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## Model Analysis of Intention to Using Tije Mobile Applications For Transjakarta Users

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#### **ABSTRACT**

**Purpose – This** This study aims to determine and analyze the intention model using the Tije mobile application for Transjakarta users. In several previous studies, it was found that attitude mediates perceptions of convenience, perceived usefulness, and social influence on intention to use.

**Methodology/approaches** – The method used in this study is quantitative and descriptive causal research methods. The research hypothesis testing was carried out using the Partial Least Square (PLS) based Structural Equation Model (SEM) approach.

**Findings** – **It** The results showed that independently, the variables perceived convenience, perceived usefulness and social influence had a positive influence on the intention to use the Tije mobile application. The attitude variable also has a positive and significant influence on the intention to use. The three independent variables are mediated by attitudes which have a positive and significant influence on the intention to use.

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## INTRODUCTION

Jakarta is the capital of Indonesia, which has many problems, especially in terms of population density. The population in Jakarta is due to the concentration of jobs, so that people who live on the outskirts of the capital choose to work in the capital. Thus making Jakarta a busy city and increasing congestion. For this reason, it is hoped that transportation will be fast, safe and easily accessible by the people of Jakarta. Transjakarta or commonly called the busway is a bus transportation system in Jakarta which is managed by PT. Jakarta Transportation. Transjakarta is on a special route, with the aim of minimizing traffic jams while at the same time shifting the means of transportation for Jakarta residents and its surroundings from private cars to mass transportation (Imam & Astini, 2022; Iskamto et al., 2020; Nisa & Putri, 2022).

Amount Transjakarta passengers in 2021 are 123,810 people, the 2022 DKI Jakarta Provincial Statistics report. Transjakarta serves 806,159 customers as of Tuesday, October 18, 2022,PT Transportasi Jakarta is able to serve 1,001,564 customers per Tuesday, 13 June 2023. The Tije application was officially launched in early 2021, Tije is a modern digital platform that comes with a variety of

advanced and simple features that make it easier for Transjakarta users to plan trips with Transjakarta. There are 50,000 Tije application users in 2021, an increase of 100% in 2022 with 100,000 people already using the Tije application, and an increase that has jumped to 400% in 2023 with the number of downloaders at 500,000 people already using the Tije application. Based on the data above, Transjakarta users and Tije application users have increased every year from 2021 – 2023, Transjakarta bus users have experienced the highest increase in 2022 reaching 551% from 2020.2021, in contrast to the increase in Tije application users who experienced the highest increase in 2023 to 400% from 2022. Seeing the comparison in 2023 Tije application users are still relatively low of the total Transjakarta bus users, only 49.92% have used the Tije application of the total Transjakarta users

Venkatesh & Davis (2000) Technology Acceptance Model (TAM) is a concept that best describes user behavior towards new information technology systems. Theoretically and practically TAM is a model that is considered the most appropriate in explaining how users perceive a system. Río-Lanza et al (2020) and Dwivedi et al (2016) state that social influence has a positive influence on intention to use. Yanuardinda et al. (2014) stated perceived usefulness, perceived ease of use (the main construct of the technology acceptance model), perceived social influence, perceived self-efficacy showed that the four variables had a positive and significant effect on intention. Zhihong & Li (2016) usefulness, self-efficacy and response efficacy for consumers have a positive and significant effect on intention to use. As Chow (2018) said that consumers will have the intention to use new technology when the technology is recommended by others, and then have access to it. Furthermore, Weerakkody (2015) said that attitudes, perceived ease of use, self-efficacy have a positive and significant effect on intention to use.

With the above phenomena, the authors are interested in further research. This research was conducted pre-survey to 30 users of the Tije application were asked questions about "What are the models of intention to use the Tije application" and researchers would choose three variables that had the highest percentage results to be used as independent variables, while the pre-survey results of seven variables namely; perceived convenience, perceived usefulness, behavior, social influence, self-efficacy, response efficacy, and attitudes. Then it is known that the variable results with the highest percentage will be used as independent variables, namely; perceived convenience with a percentage of 90%, perceived usefulness with a percentage of 83.3%, attitudes with a percentage of 86.7%, and social influence with a percentage of 80%, then obtained information that the perception of ease, perceptions of usefulness and social influence get the most number chosen by respondents in the pre-survey as the three highest variables from other variables, so researchers based on these results will make the independent variable which will then be used as a mediator, namely attitude. Zayyad & Toycan (2017), Velicia et al (2021), Zhao et al (2017) in previous studies proved that attitude mediates usability and ease in intention to use The unified theory of acceptance and use of technology (UTAUT) states that social influence is a significant factor in determining the intention to use an information technology (Venkatesh et al, 2003) cited by Wu & Chen, (2016). Hernandez et al (2011) added that the basis for social influence can affect the acceptance of a new technology lies in a person's motivation to obey other people's beliefs in order to strengthen his personal relationship with group members. In addition, perceived social influence also has a significant influence on attitudes (Alfany et al, 2019). This research is expected to contribute to the scientific development of marketing management, especially the further implications in providing information to create an increased understanding of the intention to use the Tije application.

## LITERATURE REVIEWS

## **Perception of Convenience**

perceived ease of use is an important variable that must be considered in the application. In line with the TAM concept, perceived convenience is the user's belief that using technology is easy to do and does not require much effort to learn (Davis, 1989). According to D'astous and Seguin (Purnomo 2015), there are three types of product placement. According to Jogiyanto (2019) perceived ease of use is a measure where a person believes that using a technology can be clearly used and does not require much effort but must be easy to use and easy to operate.



Iriani et al (2020) indicators of perceived ease are divided into 6 indicators, including: (1) Easy to learn (ease to learn); (2) Capable of being mastered (controllable); (3) clear and understandable; (4) Flexible; (5) Easy to become skilled; (6) Easy to use (easy to use)

### **Perceived Usefulness**

Davis (1989) defines perceived usefulness as the degree to which a person believes that using a system will improve his performance. Velicia et al (2020) which states that perceived usefulness is one of the variables that contributes the most to someone in using the system. Perceived benefits or usefulness is a belief about the decision-making process (Dewi & Warmika, 2016). (Moslehpour et al. 2018) define perceived usefulness as all the perceived benefits and ongoing benefits of online shopping. Zhang et al (2017) explain several indicators in terms of usability, including: (1) Improving quality of life (increase life quality); (2) Providing many conveniences (make jobs easier); (3) Making life more effective (effectiveness) (4) Providing usefulness According to Iriani et al (2020) adding indicators of perceived usefulness to 6 indicators, as follows: (1) Helping to work quickly (work more quickly); (2) Providing performance (job performance); (3) Increase productivity (increase productivity); (4) Effectiveness; (5) Provide convenience (make jobs easier); (6) Useful.

## Social Influence

Vahdat et al (2020) that Social Influence is social influence that can influence other people that can change behavior. Meanwhile, according to Haryono & Brahmana (2015) social influence is expressing personal opinion about something that is believed by other people regarding the use of new methods. Based on several expert opinions, it can be concluded that social influence is a strategy for a group or a person to influence other people to use a product or service through the messages conveyed. There are 5 indicators of social influence as follows:

(1) obedience; (2) identification; (3) internalization; (4) assistance from the environment; (5) support

#### hypothesis development

Perceptions of characteristicstechnology varies from one individual to another. Their perception of technology stems from cognitive processes and beliefs about technology. The TAM model as proposed by Davis et al (1989) has dominated the information systems literature. ALraja (2015) states that TAM can be applied to test customer attitudes towards a technology and its influence and acceptance via the internet. This attitude is influenced by two main factors: the benefits of using and the ease of use of the technology. Benefits of use can be interpreted that customers are trying to get many benefits from using technology such as saving money, time, and a very large choice of products or services. Meanwhile, ease of use is a condition where customers can use technology easily, such as information search, ordering and using services for customers. Davis et al (1986) have developed a model that explains individual behavior in receiving information technology called TAM.

## a. Effect of perceived ease of attitude

Suki & Ramayah (2018) state that perceived ease of use is another key determinant of attitudes toward use in the TAM model. Attitudes toward use in the TAM model are defined as affective responses mediating perceived ease of use and intentions to use the desired application. Leiva (2017) shows that in the TAM Model perceived convenience influences the attitude and desire of users to accept a new technology. In line with this, Zhao (2018) also stated that perceived convenience positively influences attitudes.

Based on some of the previous research descriptions above, the hypothesis on the variables of perceived

ease and attitude is as follows:

H1: Perceived convenience has a positive and significant effect on attitudes

## b. The effect of perceived usefulness on attitudes

Riza & Hafizi (2019) argued that TAM is widely applied to understand individual attitudes towards the use of new technology or is used to predict the adoption and use of information technology where perceived usefulness is a measure of individual subjective judgment of the utility provided by new information technology products. This is in line with the results of research by Bailey (2017) and Scherer (2019) which state that perceived usefulness has a very significant influence on attitudes. Based on some of the previous research descriptions above, the hypothesis on the perceived usefulness and attitude variables is as follows:

H2: Perceived usefulness has a positive and significant effect on attitudes

#### c. The influence of social influence on attitudes

According to Alanza et al (2021) Influence or pressure from the social environment (social influence) can influence people to have positive or negative attitudes towards it as a form of self-protection from the environment. The results of his research show that social influence is proven to be important in shaping positive or negative attitudes and can complement different individual perceptions and values about acceptance of a technology. In line with these findings, the same results were found by Alfany (2019) that perceived social influence has a significant influence on attitudes. Based on some of the previous research descriptions above, the hypothesis on social influence and attitude variables is as follows:

H3: Social influence has a positive and significant effect on attitudes

## d. Effect of Perceived Convenience on intention to use

Zhao (2017) explained that perceived ease of use is important for users in influencing the intention to use for someone. His research shows that service providers should pay attention to service functions, simplify processes, ensure convenient and fast real-time services, reduce service risks, and increase trust to improve user experience. The results of the study also found that perceived convenience will influence older users to adopt information technology services more. Harja et al (2019) and Chen et al (2019) support the statement of Zhao et al (2017) that perceived convenience has a significant effect on intention to use. Based on some of the previous research descriptions above,

H4: Perceived convenience has a positive and significant effect on the intention to use

## e. Effect of perceived usefulness on intention to use

According to David (1989)Perceived usefulness is defined as the subjective probability of potential users using the application system to improve their job performance. Perceived usability is one of the main TAMs, consistently influencing intentions to use new information systems. In line with this, Sharma (2019) and Zhang (2017) suggest that perceived usefulness has a significant influence on intention to use. Based on some of the previous research descriptions above, the hypothesis on the variable perceived usefulness and intention to use is as follows:

H5: Perceived usefulness has a positive and significant effect on the intention to use

#### f. The influence of social influence on the intention to use

According to Fishbein & Ajzen (1975) cited by Bouteraa and Aidaros (2020) identified social influence as a significant variable in influencing certain behaviors to carry out the intention to use. A person's behavior can be influenced by his perception that certain social conditions encourage him to do certain behaviors (Venkatesh, 2003). Purwanto & Loisa (2020) in their research suggests that social influence has a positive effect on someone's intention to use new technology. Based on some of the previous research descriptions above, the hypothesis on social influence variables and intention to use is as follows:

H6: Social influence has a positive and significant effect on the intention to use

## g. Effect of attitude on intention to use



According to Davis et al (1989) attitude is a reflection of feelings of like or dislike about the performance of the target behavior that has been carried out. Riza (2019) and (Munaz 2017) found that the attitude variable had a significant effect on explaining the intention to use new technology. The relationship between attitude and intention to use has been tested by many studies, Bailey (2017), Zhao (2018), and Zayyad & Toycan (2018) who found that attitude has a significant effect on intention to use. Based on some of the previous research descriptions above, the hypothesis on the attitude and intention to use variables is as follows:

H7: Attitude has a positive and significant effect on the intention to use

h. Attitudes mediate perceptions of ease of use on intentions to use

Considering the relationship within the TAM, perceived convenience and perceived usefulness significantly predict intention to use through user attitudes toward new technologies. Scherer (2019) states that the role of attitude in TAM is comparable to the role of mediating these two variables.

H8: Attitude has a positive and significant effect in mediating perceived ease of use intention.

i. Attitudes mediate perceptions of usefulness on intentions to use

In line with this statement, the results of research by Bailey (2017), Munoz (2017) and Zhao (2017) show that attitude has a positive influence in mediating perceived usefulness on intention to use. Based on some of the previous research descriptions above, the hypothesis on the attitude variable in mediating perceived convenience and perceived usefulness towards intention to use is as follows:

H9: Attitude has a positive and significant effect in mediating perceived usefulness on intention to use

j. Attitude mediates social influence on intention to use

According to Westab (2015) cited by Alanza et al (2021) behavioral reasoning theory suggests social influence factors as global motives along with perceived attitudes as the main antecedents of intention to use. The impact of social influence occurs when an individual is influenced by others to change his attitude towards his acceptance (intention to use) of new technology. Alanza et al (2021) found that attitude has a positive influence in mediating social influence on the intention to use new technology. Based on some of the previous research descriptions above, the hypothesis on the attitude variable as a mediating variable between social influence and intention to use is as follows:

H10: Attitude has a positive and significant influence in mediating social influence on intention to use

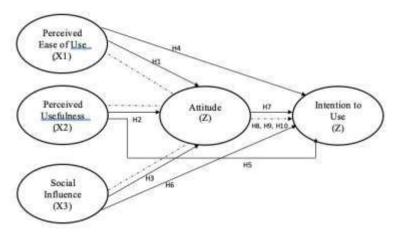


Figure 1. Framework

#### **METHODS**

This study uses a quantitative methodology because there is no relationship or direct contact between the researcher and the respondent. So, this research is objective not subjective. The research was conducted by distributing questionnaires, then the results obtained would be analyzed to obtain accurate information regarding the relationship between variables. Questionnaire questions were obtained through the process of decomposing each research variable into appropriate indicators, which were then reduced to questionnaire questions. Questionnaire respondent data will be processed by carrying out two testing methods, namely validity testing and reliability testing. The research location is DKI Jakarta, by distributing questionnaires online.

## 1. Population and Research Sample

The population that will be used in this study are transjakarta users who have used the Tije application. The sampling method in this study is non-probability, namely convenience sampling. According to Sugiyono (2015), convenience sampling is a method of determining a sample by selecting samples freely at the will of the researcher. This sampling method was chosen to facilitate research implementation on the grounds that the respondents used were people who had downloaded the Tije mobile application. The number of samples in this study were 384 people taken from the number of downloaders of the Mobile Tije application in DKI Jakarta of 500,000++ people. In this study, the Krejcie-Morgan table was used to determine the sample.

## **Data Collection and Analysis Methods**

Testing the research hypothesis was carried out using the Partial Least Square (PLS) based Structural Equation Model (SEM) approach. SEM research can help researchers assess the nature of measurements and test proposed theoretical relationships using a single technique. SEM can determine the contribution of each dimension in representing service quality and evaluate how well the observed set of variables measuring this dimension represents quality, that is how reliable the construct is. SEM examines the structure of this linkage, which is expressed in a series of structural equations. This concept is similar to estimating a series of multiple regression equations that model all relationships between constructs, both dependent and independent (Iskamto, 2017, 2020; Iskamto & Ghazali, 2021). The analytical method used, namely PLS, is a powerful analytical method because it can be used on any type of data scale (nominal, ordinal, interval, and ratio) without using many assumptions that must be met (Ghozali, 2011). PLS besides being able to be used as confirmation of theory can also be used to build relationships where there is no theoretical foundation or for testing propositions. PLS can also be used for structural modeling with reflective or formative indicators. The analysis technique in this study used the PLS technique which was carried out in 2 stages, namely: PLS besides being able to be used as confirmation of theory can also be used to build relationships where there is no theoretical foundation or for testing propositions. PLS can also be used for structural modeling with reflective or formative indicators. The analysis technique in this study used the PLS technique which was carried out in 2 stages, namely: PLS besides being able to be used as confirmation of theory can also be used to build relationships where there is no theoretical foundation or for testing propositions. PLS can also be used for structural modeling with reflective or formative indicators. The analysis technique in this study used the PLS technique which was carried out in 2 stages, namely:

Test the Measurement Model or Outer Model, Evaluation of the measurement model or outer model is carried out to assess the validity and reliability of the construct model for each indicator. Evaluation of the measurement model through confirmatory factor analysis is to use the MTMM (MultiTrait-Multi Method) approach by testing convergent and discriminant validity, and composite reliability and Cronbach alpha for blocking indicators (Ghozali & Latan, 2015). Structural Model Test or Inner Model, Structural model test or inner model is used to determine the influence or correlation between variables with the PLS method. Without losing its generality, it is assumed that the latent and indicator variables or manifest variables have zero means and unit variance equal to one, so that location parameters (constant parameters) can be removed from the model.



**RESULTS AND DISCUSSION** 

The respondents used in this study were 384 respondents who live in the Greater Jakarta area. The most gender is women as many as 219 respondents or 57.03%. At the age level, the most users are aged 17-26 years, with 169 respondents or 44%. The occupation of most respondents is as a student as many as 134 respondents or 34.9%. The monthly income of TIJE application users is 1 to 3 million.

## **Measurement Model Test (Outer Model)**

## **Convergent Validity**

Variable	Indicator	Outer	Condition	Information
<b>T</b>		Loading	0.7	X 7 1' 1
Intention to		0.911	0.7	Valid
Download	Find out	0.853	0.7	Valid
	Learn	0.860	0.7	Valid
	Tried using	0.840	0.7	Valid
	Utilise	0.827	0.7	Valid
Perception of		0.926	0.7	Valid
Convenience	It's easy to become an expert	0.895	0.7	Valid
	Capable of being mastered	0.828	0.7	Valid
	Easy to use	0.866	0.7	Valid
	Clear and easy to understand	0.865	0.7	Valid
	Flexible	0.905	0.7	Valid
Perceived Usefulness	Improve quality of life	0.908	0.7	Valid
	Provides many conveniences	0.878	0.7	Valid
	Effective	0.925	0.7	Valid
	Provides usability	0.872	0.7	Valid
	Help to work quickly	0.864	0.7	Valid
	Deliver performance	0.870	0.7	Valid
	Increase productivity	0.894	0.7	Valid
Social Influence	Obedience	0.914	0.7	Valid
	Identification	0.857	0.7	Valid
	Internalisation	0.860	0.7	Valid
	Help from the Environment	0.869	0.7	Valid
	Support	0.897	0.7	Valid
Attitude	what a good idea	0.908	0.7	Valid
	Suggestion	0.849	0.7	Valid
	Satisfaction	0.846	0.7	Valid
	Provide benefits	0.909	0.7	Valid
	Positive perception	0.898	0.7	Valid

The value of convergent validity is the value of the loading factor on the latent variable with its indicators. In the PLS model, the convergent validity value can be said to be valid if the loading factor value is > 0.7. Convergent validity explains whether the research variables studied are valid or not by looking at the value of the loading factor if the value is > 0.5 then it is declared valid but if < 0.7 it means it is not valid.

The results of data processing with SmartPLS show that all indicators have a loading factor value greater than 0.7 which indicates a high level of validity. Thus the analysis can be continued with the Average Variance Extracted (AVE) test and the discriminant validity test

**Table 3. Model AVE values** 

10010 00111000111 ( 2				
Variable	Average variance extracted(AVE)			
Perception of Convenience	0.777			
Perceived Usefulness	0.788			
Social Influence	0.774			
Intention to Use	0.738			
Attitude	0.779			

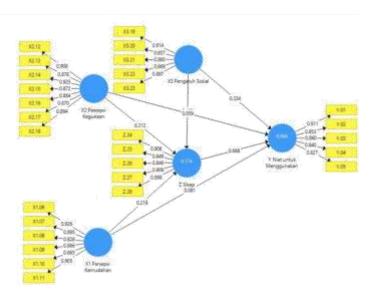


Figure 2. Loading Factor Value

## **Discriminant Validity**

1) Crossloading

X1	X2	X3	Y	Z
0.926	0.236	0.458	0.527	0.475
0.895	0.166	0.443	0.447	0.397
0.828	0.204	0.435	0.473	0.433
0.866	0.124	0.487	0.537	0.518
0.865	0.225	0.477	0.496	0.450
0.905	0.211	0.497	0.522	0.501
0.255	0.908	0.463	0.409	0.451
0.233	0.878	0.394	0.506	0.390
0.172	0.925	0.483	0.403	0.482
0.145	0.872	0.367	0.483	0.384
0.122	0.864	0.422	0.448	0.463
0.207	0.870	0.402	0.520	0.430
0.504	0.894	0.489	0.675	0.499
0.422	0.498	0.914	0.651	0.619
0.430	0.397	0.857	0.621	0.582
0.493	0.471	0.860	0.747	0.574
	0.926 0.895 0.828 0.866 0.865 0.905 0.255 0.233 0.172 0.145 0.122 0.207 0.504 0.422 0.430	0.926       0.236         0.895       0.166         0.828       0.204         0.866       0.124         0.865       0.225         0.905       0.211         0.255       0.908         0.233       0.878         0.172       0.925         0.145       0.872         0.122       0.864         0.207       0.870         0.504       0.894         0.430       0.397	0.926         0.236         0.458           0.895         0.166         0.443           0.828         0.204         0.435           0.866         0.124         0.487           0.865         0.225         0.477           0.905         0.211         0.497           0.255         0.908         0.463           0.233         0.878         0.394           0.172         0.925         0.483           0.145         0.872         0.367           0.122         0.864         0.422           0.207         0.870         0.402           0.504         0.894         0.489           0.422         0.498         0.914           0.430         0.397         0.857	0.926         0.236         0.458         0.527           0.895         0.166         0.443         0.447           0.828         0.204         0.435         0.473           0.866         0.124         0.487         0.537           0.865         0.225         0.477         0.496           0.905         0.211         0.497         0.522           0.255         0.908         0.463         0.409           0.233         0.878         0.394         0.506           0.172         0.925         0.483         0.403           0.145         0.872         0.367         0.483           0.122         0.864         0.422         0.448           0.207         0.870         0.402         0.520           0.504         0.894         0.489         0.675           0.422         0.498         0.914         0.651           0.430         0.397         0.857         0.621



X3.22 0.476 0.399 0.869 0.730 0.694 X3.23 0.546 0.478 0.897 0.911 0.653 Y. 01 0.500 0.419 0.685 0.853 0.831 Y.02 0.446 0.535 0.680 0.860 0.759 Y.03 0.425 0.420 0.656 0.840 0.777 Y.04 0.530 0.408 0.675 0.827 0.763 Y.05 0.479 0.440 0.662 0.821 0.762 Z. 24 0.426 0.405 0.656 0.737 0.908 Z. 25 0.473 0.477 0.592 0.818 0.849 Z. 26 0.472 0.419 0.617 0.807 0.846 0.475 0.471 0.909 Z. 27 0.630 0.815 Z. 28 0.926 0.236 0.648 0.898 0.527

## 2) Fornell Locker

Variable	X1	X2	X3	Y	Z
Perception of Ease (X1)	0.881				
Perceived Usefulness (X2)	0.221	0.888			
Social Influence (X3)	0.530	0.490	0.880		
Intention to Download (Y)	0.570	0.527	0.782	0.859	
Attitude (Z)	0.527	0.502	0.713	0.907	0.883

The results of discriminant validity testing can be known through the theory of Cross Loadings and the Fornell-Larcker Criterion. In this study, the model is said to meet the requirements of discriminant validity based on the cross loading theory, namely the indicators on the parent variable must have a greater value than the other variables. The model is said to meet the requirements of discriminant validity based on the Fornell-Larcker Criterion theory, namely the square root of the average variance extracted by a construct must be greater than the correlation between that construct and other constructs.

## reliability

The reliability test was carried out to prove the accuracy, consistency and precision of the instrument in measuring constructs. The construct is declared reliable if the composite reliability value is above 0.70, Cronbach alpha is above 0.60 (Ghazali, 2014). Abdillah (2019) in his research on composite reliability also stated that a value of 0.6 is still acceptable.

Table 4. Cronbach alpha values

Variable	Cronbach Alpha	Composite reliability	Information
Perception of Ease (X1)	0.942	0.954	Reliable
Perceived Usefulness (X2)	0.955	0.963	Reliable
Social Influence (X3)	0.927	0.945	Reliable
Intention to Download (Y)	0.911	0.934	Reliable
Attitude (Z)	0.929	0.946	Reliable

In this study, constructs or variables were declared reliable because they had Cronbach alpha values > 0.60. In this study, all variables showed a value of > 7.0 which can be concluded that the research variables met reliable standards or it can be said that the variables in this study had a good level of consistency.

# Structural Model Test (Inner Model) R-Square

The coefficient of determination (R-Square) shows how much the independent variable explains the dependent variable. The R-Square value is zero to one. If the R-Square gets closer to one, then the independent variables provide all the information needed to predict the variation of the dependent variable. The R-Square value is 0.866 which can be interpreted that the construct variable Intention to Use which can be explained by the variable perceived ease, perceived usefulness, social influence and attitude is 86.6% while 13.4% is explained by other variables not examined.

Table 6. R-Square Value

Variable	R-Square
Intention to Download (Y)	0.866

## F-Square

f-square (effect size) is a measure used to assess the relative impact of an influencing variable (exogenous) on the affected variable (enogeneous). The f-square value of the model is used to determine the size of the effect size of endogenous latent variables on exogenous latent variables. If the f-square value is equal to 0.35, it can be interpreted that the latent variable predictor has a strong influence, if the value is equal to 0.15 then it has a medium effect and if the value is equal to 0.02 then it has a weak influence (Ghazali, 2016).

Table 7. f-Square values

Variable	<b>X1</b>	<b>X2</b>	Ket	Y	Ket	Z	Information
X1		0.051	Weak	0.033	Weak	0.081	Weak
<b>X2</b>				0.018	Weak	0.080	Weak
<b>X3</b>				0.176	Intermediate	0.327	Strong

## **Q-Square**

Q2 predictive relevance is used to present a synthesis of validation and fitting functions with predictions of manifest variables and estimates of construct parameters. The value of Q2 > 0 indicates that the model has predictive relevance, while Q2 < 0 indicates that the model lacks predictive relevance (Ghazali and Laten 2015). The following is the value of predictive relevance:

Q2 value = 
$$1 - (1 - R2) \times (1 - R2)$$
  
=  $1 - (1 - 0.866) \times (1 - 0.574)$   
=  $1 - (0.134) \times (0.426)$   
=  $1 - 0.057$   
Q2 value =  $0.943$ 

Based on these data valuesQ2 has a value > 0, so this research model has strong predictive relevance.

## 1. Hypothesis test

Based on the path coefficient test, if the path coefficient value is <0, then the direction of the relationship is negative, whereas if it's the other way around, the direction of the relationship is positive. Meanwhile, the t statistic tests the significance level of the influence of the relationship. If the t statistical value with a significance level of 5% has a t table value > 1.96, then the direction of the relationship is significant.



X2.12

X2.13

51.494

X2.14

29.445

X3.22

30.233

X3 Pengeruh Sosial

X2.15

28.157

X2.16

28.157

X2.17

X2.18

X3.29 essepsi

Keguisaan

5.360

Z.24

Z.25

33.927

Z.26

21.725

24.726

Z.271

X2.18

X1.06

X1.06

X1.07

X1.08

X1.09

X1.09

X1.10

X1.09

X1.10

X1.09

X1.10

X1.00

Figure 3. Results of the Research Model Using Bootstrapping

Based on the results of the Bootstrapping Test by analyzing the p-value and t statistics, the following results are obtained.

hypothesis  $\overline{T}$ Path Results Coefficient **Statistics** Perception of convenience→ Attitude 0.219 4,425 Accepted Perceived Usefulness-Attitude 0.212 5,360 Accepted Social Influence →Attitude 0.493 Accepted 11,461 Accepted Perception of Convenience→intention to use 0.081 3,785 Perceived Usefulness→intention to use Accepted 0.059 2,271 *Social Influence*→intention to use 0.234 7,206 Accepted Attitude→intention to use 0.668 16,930 Accepted Perception of Convenience→Attitude→intention to 0.146 4,167 Accepted Perceived Usefulness→Attitude→Intention to Use 0.142 4,656 Accepted Social Influence→Attitude→intention to use 0.329 9,930 Accepted

Table 8. Results of Hypothesis Analysis

From table 8 can be seen that the following hypothesis is accepted:

- Perceived convenience has a positive and significant effect on attitudes
- Perceived usefulness has a positive and significant effect on attitudes

- Social Influence has a positive and significant effect on attitudes
- Perceived convenience has a positive and significant effect on Intention to Use
- Perceived usefulness has a positive and significant effect on the intention to use.
- Social influence has a positive and significant effect on Intention to Use.
- Attitude has a positive and significant effect on Intention to Use.
- Attitude positively and significantly mediates the effect of perceived ease of use on Intention to Use.
- Attitude positively and significantly mediates the effect of perceived usefulness on Intention to Use
- Attitude positively and significantly mediates the effect of social influence on Intention to Use.

### 2. DISCUSSION

## **Analysis of the Effect of Perceived Convenience on Attitudes**

The first hypothesis in this study tested whether perceived convenience positively and significantly influences attitudes. The model shows that the beta coefficient value of perceived ease of attitude is 0.219 and the t statistic is 4.425, so it can be stated that the first hypothesis is accepted or proven. It is proven that perceived ease of use has a positive and significant effect on perceived attitudes. This means that the clearer and easier the Tije application is to use, the more positive the user's attitude towards the application will be. The results of this study are in line with research conducted by Suki & Ramayah (2010) stating that perceived ease of use is another major determinant of attitudes toward use in the TAM model. Attitude toward use in the TAM model is defined as an affective response mediating perceptions of ease of use and Intention to Use the desired application. Leiva et al (2017) show that in the TAM Model perceived convenience influences user attitudes and desires to accept a new technology. In line with this, Zhao et al (2018) also stated that perceived convenience positively influences attitudes.

#### **Analysis of the Effect of Perceived Usefulness on Attitudes**

The second hypothesis in this study tested whether perceived usefulness has a positive and significant effect on attitudes. The model shows that the beta coefficient value of perceived usefulness on attitude is 0.212 and the t statistic is 5.360, so it can be stated that the fourth hypothesis is accepted or proven. It is proven that perceived usefulness has a positive and significant effect on attitudes. This means that the more effective and useful the Tije application is, the more positive the user's attitude towards the application will be. The results of this study are in line with research conducted by Riza & Hafizi (2019) who argued that TAM is widely applied to understand individual attitudes towards the use of new technology or is used to predict the adoption and use of information technology where perceived usefulness is one measure of an individual's subjective assessment of utility. provided by new information technology products. This is in line with the results of research by Bailey et al (2017) and Scherer (2019) which state that perceived usefulness has a very significant effect on attitudes.

## Analysis of Social Influence (Social Influence) on Attitudes

The third hypothesis in this study examines whether social influence has a positive and significant effect on attitudes. The model shows that the beta coefficient value of social influence on attitude is 0.493 and the t statistic is 11.461, so it can be stated that the sixth hypothesis is accepted or proven. It is proven that social influence has a positive and significant effect on attitudes. This means that the more people who recommend the Tije application, the more positive the user's attitude towards the application will be. The results of this study are in line with Alanza et al (2021) Influence or pressure from the social environment (social influence) can influence people to have positive or negative attitudes towards them as a form of self-protection from the environment. The results of his research show that social influence is proven to be important in shaping positive or negative attitudes and can complement different individual perceptions and values about acceptance of a technology. In line with these findings, the same results were found by Alfany et al (2019) that perceived social influence has a significant influence on attitudes.



## Analysis of the Effect of Perceived Ease of Use on Intention to Use

The fourth hypothesis in this study tests whether perceived ease of use has a positive and significant effect on Intention to Use. The model shows that the beta coefficient value of perceived ease of use intention is 0.081 and the t statistic is 3.785, so it can be stated that the third hypothesis is accepted or proven. It is proven that perceived ease of use has a positive and significant effect on Intention to Use. This means that the clearer and easier the Tije application is, the higher the intention to use the application. The results of this study are in line with research conducted by Zhao et al (2017) explaining that perceived convenience is important for users in influencing someone's intention to use. Likewise, research conducted by Harja et al (2019) and Chen et al (2019) supports the statement of Zhao et al (2017) that perceived convenience has a significant effect on Intention to Use. Service providers, in this case TIJE, must pay attention to service functions, simplify processes, ensure convenient and fast real-time services, reduce service risk, and increase trust to improve user experience. The results of the study also found that perceived convenience will influence older users to adopt information technology services more.

## Analysis of the Effect of Perceived Usefulness on Intention to Use

The fifth hypothesis in this study tests whether perceived usefulness has a positive and significant effect on intention to use. The model shows that the beta coefficient value of perceived usefulness on Intention to Use is 0.059 and the t statistic is 2.271, so it can be stated that the fifth hypothesis is accepted or proven. It is proven that perceived usefulness has a positive and significant effect on Intention to Use. This means that the more effective and useful the Tije application is, the higher the intention to use the application. The results of this study are in line with research conducted by David (1989) on perceived usefulness, defined as the subjective probability that a prospective user using an application system will improve his job performance. Perceived usability is one of TAM's main antecedents, consistently influencing Intention to Use a new information system. In line with this, Sharma (2019) and Zhang et al (2017) suggest that perceived usefulness has a significant influence on Intention to Use.

## **Social Influence Analysis on Intention to Use**

The sixth hypothesis in this study tests whether social influence has a positive and significant effect on Intention to Use. The model shows that the beta coefficient value of social influence on Intention to Use is 0.234 and the t statistic is 7.206, so it can be stated that the seventh hypothesis is accepted or proven. It is proven that social influence has a positive and significant effect on Intention to Use. This means that the more people who recommend and give good reviews for the Tije application, the higher the intention to use the application. The results of this study are in line with research conducted by Fishbein & Ajzen (1975) cited by Bouteraa and Aidaros (2020) identifying social influence as a significant variable in influencing certain behaviors to perform Intention to Use. A person's behavior can be influenced by his perception that certain social conditions encourage him to perform certain behaviors (Venkatesh et al, 2003). Purwanto & Loisa (2020) in their research suggests that social influence has a positive effect on the Intention to Use someone using new technology.

## **Analysis of the Effect of Attitude on Intention to Use**

The seventh hypothesis in this study tests whether the effect of attitude has a positive and significant effect on Intention to Use. The model shows that the value of the beta coefficient influences attitudes towards Intention to Use is 0.668 and the t statistic is 16.930, so it can be stated that the eighth hypothesis is accepted or proven. It is proven that attitude has a positive and significant effect on Intention to Use. This means that the more positive the user's attitude towards the Tije application, the higher the intention to use the application. The results of this study are consistent with the statement of

Davis et al (1989) that attitude is a reflection of feelings of like or dislike about the performance of the target behavior that has been carried out. Riza et al (2019) and Munaz (2017) found that the attitude variable had a significant effect on explaining the intention to use new technology. The relationship between attitude and intention to use has been tested by many studies, Bailey et al (2017), Zhao et al (2018), Suki et al (2010), and Zayyad & Toycan (2018) who found that attitude has a significant effect on intention to use. Use.

## Attitude Analysis Mediates Perceived Ease of Use Against Intention to Use

The eighth hypothesis in this study tests whether attitude positively and significantly mediates perceived ease of use intention. The model shows that the value of the beta coefficient attitudinal mediates perceptions of ease and perceived usefulness of the Intention to Use of 0.031 and the t statistic of 3.133, so that it can be stated that the eighth hypothesis is accepted or proven. It is proven that attitude is able to mediate the positive and significant influence of perceived ease and perceived usefulness on Intention to Use. This means that consumers find it easy and clear to operate the Tije application and have a positive attitude towards the application, they will be more interested in using the application. The results of this study are consistent with the statement of Taylor & Todd (1995) quoted by Scherer et al (2019) stating that the role of attitude in TAM is comparable to the role of mediating these two variables.

## Attitude Analysis Mediates Perceived Usefulness Against Intention to Use

The ninth hypothesis in this study tested whether attitude positively and significantly mediated perceived usefulness on Intention to Use. The model shows that the value of the beta coefficient attitudinal mediates the perceived usefulness of Intention to Use of 0.142 and the t statistic of 4.656, so that it can be stated that the ninth hypothesis is accepted or proven. It is proven that attitude is able to mediate the positive and significant influence of perceived usefulness on Intention to Use. This means that consumers feel the Tije application is effective and useful and have a positive attitude towards the application and will be increasingly interested in using the application. The results of this study are in line with the results of research by Bailey et al (2017), Munoz et al (2017) and Zhao et al (2017) showing that attitudes have a positive influence in mediating perceived ease and perceived usefulness on Intention to Use.

## Attitude Analysis Mediates social influence on Intention to Use

The tenth hypothesis in this study tests whether attitudes positively and significantly mediate social influence on Intention to Use. The model shows that the beta coefficient value of attitude mediates social influence on Intention to Use of 0.329 and the t statistic is 9.930, so it can be stated that the tenth hypothesis is accepted or proven. It is proven that attitude is able to mediate positive and significant social influence on Intention to Use. This means that consumers are given good recommendations and reviews regarding the Tije application and have a positive attitude towards the application and will be more interested in using the application. Based on these results it appears that all models in this study are full mediation, which means that all independent variables have a positive effect on the dependent variable and are strengthened by the presence of a mediating variable on the dependent variable.

## **CONCLUSION**

The conclusions that can be drawn from this research are: Perceived ease of use has a positive and significant effect on attitude, meaning that the clearer and easier the Tije application is to use, the more positive the user's attitude towards the application. Perceived usefulness has a positive and significant effect on attitudes, meaning that the more effective and useful the Tije application is, the more positive the user's attitude towards the application. Social Influence has a positive and significant effect on attitudes, meaning that the more people who recommend the Tije application, the more positive the user's attitude towards the application. Perceived ease of use has a positive and significant effect on Intention to Use, meaning that the clearer and easier the Tije application is, the higher the intention to use the application. Perceived usefulness has a positive and significant effect on the intention to use. This means that the more effective and useful the Tije application is, the higher the intention to use the application. Social influence has a positive and significant effect on Intention to Use. This means that the more people who recommend and give good reviews for the Tije application, the higher the intention to use the



application. Attitude has a positive and significant effect on Intention to Use. This means that the more positive the user's attitude towards the Tije application, the higher the intention to use the application. Attitude positively and significantly mediates the effect of perceived ease of use on Intention to Use.

This means that consumers find it easy and clear to operate the Tije application and have a positive attitude towards the application, they will be more interested in using the application. Attitude positively and significantly mediates the effect of perceived usefulness on Intention to Use. This means that consumers feel the Tije application is effective and useful and have a positive attitude towards the application and will be increasingly interested in using the application. Attitude positively and significantly mediates the effect of social influence on Intention to Use. This means that consumers are given good recommendations and reviews regarding the Tije application and have a positive attitude towards the application and will be more interested in using the application.

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