Construction Of The Subjective Well-Being Scale

Adi Saputra, Fatwa Tentama

Abstract: The purpose of this study is to examine the construct validity and reliability of subjective well-being variables and analyze the components and indicators that can form subjective well-being variables. Subjective well-being is measured by two components, namely life satisfaction and affect. The subjects in this study were 60 online motorcycle taxi partners operating in Yogyakarta. The method of data collection uses a scale of subjective well-being. Data in this study were analyzed using Structural Equation Modeling (SEM) SmartPLS 3.2.8 with reflective constructs through CFA 2nd Order. Based on the results of the analysis of the construct validity and the construct reliability, the components and indicators that form subjective well-being on the online motorcycle taxi partner are declared valid and reliable. This shows that all components and indicators that exist are able to reflect and form subjective well-being. Thus the model can be accepted because the theory that describes subjective well-being is in accordance with the empirical data obtained.

Keywords: Affect, CFA 2nd Order, Construct Validity, Construct Reliability, Life Satisfaction, Partial Least Square, Subjective Well-being

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1 INTRODUCTION

Technology continues to experience development, one of the professions that emerged from the development of these technologies is an online motorcycle taxi. The existence of an online motorcycle taxi is very needed by the general public, in its function which is not only as a means of transportation but also as a buyer of food or delivering goods. Online motorcycle taxi drivers are required to be nimble and quick in carrying out their work, with work that is so complex it is not uncommon for motorcycle taxi drivers online to experience negative emotions. Diener, Kesebir, and Lucas [1] said the experience of negative emotions is included in the negative affect. High negative affect can make individual subjective well-being low. Based on the results of interviews conducted with online motorcycle taxi drivers, they claimed to often experience negative emotions such as fear, nervousness, anxiety and shame. These things are caused by several things including the status of the drivers in the company, termination of employment that can be done suddenly, until it is often underestimated. The impact of subjective well-being according to Diener [2] is divided into two, namely: positive impacts and negative impacts. The positive impact of subjective well-being that is interested or interested in something (interested), excited, strong, and enthusiastic, alert or ready alert, proud, inspired, determined, attentive, and active. The negative effects of subjective well-being are sad or distressed, disappointed, guilty, scared, hostile, irritable, shamed, nervous (jittery), and worried (afraid). Individuals with a high level of subjective well-being will feel more confident, be able to establish social relationships better, and show better work performance, in addition people with high subjective well-being people can make adaptations and coping more effectively [3]. Individuals are said to have high subjective well-being if the individual feels satisfaction in his life, often feels joy, and rarely feels unpleasant emotions such as anger and sadness.

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Increased subjective well-being correlated with improved sleep quality and decreased blood pressure, so it can be said that subjective well-being affects physical health [4], mental health [5], reduces the risk of death [6] better social relations [1]. Subjective well-being also has an impact on how individuals perceive their profession, a number of studies show that high subjective well-being can increase higher income [1], and increase productivity and reduce fatigue or stress in work [7]. Besides that individuals who have a high level of subjective well-being will live happier lives [8]. The first study of happiness was conducted by Wilson [9] which concluded that happy people are characterized as young, healthy, educated, high-income, extroverted, optimistic, worry-free, religious, married, with high self-esteem, high work morale, and simple aspirations. In the decades since Wilson [9] review the investigation of subjective well-being has broadened not only the correlations and characteristics of happiness but also the underlying processes, interactions between internal and external circumstances, but also extends to how individuals perceive their lives. Subjective well-being was first introduced by Diener [2] as a means of identifying the fields of psychology that try to understand their quality of life, through cognitive assessment and affective reactions [12]. Diener [10] defines subjective well-being as a person's evaluation of his life, which consists of affective and cognitive evaluation. Specifically, subjective well-being consists of two components, namely the affective component which refers to the hedonic view of the predominance of positive affection over negative affection, and the cognitive component that refers to satisfaction with life in general. Veenhuoven [11] explains that subjective well-being is an evaluation of the quality of an individual's life that shows whether his life is in accordance with expectations or not. The evaluation is cognitive and affective. Cognitive evaluation includes how a person feels satisfaction in his life. Affective evaluation includes how often a person feels positive emotions and negative emotions. Individuals are said to have a high level of subjective well-being if they feel satisfaction in life, often feel positive emotions such as joy and affection and rarely feel negative emotions such as sadness and anger [12]. Components of subjective well-being include cognitive and affective. The cognitive component is an evaluation of life satisfaction, which is defined as an assessment of one's life. The affective component of subjective well-being reflects the basic experience in events that occur in one's life. By examining the types of affective reactions that exist, a researcher can understand how a person evaluates the conditions and events in his life. Positive affect in subjective

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well-being includes joy, gratitude, and meaningfulness and negative affect which includes anger, sadness, and worry. The cognitive component in subjective well-being refers to one's life satisfaction [13]. Subjective well-being is a broad picture that refers to all forms of evaluation of one's life or emotional experience, such as life satisfaction, positive affect, and low negative affect [14]. Compton [15] argues that subjective well-being is divided into two main variables, namely happiness and life satisfaction. Happiness is related to the emotional state of individuals and how individuals feel themselves and their world. To find out someone is happy or not, that person will be asked to explain about their emotional state and how they feel about the world around themselves. According to Russell [16] subjective well-being is an individual's perception of his life or an individual's subjective view of his life experience. Subjective well-being in this case is very important to be improved, because it relates to how a person lives his profession well. Subjective well-being is considered as satisfaction with one's life, both in general and in specific terms such as social relations, health and work [17]. Research related to subjective well-being lately shows that subjective well-being influences how individuals carry out tasks in their work [18], Happiness [19], Anxiety [20], Resilience [21], and health [6]. Measurement of subjective well-being has been done in various studies. Most recent studies focus on subjective well-being in individuals with various types of professions and circumstances, for example the teaching profession [22], nurses [7] and so on. One reason subjective well-being improves health and longevity is because people who have high levels of subjective well-being are more likely to show healthy living behaviors such as exercising, not smoking, and wearing a seat belt [13]. In a study it was found that high subjective well-being can make a person avoid sleep disorders [23].
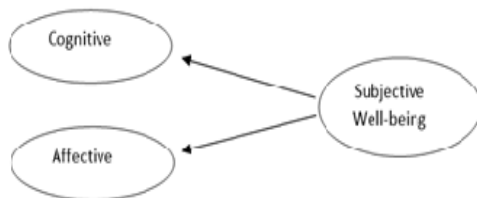

Fig. 1. *Conceptual Framework for Confirmatory Factor*

Analysis Subjective well-being Variables

H: Factors or indicators of life satisfaction (life satisfaction) and affective (affective) are able to form the construct of subjective well-being.

One approach that can be used in testing the construction of a measuring instrument is Confirmatory Factor Analysis. Confirmatory Factor Analysis (CFA) is one of the main approaches in factor analysis. CFA can be used to test the dimensionality of a construct. This test is used to measure the model (model measurement) so that it can describe the components and indicators of behavior in reflecting latent variables namely subjective well-being by looking at the factor loading of each aspect that forms a construct. Confirmatory Factor Analysis (CFA) is also used to test the validity of the extracts and the reliability of the constructs of the indicators

(items) forming latent constructs [24]. The CFA used in this study is a second order confirmatory factor analysis (2nd Order CFA), a measurement model that consists of two levels. The first level of analysis is carried out from the latent construct of the component to its indicators and the second analysis is carried out from the latent construct to its dimension construct [24]. Based on the description above, it can be concluded that subjective well-being is an important thing in life. Considering the importance of subjective well-being to be investigated, the formulation of the problems in this study are: 1) Is the construct of subjective well-being valid and reliable? And 2) Are indicators of life satisfaction (affective) and affective able to form the construct of subjective well-being? This study aims to test the construct validity and reliability of subjective well-being variables and analyze the components and indicators that can form subjective well-being variables.

2 METHOD

2.1 Subject
The subjects in this study were 60 online motorcycle taxi partners operating in Yogyakarta.

2.2 Research Design
The design in this study is semi-construction, where the scale design will be done using theoretical collaborative studies with information directly obtained from field data. The advantage of using this semi-construction design is to strengthen existing theories and reproduce as many behavioral indicators as possible. Then testing the psychometric properties, including content validity analysis, discriminating power, confirmatory factor analysis, and external concurrency validity [25]

2.3 Instrument
Data collection method This study uses a scale adopted from Diener [2] where the scale is in the form of a Rating Scale, the scale consists of several components of life satisfaction (Example: I am satisfied with my life) and the affection component (Example: Hurt & Anxious).

TABLE 1
BLUE PRINT SUBJECTIVE WELL-BEING

Component	Indicator	Item Number	Frequency
Life Satisfaction	Evaluation of life satisfaction globally (life satisfaction). Evaluation of satisfaction in domains such as physical and mental health, work, recreation, social and family relationships.	1,2,3,4,5	10
	a. Positive Affect Interested or interested in something (interested) Excited (excited) Strong Enthusiastic	6,7,8,9, 10,11,12 ,13,14,1 5	10
Affect	Alert or Alert Proud (proud) Enthusiastic (inspired) Determined (determined) Attentive (attentive) Active (active))		
	b. Negative Affect Sad or distressed disappointed		

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Guilty		
Scared		
Hostile		
Irritable		
Embarrassed (shamed)		
Restless (nervous)		
Nervous (jittery)		10
Worried	16,17,18,19,20,21,22,23,24,25	
Total		25

2.4. Construct Validity and Reliability

2.4.1 Construct Validity
This research is intended to test the validity and reliability of constructs of subjective well-being measuring instruments with an outer model test. The construct validity test conducted is confirmatory in order to show how well the results obtained from the use of measuring instruments with reference to the theory used in defining the construct. The construct validity test included convergent validity, referring to the results of the loading factor value > 0.5, the average variance extracted value or AVE > 0.05 and the discriminant validity was performed by comparing the roots of the average variance extracted or AVE where the value must be higher than the correlation among the components that exist. Next is the reliability test with the aim to show internal consistency in the measuring instruments used. The trick is to look at the value of composite reliability and Cronbach's alpha where according to Cooper the value that must be owned is > 0.7 [26].

2.4.2 Construct Reliability
Reliability test is performed to see the internal consistency of the measuring instrument by looking at the value of composite reliability and Cronbach's alpha with a higher value, it will show the consistency value of each item in measuring latent variables. According to Hair, Hult, Ringle, and Sarstedt [27] the expected composite reliability and cronbach's alpha value is > 0.7 and the value 0.6 is still acceptable, then according to Cooper the internal consistency test has also been met if the validity of the extract has met the criteria so that the average variance extracted value (AVE) has represented internal consistency, because the construct is valid, then the construct is reliable but on the contrary a reliable construct is not necessarily a valid construct [26].

2.5 Data Analysis
The data in this study were analyzed using the Smart PLS 3.2.8 program with reflective constructs through the 2nd Order CFA. According to Hartono and Abdillah [28] PLS is a variance-based structural equation analysis (SEM) that can simultaneously test measurement models to test the validity and reliability.

3   RESULT
Based on the analysis of the outer model test on the scale of subjective well-being conducted using the Smart PLS 3.2.8 program, it can be seen the results as shown in the figure below:
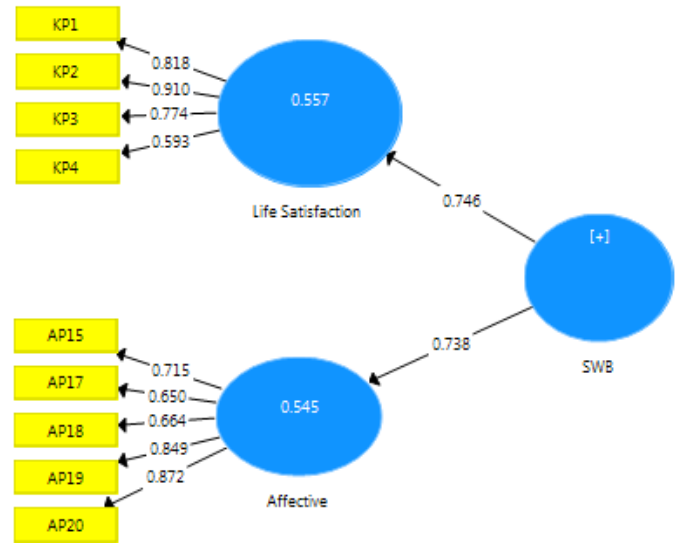

Fig. 2. *Outer Test Output of the Subjective well-being construct model*

3.1 Convergent Validity
Based on the test of convergent validity on the outer model, it was found that the value of factor loading from variables to components has a value > 0.5 shown in the table 2.

TABLE 2
LOADING FACTOR (VARIABLE-COMPONENT)

Component	Loading Factor	Information
Life Satisfaction	0.746	Valid
Affective	0.738	Valid

Based on the test of convergent validity on the outer model, it was found that the loading factor value of the components to the indicators has a value > 0.5, which is shown in the table 3.

TABLE 3
LOADING FACTOR (COMPONENT-INDICATOR)

Item	Value of Loading Factor	Information
KP1	0.818	Valid
KP2	0.910	Valid
KP3	0.774	Valid
KP4	0.593	Valid
AP15	0.715	Valid
AP17	0.650	Valid
AP18	0.664	Valid
AP19	0.849	Valid
AP20	0.872	Valid

Based on the test of convergent validity on the outer model, it was found that the loading factor value of the components to the indicators has a value> 0.5, which is shown in the table 4.

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TABLE 4
THE VALUE OF AVERAGE VARIANCE EXTRACTED (AVE) SUBJECTIVE WELL-BEING

Component	AVE Value	Information
Life Satisfaction	0.612	Valid
Affective	0.571	Valid

3.2 Discriminant Validity

Based on the discriminant validity test values, the root results of the Average Variance Extracted or AVE in each component are higher than the average variance extracted root or AVE in other components, so that the discriminant validity criteria are met. Average Variance Extracted Root Value (AVE) construct of subjective well-being can be seen in table 5.

TABLE 5
ROOT VALUE AVERAGE VARIANCE EXTRACTED (AVE) SUBJECTIVE WELL-BEING

Component	Life Satisfaction	Affective
Life Satisfaction	0.782	0.204
Affective	0.204	0.711

Validity Construct in SEM (Confirmatory Factor Analysis or CFA) shows that all four indicators are valid with a loading factor value $(\lambda) \geq 0.5$.

3.3 Construction Reliability Test

Based on the results of the reliability test that has been done, the construct reliability of subjective well-being has fulfilled the requirements with alpha cronbach's and composite reliability > 0.7, it can be seen in Table 6 below:

TABLE 6
VALUE COMPOSITE RELIABILITY AND CRONBACH'S ALPHA CONSTRUCT SUBJECTIVE WELL-BEING

Variable	Composite Reliability	Cronbach's Alpha	Information
Subjective Well Being	0.806	0.679	Reliable

The results of construct reliability testing using the Confirmatory Factor Analysis 2nd Order in Table 6 above show that constructs have good reliability and give meaning that the components that measure latent subjective constructs of well-being meet unidimensional criteria [27]. This is indicated by the value of Composite Reliability 0.806 and Cronbach's Alpha 0.679. Based on the processing and analysis of research data on the dimensions of the variable or construct subjective well-being formed using the Confirmatory Factor Analysis 2nd Order, the results show that the model is acceptable, because all components are able to reflect the variables or constructs that are formed.

4 DISCUSSION

Based on the results of the analysis of construct validity and construct reliability, the components that form subjective well-being are declared valid and reliable. This shows that all the existing components are able to reflect and form subjective well-being. The dominant component that reflects subjective well-being is the evaluation of global life satisfaction, with a loading factor of 0.910. The main indicators of life satisfaction are evaluation of global life satisfaction and evaluation of satisfaction in domains such as physical and mental health, work, and recreation, social and family relationships. Global life satisfaction is intended to present an individual's overall and reflective assessment of his life. More specifically, individual life satisfaction involves individual perceptions of the comparison of their living conditions with their unique standards. Evaluation of satisfaction in certain domains is an assessment made by individuals in evaluating domains in their lives, such as physical and mental health, recreation, and work, social and family relationships. Evaluation of life satisfaction globally is a reflection of individual perceptions of things that individuals experience in their lives. Individuals with high levels of life satisfaction have good acceptance, positive relationships with others, and life and personal goals that develop. Life satisfaction makes individuals want to continue to live and work, even to produce something and indirectly can make individuals live long. The lowest component that reflects subjective well-being is the negative affect component with a loading factor of 0.664. The main indicator of negative affect is guilty. The emergence of negative affect in the self indicates that the individual experiences negative emotions in carrying out his profession. Negative affect is the prevalence of unpleasant emotions and reflects negative responses experienced by individuals as a reaction to life, health, circumstances, and events experienced. The findings of this study are in line with research conducted by research conducted by Akhtar [29] which proves that subjective well-being meets the reliability requirements of 0.80 with the highest component being cognitive or life satisfaction with a loading factor of 0.826 and the lowest component is affection with loading factors of 0.853 while the reliability in this study was 0.679 with a cognitive component or life satisfaction with a loading factor of 0.910 and the lowest component was an affection with a loading factor of 0.664. The results of this study are expected to provide an overview of the validity and reliability of the construct of subjective well-being on online motorcycle taxi drivers in Yogyakarta so that it can be used as a reference in subsequent studies related to subjective well-being, especially relating to subjective well-being of public transportation drivers.

5 CONCLUSION

Based on the results of the analysis and discussion it can be concluded that the construct of subjective well-being fulfills good validity and reliability. All components or indicators can significantly form the construct of subjective well-being, where the components that have a dominant influence on subjective well-being are cognitive or life satisfaction with a loading factor of 0.910. The weakest component that reflects subjective well-being is the negative affect component with a loading factor of 0.664.

6 ACKNOWLEDGMENT

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