a "close fit" and a < of 0.08 indicates a "good fit" of reasonable model fits. In the RMSEA researcher table above, it shows that the value obtained is greater than 0.08 or RMSEA, which is 0.177 > 0.08, meaning that the data has a poor match (marginal fit).

Standardized RMR (SRMR) has a value ranging from 0 to 1.0 with the corresponding model obtaining a value of less than 0.05 (Byrne, 1998), but a value with a height of 0.08 is considered acceptable (Hu & Bentler, 1999). In the SRMR researcher table above, it shows an acceptable value with a result of 0.078

GFI (good of fit index) is a general rule of thumb that is recommended for the feasibility of a model with a GFI value greater than 0.90 and a maximum value of 1. A GFI value of ≥ 0.90 is a good fit, while a GFI of 0.80 ≤ ≤ 0.90 is called a marginal fit (Efendi & Purnomo, 2012). The GFI researcher table above shows good fit results with a value of 0.965 or GFI ≥ 0.90.

Based on the results of the reliability test using Cronbach's Alpha, the instrument used to measure Fear of Missing Out (FOMO) in 50 respondents showed very good results with a Cronbach's Alpha value of 0.867. According to Azwar (2012), an instrument with Cronbach's Alpha coefficient ≥ 0.60 is considered to have good reliability. In this case, a Cronbach's Alpha value of 0.867 indicates that the instrument has excellent internal consistency, meaning that items on that scale correlate well with each other and consistently measure the same construct. The confidence interval (95% CI) for Cronbach's Alpha is between 0.798 and 0.916,

which is completely above the 0.6 threshold. This reinforces the belief that the scale is reliable and suggests that in 95% of the probabilities, the true value of Cronbach's Alpha lies within the range, all of which indicate an excellent level of reliability.

From the item reliability table, the Cronbach's Alpha value if item deleted indicates that deleting item i5 will result in an increase in the Cronbach's Alpha value to 0.830, which is the highest value compared to other items. However, this increase is not significant to consider the item's removal, as all values are above 0.8 and close to the overall Cronbach's Alpha value. According to (Hooper et al., 2008) this shows that each item has a fairly good contribution in measuring the FOMO construct. Chi-square analysis yielded a $\chi 2$ value of 39.674 with a degree of freedom (df) of 14 and a p-value < 0.001. A significant p-value ($p < 0.05$) indicates that the measurement model has a significant difference with the covalent matrix installed, indicating a model mismatch. However, it is important to remember that Chi-square is very sensitive to sample size, and on larger samples, even a good model can show significant results.

Further evaluation of the model fit indicator shows that an RMSEA value of 0.177 indicates a poor model fit, as this value is greater than 0.08. According to (Hu & Bentler, 1999) this means that the hypothesized model does not fit into a perfect data model. However, the SRMR value of 0.072 is within the acceptable limit (< 0.08), indicating that the difference between the observed and hypothesized correlation matrices is still acceptable. A GFI value of 0.962 indicates an excellent match (≥ 0.90), indicating that the model has a good degree of agreement with the observed data. An MFI value of 0.803 indicates a slightly lower match rate, but still within acceptable limits. An ECVI value of 1,537 gives an idea of how well the model can be generalized to a broader population. The uniqueness value indicates that most of the variance on each item is explained by the proposed factor, with values all below 0.6. This suggests that the observed variable has a considerable variance that is explained by the factor model.

Conclusion

Based on the results of the analysis, the instrument to measure Fear of Missing Out (FOMO) shows excellent reliability with a Cronbach's Alpha value of 0.867, which is well above the threshold of 0.60 according to Azwar (2012). The 95% confidence interval reinforces this reliability, being between 0.798 and 0.916. Although there was a slight model mismatch indicated by a significant Chi-square value, other indicators such as SRMR (0.072) and GFI (0.962) showed an acceptable to excellent fit. An RMSEA value of 0.177 indicates a poor fit, but a uniqueness value indicates that the variance described by the model is quite adequate. Overall, the instrument is rated quite well and can be used with some further improvements to improve the overall fit of the model.

To improve the quality of the Fear of Missing Out (FoMO) measurement instrument, several improvements can be made. First, with an RMSEA value of 0.177 indicating poor model fit, it is recommended to revisit existing items, reduce model complexity, or add new, more relevant items. External validation with a larger and more diverse sample, as well as testing in a variety of contexts, will help ensure reliability and more general validity. Individual item analysis and reliability retesting will reinforce the consistency of the instrument. Evaluation of variance contributions by items and the use of additional analysis methods such as multi-trait multi-method (MTMM) can help improve the validity of construction. Addressing the discrepancies shown by Chi-square with alternative estimation methods and involving experts in psychometrics can provide further guidance for refinement. These measures are expected to improve the conformity of the model and improve the overall effectiveness of the instrument.

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