

# The Effect of United Theory of Admission Theory and Use of Technology (UTAUT) to Understand the Administration Level And Use of Go-Jek Applications in Padang City

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**Abstract:** The emergence of online transportation in the city of Padang is caused by poor services provided by public transport and frequent congestion, because online transportation is more interesting to use, because it helps people to reach their destination quickly. Another reason that makes people interested in using it is the online transportation fleet more than public transportation. This study aims to determine the effect of acceptance and use of Go-jek applications in Padang city using the UTAUT model. The factors in the UTAUT model affect consumers in using transportation technology online in Padang City. The results showed that the factors that influence the Behavior of Intentions in the application of online transportation technology in the City of Padang were Hope Performance and Business Expectations. Meanwhile, the factors that influence behavior use online transportation services Facilitation Conditions, and Behavioral Intentions. The value of influence on Behavior Behavior is 62, 8%, and the effect on Use of Behavior is 80%.

**Keywords:** Performance Expectation, Effort Expectation, Social Influence, Facilitating Conditions, Behavior Intention and Use Behavior

## I. INTRODUCTION

City economic development requires adequate transportation services. Without transportation as a means to support the economic development of a region it will not be achieved as expected. Transportation from the social side is a process of cultural affiliation where when someone uses transportation and moves from one place to another, people will see differences in culture and pluralism, such as in Indonesia. For example, there are problems regarding congestion, noise pollution, air, and various accidents because public transportation facilities are not good.

Developing countries, such as Indonesia, the conventional transportation sector is slowly becoming less attractive to the younger generation. With online transportation they can save more time than driving a conventional motorcycle taxi, or other

public transportation. Online transportation is more expensive than public transportation.

conventional, because you have to have an application to be able to access online transportation services to use this transportation for daily activities, although the costs incurred are more expensive but the benefits can be felt in using motorcycle taxi online

The background of the people of Padang City who are interested in using the first Ojek Online to save time and energy, both online transportation has a non-cash payment system that uses credit and e-cash cards. Credit cards can also get cashback promos plus value from online transportation, four customers who often use online transportation such as Go-Jek, then customers will also get discounts from Go-Jek company, transportation Fifth Go-Jek has a customer loyalty program, six fleets more, compared to conventional public transportation, there are more online transportation fleets because many want to become partners with Go-Jek companies from all walks of life, even students who already have job

Many models of acceptance of information technology were developed by researchers. One model for knowing the factors of technology acceptance is the Unified Acceptance and Use of Technology Theory (UTAUT). UTAUT shows that behavioral intention is influenced by public perceptions of performance expectations, effort expectations and social influences. Next the behavior to use technology is influenced by interesting perceptions in behavioral intention and facilitating conditions. Venkatesh, et al., (2003)

Go-Jek strives to provide satisfying services to customers such as being able to be accessed anytime and anywhere, a more compact digital format, and the availability of varied features. In addition, the ease of accessing the Go-Jek application, support from the social environment, is expected to make consumers feel comfortable using it, so that it will increase customer behavior intention to use Go-Jek. And a person's attitude is a form of desire and purpose to be achieved by that person.

Based on the above phenomenon, we can conclude several research problems as follows:

1. Does performance expectations affect Go-Jek customers' behavioral intentions in Padang City?
2. Does the hope of effort influence the behavior intention of Go-Jek Kota customers in Padang City?
3. Do social influences influence Go-Jek customers' behavioral intentions in Padang City?
4. Does behavioral intent affect Go-Jek's customer usage behavior in Padang City?
5. Does facilitating conditions affect Go-Jek customer usage behavior in Padang City?

## II. LITERATUR

### A. Ojek online

In terms of terminology, based on the Big Language Dictionary (1989), motorcycle taxis are bicycles or motorbikes run by the presence of tenants who hitch a ride (Language Center, 2016). OJek is defined as informal transportation using motorbikes, used to transport humans and goods based on agreements between users and drivers

According to Adisasmita (2014) the quality of transportation services must meet several aspects, as follows:

- a) Fast
- b) Safe
- c) Adequacy
- d) Frequency
- e) Regularity
- f) Responsibilities
- g) Acceptable fees or affordable prices
- h) Comfort or comfort

### B. Smartphone

Smartphone is a touch screen phone and tablet computer based on Linux. Android is also interpreted as software that can be used on mobile devices that are the scope of the operating system, middleware, and main applications released by Google (EMS Team, 2015).

### D. United Theory Of Acceptance And use Of Technology (UTAUT)

The presence of information technology has changed many organizations. information technology to improve performance. In order for information technology to improve performance, technology must be accepted and used by users. Several theories based on psychology and sociology have been introduced and used to explain this phenomenon. Venkatesh, et al., (2003) reviewed theories about the acceptance of technology by system users. A total of eight theories are reviewed as follows:

1. *Theory of reasoned action (TRA)*
2. *model of technology acceptance (TAM)*
3. *Motivational model (MM)*
4. *Theory of planned behavior (TPB)*

5. *A model combining technology acceptance models and planned behavior theory (TAM + TPB)*
6. *Model of PC utilization (MPCU)*
7. *Diffusion of innovation theories (IDT)*
8. *Theory of social cognitive (SCT)*

Venkatesh, et al., (2003) then used preexisting theories to develop new integrated integrated models. This combined model (integrated model) which is then called by the name of the combined theory of technology acceptance and use (Unified Theory of Acceptance and Use of Technology) or called the abbreviation UTAUT. The Theory of Acceptance and Use of Technology (UTAUT) is a theory used to assess the level of acceptance and use of information technology by users Venkatesh, et al., (2012) concluded that there are four main constructs that influence behavioral and behavioral intentions using information technology. The four constructions are:

- a. Performance expectations  
Performance expectations are interpreted as how high a person believes that using technology will help him improve his performance
- b. Effort expectations  
Effort Expectation is defined as the level of ease a person uses the system.
- c. Social influence  
Social influence is defined as the extent to which a person can influence others in using a new system
- d. Facilitation conditions  
Facilitating this condition a person's level of trust that existing facilities can support the use of technology Venkatesh, et al., (2003)
- e. Behavioral intention  
Behavior Intention is someone's intention to use technology continuously or continuously because they have access to the system
- f. Use Behavior  
The popular definition of attitudes or behaviors quoted in is feeling happy about a certain thing

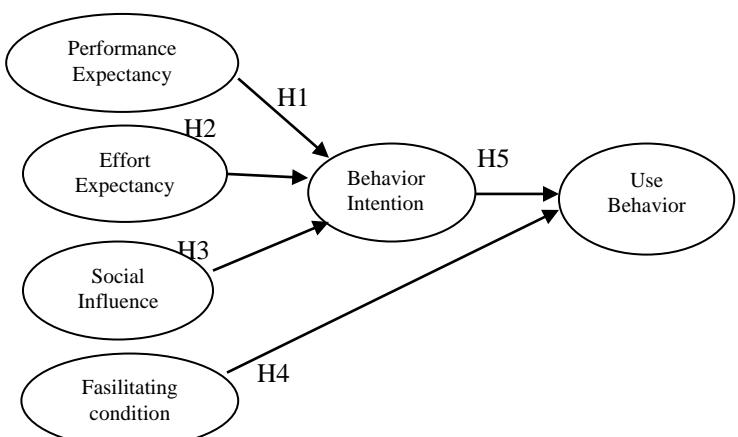


Figure 1: A theoretical framework

Hypothesis 1: Performance expectancy has a positive effect on behavioral intention.

Hypothesis 2: Effort expectancy has a positive effect on behavioral intention.

Hypothesis 3: Social influence has a positive effect on behavioral intention.

Hypothesis 4: A person's desire has a positive effect on use behavior

Hypothesis 5: Facilitating conditions have a positive effect on use behavior

### III. RESEARCH METHODOLOGY

#### A. Population and Samples

The population in this study were all Go-Jek customers in Padang City. The sample from this study is Go-Jek customers in Padang City. The method used in this study is non probability sampling where all populations do not have the same opportunity to become respondents and sampling is based on the consideration of researchers (Kuntjojo, 2009). Determination of the number of samples in this study using the requirements stated by Hair, et al (2010) that the number of samples as respondents must be adjusted to the number of indicators used in the questionnaire, assuming the  $n \times 5$  observed variable ( indicator) up to  $n \times 10$  observed variable (indicator). The number of indicators used to measure 6 variables in this study is 19 statement items multiplied by 10 equal to 190 respondents

#### B. Variable Operational Definition

In this study, the operational limits used are as follows:

##### 1. Variables:

- a) Performance Expectancy (X1)
- b) Effort Expectancy (X2)
- c) Social Influence (X3)
- d) Facilitating Conditions (X4)

##### 2. Intervening Variables:

- e). Behavioral Intention (Z)

##### 3. Dependent Variables

- f). Use Behavior (Y)

#### C. Data Analysis Method

The data analysis analysis methode is path analysis using Smart PLS 2.0 software (Partial Least Square). The Partial Least Square (PLS) evaluation model is based on predictive measurements that have non-parametric properties Ghazali, (2013)

1. The measurement model or outer model with reflexive indicators is evaluated with reliability indicators, internal consistency reliability, convergent validity and discriminant validity.
2. The structural model or inner model is evaluated by looking at the percentage variance described, namely by looking at the value of R<sup>2</sup>.
3. The stability of these estimates is evaluated using the t-statistical test obtained through the bootstrapping procedure.

### IV. ANALYSIS

#### A. Outer Model

##### 1. Indicator Reliability

Table 1.

Variables	No .	An Indicator	Loading Outer Value (> 0.6)	Information
performance Expectancy	1	PE1	0,961	valid
	2	PE2	0,841	valid
	3	PE3	0,924	valid
	4	PE4	0,945	valid
effort Expectancy	5	EE1	0,936	valid
	6	EE2	0,825	valid
	7	EE3	0,790	valid
	8	EE4	0,876	valid
Social Influence	9	SI1	0,878	valid
	10	SI2	0,831	valid
	11	Si3	0,864	valid
	12	FC1	0,864	valid
facilitating Condition	13	FC2	0,863	valid
	14	FC3	0,797	valid
	15	FC4	0,846	valid
	16	BI1	0,783	valid
behavioral Intention	17	BI2	0,903	valid
	18	BI3	0,872	valid
Use Behavior	19	UB1	1,000	valid

Based on the table above, shows that all the indicators or a valid statement items. According to Hussein (2015), when there is a value below 0.6 outer loading on a an indicator, the indicator can be omitted because it does not represent an existing construct. So that in this study there was no indicator to be removed or deleted. Here is a diagram drawing lines all indicators

#### 2. Internal Consistency

Reliability In the second stage in reliability, the reliability of composite measurement. Internal consistency reliability is reliable if the reliability of composite values greater than 0.60 Chin, W., Marcoulides, G., & Saunders, (2012) . In Table 2 below are the results of the output from the PLS:

Table 2  
*Internal Consistency Reliability*

variables	Composite Reability (> 0.7)	Information
performance Expectancy	0,956	reliable
effort Expectancy	0,918	reliable
Social Influence	0,893	reliable
facilitating Condition	0,908	reliable
behavioral Intention	0,890	reliable

<i>Use Behavior</i>	1,000	reliable
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Based on the above table it can be seen that each of the variables used in this study had a composite value of a good reliability ie, greater than 0.7. Therefore, each of the variables in this study can be said to have qualified that have high levels of reliability in accordance with the terms specified.

### 3. convergent Validity

Table. 3  
*Convergen Validity*

Variables	AVE value (> 0.5)	Information
<i>performance Expectancy</i>	0,844	valid
<i>effort Expectancy</i>	0,737	valid
<i>Social Influence</i>	0,736	valid
<i>facilitating Condition</i>	0,711	valid
<i>behavioral Intention</i>	0,730	valid
<i>Use Behavior</i>	1,000	valid

In examining the value of convergent validity, can be seen from the AVE (Average Variance Extracted) each latent variable. If every variable produces a value greater than 0.50, we conclude criteria have met the convergent validityChin, (2010). Table 3 shows that all variables

### 4. Discriminant Validity

Discriminant validity is further analysis on the validity test in the analysis of PLS. Discriminant validity that is AVE must be greater than the correlation value between variables latent, Chin, (2010).

Table 4  
*Discriminant Validity*

Variables	BI	EE	FC	PE	SI	UB
<b>BI</b>	<b>0,854</b>					
<b>EE</b>	0,403	<b>0,858</b>				
<b>FC</b>	0,643	0,439	<b>0,843</b>			
<b>PE</b>	0,784	0,419	0,857	<b>0,919</b>		
<b>SI</b>	0,358	0,249	0,311	0,349	<b>0,858</b>	
<b>UB</b>	0,745	0,390	0,858	0,953	0,278	<b>1,000</b>

From Table 4 above, we can see the results of the square root of the AVE value in latent variables. Thus, the above variables qualify.B. Inner Model

#### 1. R-Square

In assessing models with PLS begins to see R-Square for each dependent latent variables. Changes in the value of R-Square can be used to assess the effect of certain independent latent variables on the dependent latent variable whether it has substantive impact. The higher the R-square value, the more significant the influence exerted.

Table 5  
*R-Square*

Variables	The R2
<i>behavioral Intention</i>	0,628
<i>effort Expectancy</i>	-
<i>facilitating Conditions</i>	-
<i>performance Expectancy</i>	-
<i>Social Influence</i>	-
<i>Use Behavior</i>	0,800

It can be seen from Table 5 the value of R-Square for the latent variable performance expectancy, effort expectancy and social influence variables that influence the behavioral intention in the structural model has a value R2 62,8% of the behavioral variables intention while the remaining 37,2% is influenced by other factors.

Variable facilitating conditions and behavioral intention that affect the variable use behavior in the structural models have R2 value of 0,800 then the variable facilitating condition and behavioral intention firmly explained 80% of variance variable use behavior, while the remaining 20% influenced by other factors as described in this study can explain variable use behavioral intention and behavior are factors that are not included in our model

Furthermore, using Q-square predictive relevance for the structural model, measure how well the observed values generated by the model and estimation parameters. Q-square value must be > 0 which indicates the model has good predictive relevanceGhozali, (2011). Q2 value, is as follows:

$$\begin{aligned}
 Q2 &= 1 - (1-R12)(1-R22) \dots (1-Rp2) \\
 Q2 &= 1 - (1-0,628) \times (1-0,800) \\
 &= 1 - (0,372 \times 0,2) \\
 &= 1 - 0,074 \\
 &= \mathbf{0,93}
 \end{aligned}$$

Q2 obtained amounted to 0,828 that is greater than 0 (zero) and show that the model has predictive relevance

#### 2. Structural Model Test

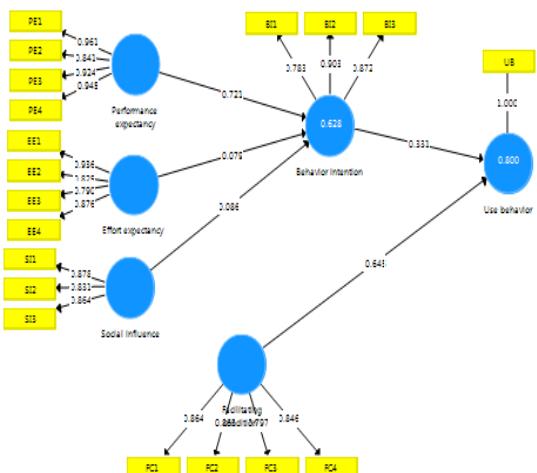


Figure 2. Structural Model Estimation Results

Results inner value of weight Figure 2 above shows that the power line (significantly) affect the behavioral intention expectancy performance for 0,721 and expectancy affect behavioral intention effort at 0,079. While the use behavior affects behavioral intention of 0,331 and facilitating conditions affecting the use behavior of 0,645.

### C. Hypothesis

Table 6  
Path Coefficient (Mean, STDEV, T-Values)

Original Sample (O)	Samples Mean (M)	Standard Deviation (STDEV)	Standard Error (Sterr)	T Statistic (O / Sterr)
<b>BI -&gt; UB</b>	0,331	0,331	0,048	0,000
<b>EE -&gt; BI</b>	0,079	0,084	0,039	0,042
<b>FC-&gt; UB</b>	0,645	0,646	0,042	0,000
<b>PE -&gt; BI</b>	0,721	0,719	0,048	0,000
<b>SI-&gt; BI</b>	0,086	0,086	0,059	0,143

The influence between variables is said to be significant if the t-statistics value is worth more than  $t = 1, 96$ . So it is known that based on table 6 below, a significant difference between the performance of expectancy and effort expectancy on behavioral intention. Then, a significant difference between behavioral intention and facilitating conditions to use behavior. While social influence no significant effect on behavioral intention

### V. CONCLUSIONS

1. The variable performance expectation is one of the factors that influence the significant and positive influence on Go-Jek customer behavior intentions in Padang. Go-Jek strives to provide satisfying services for Go-Jek customers in Padang, by providing satisfying services to customers, helping customers improve performance. Go-Jek can be easily

accessed via a smartphone with an internet connection, and can be accessed online anywhere and anytime.

2. Variable effort expectancy is one of the factors that influence the significant and positive influence on the emergence of Go-Jek customer behavior intentions. Go-Jek makes it easy for customers to access online, besides that customers can also operate the Go-Jek system easily. Customers can also menoperasikan system Go-Jek easily
3. The influence of social variables (X3) has no effect on Go-Jek's behavioral intentions in the city of Padang. In the sense that consumers' interest in using the Go-Jek service is not influenced by social or environmental factors such as friends or family
4. Variable behavioral intention have a significant effect on the use of behavioral. The results support the results Venkatesh, et al., (2003) which stated that there is a significant relationship to the interest in the utilization of information technology systems and their use. When customers want to try, to continue the use of Go-Jek and plan to use it on a regular basis, with an adequate device, customers will feel confident to use Go-Jek city of Padang
5. The condition of facilitating variables has the greatest significant positive effect for users in using Compass e-Paper. This is according to previous research. Triandis, (1980) states the Facilitation Condition as an objective factor that can facilitate an action. Ease will take action if supported behavioral intentions, will result in a better use of behavior. With availability

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