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Facts behind the behavioral intention to use the GO-JEK application

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Abstract

This study aims to determine the effect of perceived usefulness, perceived ease of use, attitude toward using, and several external factors (perceived self-efficacy and perceived convenience) on behavioral intention to use GO-JEK applications using the TAM model. This study uses a quantitative approach. As a result, perceived usefulness, perceived ease of use, attitude toward using, and several external factors (perceived self-efficacy and perceived convenience) influence behavioral intention. In conclusion, users with a positive outlook, after trying the GO-JEK application for the first time, will evaluate the use of the application.

Keywords: Startup, Application, Online motorcycle taxi.

Hechos detrás de la intención de comportamiento de usar la aplicación GO-JEK

Resumen

Este estudio tiene como objetivo determinar el efecto de la utilidad percibida, la facilidad de uso percibida, la actitud hacia el uso y varios factores externos (autoeficacia percibida y conveniencia percibida) sobre la intención conductual de usar aplicaciones GO-JEK utilizando el modelo TAM. Este estudio utiliza un enfoque cuantitativo. Como resultado, la utilidad percibida, la facilidad de uso percibida, la actitud hacia el uso y varios factores externos

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(autoeficacia percibida y conveniencia percibida) influyen en la intención del comportamiento. En conclusión, los usuarios con una perspectiva positiva, después de probar la aplicación GO-JEK por primera vez, evaluarán el uso de la aplicación.

Palabras clave: Inicio, Aplicación, Moto taxi en línea.

1. INTRODUCTION

Indonesia ranks fourth in the world as the country with the biggest number of smartphone users. Indonesia is one of the markets, which is considered to be profitable for companies making smartphone applications, both domestically and abroad. This is because to aside from having a quite busy web traffic. Indonesia also has the 4th largest population in the world. The smartphone applications in recent days are not only focused on social media and chat. Smartphone applications have now penetrated many business sectors, such as the transportation sector in the form of an online motorcycle taxi (GO-JEK).

GO-JEK can also be dubbed as a revolutionary figure in the field of transportation. Before it was launched, ordering a motorcycle taxi is done by calling the server. Then, the server will find the closest driver to the customer. However, since GO-JEK was launched in 2015, it became the first application that allows someone to hail a motorcycle taxi service from an application that can be accessed online. Ordering a motorcycle taxi is now perceived to be simpler. GOJEK application service users can simply tap the application to enter, choose their pickup point and destination, and order a motorcycle taxi.

Because of its innovation, in 2015 GO-JEK received an award at the gadget and telecommunications equipment exhibition event, the Indonesia Cellular Show (ICS) category of the Best Mobile App 2015. GO-JEK application is the most widely used smartphone application in Indonesia. This application is used by 54.3 percent of smartphone users in Indonesia above Tokopedia and Bukalapak. Besides, in the Playstore, the GO-JEK application has been downloaded by 50 million smartphone users in 2019.

Several factors influence smartphone users in choosing an application. Users tend to prioritize application performance. This is due to not all smartphone applications have good performance. In addition, the performance of an application is often hampered because of the inability of users to accept and use existing systems (BROWN, 1990). The acceptance of a smartphone application by the user can be determined by knowing the users' intention to use it. Behavioral intention to use is a possibility for someone to act on a certain behavior and might become a determining factor for one's acceptance and rejection towards an information technology. In TAM (The Technology Acceptance Model) theory, behavioral intention to use is influenced by two factors: perceived usefulness, and perceived ease of use (JAYAWARDHENA & FOLEY, 2000).

Perceived usefulness is a level where someone believes that a system can improve performance at work. A system is well-received by the users if it benefits the users and helps their work. Users tend to use products that can meet their needs, easy to use, and can be used in

their environment. When a user sees that a system helps him in completing a task, he will most likely choose to use the system. Perceived ease of use refers to a level where someone believes that using a system does not need to bother. An information system is said to be easy to use if the system requires few resources. As with perceptions of usefulness relates to how users will select a system that will be used. When a user sees that a system does not require a lot of energy to be used, he will choose the system.

Both of these factors affect the attitude towards using. The perception that is formed when someone uses information technology will shape their attitude toward using technology. This attitude of use will later have a direct effect on behavioral intention to use. If someone is sure that the information system is easy to use and useful in completing his work, he will most likely use and be attached to the system.

Aside from perceived usefulness, perceived ease of use, and attitude toward using, there are two external factors, namely perceived self-efficacy and perceived convenience. Self-efficacy is a belief in one's ability to motivate cognitive resources and a series of actions needed to meet the demands of the situation at hand. Perceived self-efficacy is a person's belief in his ability to do a job (AJZEN, 1991).

Another external factor is the perceived convenience. Perceived convenience deals with ease in regards to time, place, and work perceived by someone when using an information system to complete

their tasks. The convenience of a customer is a crucial factor since it can be an attraction for new customers as well as maintaining the needs of the old customers (CHANG, YAN, & TSENG, 2012). The more comfortable users are in using a product, the greater their intention to reuse the product.

Perceived self-efficacy and perceived convenience will directly affect the perceived ease of use and perceived usefulness of a product. The higher one's self-efficacy, the more optimistic he is in completing a job. With a sense of optimism, a user tends to perceive that a system will be useful in assisting them to complete work. Besides, when users start to regard a system as comfortable in terms of use, they will tend to perceive that the system is also easy to use.

Although it has been downloaded at least 10 million times, it does not necessarily indicate that GO-JEK's performance has satisfied its users. The evidence can be seen from the negative review given by some users of the application on Google Play Store, such as I cannot log in. The captcha keeps appearing. What should I do? or GPS often experiences error when it is raining, please improve the system (SHACKEL, 1991).

Some research related to behavioral intention to use information technology has been conducted previously. Several have used TAM to explain the factors of selection and usage of information technology and smartphone application, such as (CHANG ET AL., 2012; GRAVILL & COMPEAU, 2008). Therefore, the researches would like

to examine the level of acceptance (Behavioral intention to use) of GO-JEK application using the TAM model. The purpose of this research is to determine the effect of perceived usefulness, perceived ease of use, attitude toward using, and several external factors (perceived self-efficacy and perceived convenience) on behavioral intention to use GO-JEK application using the TAM model.

2. METHODOLOGY

This study uses a quantitative approach. This research focuses on identifying variables of phenomena and measuring their relationships which will create a fundamental relationship between empirical observation and statistical analysis. The data in this study are the results of questionnaires distributed to respondents online. The sample used in this study was 193 respondents from the GO-JEK application service in Indonesia. The respondents were taken using a simple random sampling technique.

The instrument used in this study was a questionnaire distributed to 193 samples. The questionnaire was distributed online. The questionnaire consisted of 24 questions related to the benefits of the GO-JEK application in their daily lives and work, the ease of use of GO-JEK, and its efficacy and comfort. Besides, there are several questions regarding the general identity of respondents such as age, recent education, and gender. This was done to determine the criteria for respondents in this study. Based on the introduction, there are 2

variables in this study, namely independent, dependent and other variables. The independent variable in this study is the Behavioral intention to use. Whereas the dependent variable consists of perceived self-efficacy, perceived convenience, perceived ease of use, attitude toward using, and perceived usefulness (HOLDEN & RADA, 2011).

This study applied Partial Least Square (PLS) with SmartPLS3 software as an analysis technique. The aim is to seek the interaction between variables as a whole which emphasizes hypotheses testing. In SmartPLS 3 there are 3 outer model tests including convergent validity, discriminant validity, and reliability which include loading factor, cross-loading, and composite reliability. For the initial research and development of measurement scales, an outer loading value of 0.50 to 0.60 is considered sufficient (CHIN, 1998). In this research, the outer loading value of 0.50 is used. There is a discriminant validity test which can be seen from the cross-loading value. The accepted cross-loading value is> 0.7, however, the value 0.6-0.7 is still accepted. The value of cross-loading itself must be greater in the variables arranged than the value of other variables. In the outer model, there is also a reliability test that includes composite reliability. Composite reliability value is accepted if >0.7, however, the value 0.6-0.7 is still accepted.

Next up is the Inner Model Test. Structural models describe the relationships between latent variables based on substantive theory. This test makes the relationship between variables specific. Structural models can be measured by looking at the r-square value which shows how much influence between the main variables in the research model.

Besides, through this model, we can know the estimated value of the path coefficient and statistics through the Bootstrapping procedure. This is done to identify how significant the relationship between variables and the direction of the relationship. The inner model is tested with the goodness of fit test and the effect significance test.

3. RESULT

From the results of the questionnaire, we found that respondents in this study consisted of 61 male and 139 female respondents. Their age varied, 1 person is less than 17 years old, 181 people aged 17-25 years, and the remaining 11 people aged more than 25 years. Besides, their professions also vary. There are 5 respondents are currently not working, 128 people are students, 34 people are private employees, 16 people work as civil servants, and 10 people work as entrepreneurs. As for their last education, there is 1 respondent who is in junior high school, 78 respondents are high school students, 119 respondents have a bachelor and diploma degree, 1 respondent has a master degree, and the remaining 1 respondent has a magister degree.

This description is derived from the mean variation of the answer score of respondents on a five-point Likert scale. Class intervals were applied to categorize the mean values of the respondent's answers. Based on a class interval of 0.8, a mean of 100 is obtained;<mean>1.80 strongly disagree, 1.80 <Mean 2.60 disagree,

2.60 Mean, 3.40 neutral, 3.40 Mean, 4.20 agree, 4.20 Mean, 5.00 strongly agree.

There are three question indicators on the Perceived self-efficacy variable. Distribution of respondents' answers on the variable perceived self-efficacy which shows the highest mean value is in the PSE2 item with a value of 4.44, which is included in the criteria of strongly agree. This shows that the majority of respondents felt that they could operate the GO-JEK application without the help of others. The smallest mean value is indicated by item PSE1 which has a value of 4.16, which is included in the agreed criteria. This means that the majority of respondents feel that they can operate the GO-JEK application without any user guidance. Overall, the average value of the perceived self-efficacy variable is 4.30. Respondents agree that they believe they can use the GO-JEK application.

The perceived convenience variable also consists of three question indicators. Respondents' answers to the perceived convenience variable indicate that the highest mean value is PC1 with a value of 4.33, which is included in the criteria of strongly agree. This means that most respondents perceive that ordering through the GO-JEK application is a convenient way to get motorcycle taxi services. While the smallest mean value is indicated by item PC2 which has a value of 3.94, which is included in the agreed criteria. This means that most respondents feel that they can order GOJEK from anywhere with the GO-JEK application. Thus, the average value of the perceived

convenience variable is 4.15. This indicates that respondents agree that the GO-JEK application is convenient to use.

Different from the 2 previous variables, the perceived usefulness variable consists of five question indicators. The results of the questionnaire on the variable of perceived usefulness with the highest mean value are on item PU5 with a value of 4.33, which is included in the criteria of strongly agree. This shows that most respondents felt that with GO-JEK, ordering motorcycle taxi is more efficient. Meanwhile, the smallest mean value is PU3 and PU4 items with a value of 3.91, which is included in the agreed criteria. This shows that the majority of respondents felt that they became more productive and could also get their job done more easily. The total value of the perceived usefulness variable is 4.13. This shows that respondents agree that the GO-JEK application is useful for completing their work.

For the perceived ease of use variable, there are six question indicators on the questionnaire. The results of the questionnaire showed that on the perceived ease of use variable, the highest mean value was found in PEOU3 and PEOU6 with a value of 4.49. This value is included in the strongly agree criteria. This means that most respondents felt that the GO-JEK application is easy to be learned and used. Whereas the smallest mean value is shown by item PEOU2 with a value of 4.25. This value is included in the strongly agree criteria. This indicates that the majority of respondents felt that the procedure of ordering a motorcycle taxi service is not complicated. Thus, overall,

the average value of the perceived ease of use variable is 4.44. That is, respondents agree that using the GO-JEK application is easy and simple.

As for the attitude toward using a variable, there are three question indicators. The results show that the highest mean value on the attitude toward the use variable is found in ATU1 and ATU3 items with a value of 4.45. This shows that most respondents felt that ordering a motorcycle taxi through the GO-JEK application is a good idea and they have a positive attitude towards the GO-JEK application. While the smallest mean value is in the ATU2 item which has a value of 4.35, which is included in the criteria of strongly agree. This indicates that most respondents consider ordering a motorcycle taxi through the GO-JEK application is the right idea. Thus, the average value of the attitude toward using a variable is 4.42 which means that respondents agree that using the GO-JEK application is the right decision.

The last is the behavioral intention to use a variable. This variable consists of three question indicators. The behavioral intention to use a variable that shows the highest mean value is found in BITU3 items with a value of 4.32. This shows that most respondents are willing to order a motorcycle taxi through the GO-JEK application. The smallest mean value is indicated by item PSE2 which has a value of 3.50, which is included in the agreed criteria. That is, most respondents tend to be heavy users of the GO-JEK application. Overall, the average value of the perceived self-efficacy variable is

4.02, which means that respondents agree that they intend to use the GO-JEK application.

As had explained in the methods, Partial Least Square analysis with software Smart PLS3 is used to analyze the data provided. In using the partial least square analysis, an outer model and inner model test must be performed. The outer model test is performed by measuring the reflective indicators which are assessed based on the correlation between the item score or component score estimated with the loading factor value obtained from the Smart PLS 3 software analysis. The minimum limit on the outer loading factor of a construct that is suitable for use is a minimum of 0.5. These limits become the reference value for the outer loading factor in this study. In the outer model test, validity is measured by looking at convergent validity, discriminant validity, and composite reliability.

Based on the outer loading value, all variables are greater than 0.5. Then it can be concluded that the indicators used in this study have met convergent validity. The value of discriminant validity is assessed by looking at the value of cross-loading. Variables are said to meet the criteria for discriminant validity if the value of the construct cross-loading on the variable itself is greater than the relationship with other variables. From the cross-loading value, it is obtained that all indicators have the biggest cross-loading value on the variables they compose compared to other variables. Thus it can be concluded that the indicators used in this study have a good discriminant.

The last is the composite reliability test. A variable is said to meet good composite reliability if it shows a value of more than 0.70. The

calculation results show that the composite reliability value of all variables is greater than 0.70. Thus it can be concluded that each variable in this study has met the criteria for composite reliability (reliable).

4. ANALYSIS

Statistical analysis showed that the correlation between ATU and BITU was 0.000 (p <0.05). This shows that there is a significant relationship between ATU and BITU. Besides, the correlation value between PC and PEOU is 0.000 (p <0.05), which indicates that the PC has a significant effect on PEOU. Table 1 also shows that PEOU has a significant effect on ATU. This is indicated by the correlation value of PEOU and ATU of 0.000 (p <0.05).

Table 1: Path Coefficient

Variable Correlation	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
ATU -> BITU	0.622	0.624	0.050	12.372	0.000*
PC -> PEOU	0.462	0.467	0.057	8.114	0.000*
PC -> PU	0.464	0.471	0.068	6.802	0.000*
PEOU -> ATU	0.363	0.358	0.073	4.963	0.000*
PEOU -> PU	0.267	0.265	0.084	3.179	0.001*
PSE -> PEOU	0.457	0.459	0.054	8.392	0.000*
PSE -> PU	0.063	0.062	0.067	0.937	0.175
PU -> ATU	0.492	0.497	0.069	7.087	0.000*

*sig p<0,05

Similar to the relationship between PEOU and PU, the correlation value of PEOU and PU is 0.001 ($p < 0.05$). This shows that there is a significant relationship between PEOU and PU. Similar results can be found in the PEOU variable on ATU. The correlation value of the PEOU and ATU variables is 0.000 ($p < 0.05$). Thus it can be said that PEOU affects ATU. As with the previous variables, the correlation value of the PSE against PU is 0.175 ($p > 0.05$). This means that there is no significant relationship between PSE and PU. The last is the correlation between PU and ATU. The correlation value of PU and ATU is 0.000 ($p < 0.05$) which means that PU has an effect on ATU.

5. DISCUSSION

The findings show that perceived usefulness, perceived ease of use, attitude toward using, and several external factors (perceived self-efficacy and perceived convenience) influence behavioral intention to use. Perceived convenience affects perceived ease of use and perceived usefulness. However, perceived self-efficacy only affects the perceived ease of use. Two factors perceived usefulness and perceived ease of use affect attitude toward using. Attitude toward using directly influences behavioral intention to use.

Perceived self-efficacy when using the GO-JEK application affects the perceived ease of use. Perceived self-efficacy has a significant impact on the perceived ease of use variable. Among the

several indicators of perceived self-efficacy, the indicator that forms the main constituent of this variable is the PSE2 construct, where respondents feel that they can operate the GO-JEK application without the help of others.

Respondents believe that the perception of self-efficacy will positively influence their perception of the ease of use of the GO-JEK application. The perception of self-efficacy is in line with the expectation of positive results from an information system. Respondents who believe they can operate GO-JEK applications tend to view the application as easy to use. In other words, the perception that arises is that respondents do not require much effort when using the GO-JEK application.

This is likely to cause the response obtained to be insignificant. However, from the findings, it can be understood that perceived usefulness, perceived ease of use, attitude toward using, and several external factors (perceived self-efficacy and perceived convenience) affect behavioral intention to use. From this explanation, it can be seen that an increase in the ease and usefulness of information technology products that will or are being developed can be obtained if the entrepreneur understands the relationship between the perception of self-efficacy, perceived comfort, perceived usefulness, perceived convenience, attitude, towards intention to use. Technology products are perceived to be better-functioning if they are more useful and easy to use.

6. CONCLUSION

The findings show that perceived usefulness, perceived ease of use, attitude toward using, and several external factors (perceived self-efficacy and perceived convenience) influence behavioral intention to use. Users with a positive outlook, after trying the GO-JEK application for the first time, will evaluate the use of the application. Following after, they will determine the attitude towards the application, whether they will show a positive or negative attitude. This decision will later shape the behavior of respondents to use the GO-JEK application again or not.

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