FACTORS AFFECTING THE ACTUAL USE OF RIDE-HAILING SERVICES (GOJEK/GRAB) IN INDONESIA (JABODETABEK-REGION)

Abstract: Ride-hailing is received great attention and considered a phenomenal means of transportation in Indonesia such as Jakarta Bogor, Depok, Tangerang, and Bekasi (JABODETABEK-Region). Understanding the effect of actual usage intention on ride-hailing service is very important to promote these services. In this study, the Acceptance Model Technology (TAM) became the model of our research framework, which was added 3 variables: personal innovativeness, perceived risk, and actual of use. This research model was empirically tested using questionnaire survey data with 100 participants in JABODETABEK-Region. In this study we used the SmartPLS (Partial Least Square) application, to process questionnaire survey data. The results show that perceived ease of use strong significant perceived usefulness. Perceived ease of use, perceived usefulness and perceived risk support intention behavior, while perceived risk does not have a significant effect on perceived usefulness and personal innovativeness does not have a significant effect on perceived risk. The analysis shows that contrary to our expectations and previous researchers that’s negative personal innovativeness does not support perceived usefulness and intention behavior. This difference may occur due to different research areas with different cultures. Based on these results, we recommend further research.

Keywords: Ride-hailing, TAM, Behavioral intention, Actual of use

1. Introduction

In this millennial era, it is not surprising anymore that technology usage is bonded with our daily lives (Monteiro, 2018). Moreover, if that technology has an important role in daily activities (Line, Jain, & Lyons, 2011). For example, ride-hailing application, such as Uber, Gojek and Grab, which is becoming hot topic among researches (Christina, Suhud, & Rizan, 2018; Clewlow, Shankar Mishra, Clewlow, Affiliate, & Kulieke, 2017; Feng, Kong, & Wang, 2017; Sadowsky & Nelson, 2017; Y. Wang, Wang, Wang, Wei, & Wang, 2018). Ride-hailing application is an application that allows passengers to call a taxi to pick them up and bring them to their destination by using mobile devices (He & Shen, 2015). With this technology, the average passenger

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Waiting can be reduced, compared to traditional taxi-hailing technique (Feng et al., 2017). Besides that, its ease and simplicity, making this technology become popular in other countries (Christina et al., 2018; Clewlow et al., 2017; Y. Wang et al., 2018). In Indonesia, ride-hailing application has been popular since 2015 (Prabowo, 2018). Starting from the founding of GOJEK - the first local company who is providing ride-hailing in Indonesia in 2011 and followed by GRAB and UBER in 2014 (Prabowo, 2018), ride-hailing services in Indonesia keeps growing until now. Today, ride-hailing in Indonesia have reached 15.73 million user or equivalent to 29.6% of all mobile users in Indonesia (Cahya, 2018). Where GOJEK has become the most desirable company compared to the other two competitors (katadata, 2018).

However, this ride-hailing application has controversy in several countries (Clewlow et al., 2017; R. Wang, 2011). Various problems, including the absence of clear regulation form government, passenger security and safety, increasing congestion, and unhealthy competition due to the increasing number of ride-hailing providers (Clewlow et al., 2017; Y. Wang et al., 2018); raises an interesting question to study. What factor that drives users or passengers to use ride-hailing application.

Some reasearchers have conducted similar research. For example, Mahendra & Septiany (2018), who did a research about factor which influence intentions to use online transportation, case study: GRAB. Waruwu & Adhutama(2017), also have did research about factors that influence ride-hailing acceptance, case study: GOJEK in Bandung. However, study to find out the factors that influence the intention to use ride-hailing applications in JABODETABEK has not been done yet. Therefore, the study will discuss about the influence factor from perspective of Technology Acceptance Model, Perceived Risk and Personal Innovativeness.

2. Literature Study

2.1. Ride-Hailing

Ride-hailing application is a platform which makes it easy for driver and passenger to communicate efficiently (He & Shen, 2015). This service involves three parties: passengers, drivers, and provider; where demand from passengers and driver availability can be met and controlled by ride-hailing provider (Pham, Dacosta, Jacot-Guillarmod, Huguenin, & Hubaux, 2017). While according to Clewlow et al. (2017), ride-hailing application allowed passengers to request a driver and ride through mobile device and their location would be sent to driver using GPS.

At first, ride-hailing was often equated with ride-sharing. In fact, ride-hailing and ride-sharing have different concept (Clewlow et al., 2017). Ride-sharing referred to a concept where two or more people who have same destination and schedule, would like to share ride and share transportation cost, such as fuel cost, parking fee, toll fee, etc. (Agatz, Erera, Savelsbergh, & Wang, 2012; Furuhata et al., 2013; Y. Wang et al., 2018).

If both of them were compared, in ride-hailing case, passenger create new capacity by ordering trips from A to B (Pham et al., 2017). Without request from passenger, that trip will never happen. Here, it could be seen clearly that the main purpose of ride-hailing is to seek profit (Y. Wang et al., 2018). Meanwhile in ride-sharing case, although there’re no passenger who would like to have a ride from A to B, the trip would still happen because the driver had planned the trip at the beginning (Schor, 2017). And because the aim of ride-sharing is to share travel cost instead of profit, the driver will do the travel even if there are passenger or not (Agatz et al., 2012; Schor, 2017).

Although ride-hailing or ride-sharing has its own objectives, in terms of operation, both of them can be said to be almost same (He & Shen, 2015; Y. Wang et al., 2018).
Passenger can request the ride through mobile device. That request should be equipped with passenger’s identity, pick up location and destination. Afterwards, the provider will match driver and passenger based on driver availability, pick up location and destination. The provider will also send passenger’s information to driver and also vice versa, so both parties can communicate with each other (Pham et al., 2017). In addition, the application also provides a calculation feature to estimate travel cost and will give to passengers before the trip begins (Pham et al., 2017). However, in this study, we will only focus on ride-hailing applications.

2.2. TAM (Technology Acceptance Model)

Technology acceptance model (TAM) was the first model which said that psychological factor also influence technology acceptance and was the development of the previous model, namely Theory of Reasoned Action (TRA) (Davis, 1989; Samaradiwakara & Gunawardena, 2014). Davis (1989) argued that perceived usefulness (PU) and perceived ease of use (PEOU) have an influence on someone’s intention to use the system with an interest in using the service as an intermediary it reaches the actual stage. There were many studies that have applied and developed TAM as a basis for research on the acceptance and use of technology (Gefen, 2000; Venkatesh, Morris, Davis, & Davis, 2003; Venkatesh, Thong, & Xu, 2012).

Perceived usefulness (PU) was defined by Davis as “the degree to which a person believes that using a particular system would enhance his or her job performance” (Davis, 1989). On the other hand, Perceived ease of use (PEOU), refer to “the degree to which a person believe that using a particular system would be free of effort” (Davis, 1989). The importance of PEOU was supported by self-efficacy theory which found by Bandura (1982). He was said that self-efficacy referred to “an individual’s belief in his or her capacity to execute behaviors necessary to produce specific performance attainments.“ Bandura’s theory distinguished self-efficacy assessment from outcome assessment which related to the extent of behavior after successful execution and how valuable the result are (Bandura, 1982). That outcome variable has similarities with PU (Davis, 1989). From the results of that studies, Davis (1989) concluded that “ease of use operates through usefulness.”

However, PEOU role in Information Technology (IT) more complicated than what has been explained based on the theories above (Gefen, David and Straub, 2000). According to Gefen et al. (2000), PEOU in IT also measures the value of intrinsic aspects of IT use, such as user interface and the processes involved in its use. It can be said that, because of extrinsic aspect of IT (which captured by PU) and not the intrinsic aspect, which become the reason for a new technology adopted. This implies that PU and not PEOU, must directly influence technology adoption. Furthermore, David Gefen et al. (2000) also argued that PEOU should influence IT adoption and IT characteristic. For example, the clarity of user interface and ease of navigation or contribute to the actual result used by IT (Gefen, David and Straub, 2000). Conceptually, this must occur when the output of IT is bound by the user interface itself, in this case, IT PEOU must be directly correlated with the value placed on the IT results.

2.3. Perceived Risk

The concept of consumer’s perceived risk or commonly referred to as perceived risk, has been accepted as a major element in consumer decision making (Oglethorpe & Monroe, 1994). According to Cox (1967), the perceived risk variable is first modeled as a single variable in the TAM (Technology Acceptance Model) which is then combined
with other variables. When the issue of perceived risk begins to be associated with consumer behavior theory, many examine human behavior with the theory of consumer behavior. One of them according to Havlena & DeSarbo (1991), research on perceived risk theory includes things about: perceived risk characteristics, types of perceived risk, the relationship between perceived risk and product class or product characteristics, the influence of individual differences on perceived risk measurement, and perceived risk measurement.

In Bettman's research (1973), explained that every act of the consumer will produce consequences that cannot be anticipated with anything that can be predicted. And among these consequences may be disappointing. This statement encourages other researchers to deepen the concept of perceived risk by conducting further research.

When the concept of perceived risk was first introduced, a construct was proposed to explain phenomena in consumer behavior such as information retrieval, brand loyalty, and trust in others in purchasing decisions. The basic idea behind this construct is not new, but is more inspired by statistical theories, psychology and economics. In these theories, perceived risk is associated with selective situations which potentially can be positive and negative. Conversely, in consumer behavior, the concept of risk only focuses on the potential negative results. This potential negative outcome will be an important difference between the understanding of risk in consumer behavior and the notion of risk used in other disciplines (Stone & Grønhaug, 1993).

2.4. Personal Innovativeness

Innovation can be defined as the extent to which an individual is relatively early in adopting an innovation than other members of the system (Bailey, Rogers, & Shoemaker, 1974). The development of creative ideas as outlined both internally and externally that comes from within a person so that it will generate new ideas. Individual innovativeness is a continuous trait or attitude that determines how a person feels and reacts to an innovation (Yi, Fiedler, & Park, 2006), where the higher the level of individual innovativeness will produce a more positive reaction.

Personal innovativeness reflects their willingness to change (Hurt, Joseph, & Cook, 1977). In the context of IT, Personal Innovative in IT (PIIT) is defined as an individual's willingness to try something new in information technology (Agarwal & Prasad, 1999), then the PIIT scale was developed and validated. In practice, understanding personal innovativeness can help identify in organizations, individuals who tend to adopt information technology earlier than others and function differently as change groups to facilitate new technologies (Agarwal & Prasad, 1999).

3. Research Design and Method

3.1. Hypothesis

Based on the explanation in the previous chapter, we formulated the following hypothesis:

H1: Perceived ease of use has positive influence on perceived usefulness.

Perceived ease of use and perceived usefulness are variables from TAM (Technology Acceptance Model). TAM was introduced by Davis (1989). This model is used to describe user behavior in using information technology. The hypothesis that perceived ease of use has influence on perceived usefulness was taken from TAM model. In Fred D. Davis' studies (Fred D. Davis, 2010), the more users feel that system is easy to use, the more they feel that system is useful and vice versa. Naiwumbwe (2012) has used this hypothesis on his studies about fund transfer through smart-phone devices. And he found that perceived ease of use has
strong and direct relationship with perceived usefulness.

H2: Perceived ease of use has positive influence on behavioral intention.

Perceived ease of use and perceived usefulness are variables from TAM (Technology Acceptance Model). TAM was introduced by Davis (1989). This model is used to describe user behavior in using information technology. Naiwumbwe (2012) has used this hypothesis, and he found that perceived ease of use has strong and direct relationship with perceived usefulness.

H3: Perceived usefulness has positive influence on behavioral intention.

Perceived ease of use and perceived usefulness are variables from TAM (Technology Acceptance Model). TAM was introduced by Davis (1989). This model is used to describe user behavior in using information technology. This hypothesis was adopted from TAM. In Amoako-Gyampah’s studies (2007), he found that perceived usefulness of ERP has strong influence on user behavioral intention to use that system.

H4: Perceived risk has negative influence on perceived usefulness.

Perceived risk was an additional variable in this study. In Y. Wang’s journal (2018), they have explained that perceived risk not only give influence directly to intention to use ride-sharing, but also give influence to perceived usefulness indirectly. Therefore, we used this hypothesis from previous researcher to this study. Loanata et al. (2016) also has explained in his case study about e-commerce Traveloka. He found that perceived risk has negative influence on perceived usefulness.

H5: Perceived risk has negative influence on behavioral intention.

Y. Wang (2018), in his article has found that perceived risk has negative influence on behavioral intention. We use this hypothesis as our additional hypothesis. Henry (2017) said that perceived risk has no effect on purchase intention (behavioral intention) on customers who shop online through Facebook. The lower the risk that customers perceived does not have a real impact on increasing customer intention to shop online through Facebook.

H6: Personal innovativeness has positive influence on perceived ease of use.

In Nalsalia’s article (2014), she has explained that personal innovativeness of KLIK-BCA users have positive influence on perceived ease of use m-BCA. Consumers who have innovator or early adopter characteristic tend not to be afraid to accept the risk arises when using new technology. According to Amoroso & Lim(2015), he has explained that, the relationship between personal innovativeness and perceived ease of use are strong. Therefore, we use this hypothesis as our additional hypothesis.

H7: Personal innovativeness has positive influence on perceived usefulness.

In Hartini’s article (2011), she has explained that perceive usefulness affect consumer behavioral in e-banking. In addition, this influence will be strengthened by consumer innovativeness and consumer expertise. The greater the benefits perceived by consumers regarding e-banking, the more positive consumer’s attitude towards transactions with e-banking will be. This positive attitude will be stronger if the consumer has high innovation, because they always like new things, always need a variety of services, always a source of information. These characteristics will further increase their liking and intention to use transactions with e-banking. We make the hypothesis of this study an additional hypothesis in this study.

H8: Personal innovativeness has negative influence on perceived risk.

In previous research, Y. Wang (2018) has explained that personal innovativeness has strong negative influence on perceived risk. Therefore, we use this hypothesis on our study.

H9: Personal innovativeness has positive influence on behavioral intention.

In Ariansyah’s research (2012), she has explained that personal innovativeness has
positive influence on behavioral intention of people in Belitung to use electronic phone balance. In other studies, Thakur & Srivastava(2014) have explained that personal innovativeness which have measured in PIIT have positive impact on continuous intention on m-commerce. Therefore, we use this hypothesis as part our study.

H10: Behavioral intention has positive influence on actual of use.
This hypothesis is taken from TAM (Technology Acceptance Model)(Davis, 1989). In Brusso’s research (2015), he has explained that behavioral intention leads to the development of an implementation plan, which then leads to the use of technology. Therefore, we added this hypothesis to our research.

![Figure 1. Research Model](image)

### 3.2. Variable Measurement

To achieve the purpose of this study, the authors used a research model as can be seen in Figure 1. This research model was designed based on references from Y. Wang et al. (2018) research and had been developed by adding Actual of Use Variable. This research will use independent variable (Personal Innovativeness), intermediate variable (Perceived Ease of Use, Perceived Usefulness, Perceived Risk, and Behavioral Intention), and dependent variable (Actual of Use).

As measuring indicators for each of these variables, authors has described it in Table 1. For each variable, there are 3 indicators that will be used to assist in the measurement, and 4 indicators for Perceived Risk variable.

<table>
<thead>
<tr>
<th>Var.</th>
<th>Code</th>
<th>Indicator</th>
<th>Reff</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI</td>
<td>PI1</td>
<td>Experiment</td>
<td>(Y. Wang et al., 2018)</td>
</tr>
<tr>
<td></td>
<td>PI2</td>
<td>Try the new thing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PI3</td>
<td>Experience</td>
<td></td>
</tr>
<tr>
<td>PEOU</td>
<td>PEOU1</td>
<td>Ease of use</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PEOU2</td>
<td>Simple</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PEOU3</td>
<td>No problem</td>
<td></td>
</tr>
<tr>
<td>PU</td>
<td>PU1</td>
<td>Quickly</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PU2</td>
<td>Easier</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PU3</td>
<td>Mitigate congestion</td>
<td></td>
</tr>
<tr>
<td>PR</td>
<td>PR1</td>
<td>Personal information</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PR2</td>
<td>Collects information</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PR3</td>
<td>Not safe</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PR4</td>
<td>Property safety</td>
<td></td>
</tr>
</tbody>
</table>
Using intensity (Y. Wang et al., 2018)
Recommendation
Continuity

Avoid congestion (Clewlow et al., 2017; Y. Wang et al., 2018)
Decrease travel time (Feng et al., 2017)
Using frequency (Muntian et al., 2012)

3.3. Data Collection

Data in this research was collected by using random sampling techniques of people who live in JABODETABEK. By distributing online questionnaire via e-mail, social media and forum. This questionnaire consists of two sessions, questions about demographic information of respondents and followed by a number of questions design according to the predetermined measurement indicators of the model.
This questionnaire is distributed from August 13, 2018 to August 18, 2018. Which the respondent we obtained have demographic profile as below:

<table>
<thead>
<tr>
<th>College</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>48</td>
<td>48%</td>
</tr>
<tr>
<td>Female</td>
<td>52</td>
<td>52%</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100%</td>
</tr>
</tbody>
</table>

16-25 years old 35 35%
26-35 years old 51 51%
36-45 years old 10 10%
>45 years old 4 4%
Total 100 100%

3.4. Data Processing

For data management, we use the concept of structural equation modeling (SEM) and SmartPLS application.

<table>
<thead>
<tr>
<th>Code</th>
<th>Loading Factor</th>
<th>AVE</th>
<th>C.R</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI1</td>
<td>0.932</td>
<td>0.811</td>
<td>0.928</td>
<td>Valid &amp; Reliable</td>
</tr>
<tr>
<td>PI2</td>
<td>0.881</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI3</td>
<td>0.888</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEOU1</td>
<td>0.759</td>
<td>0.677</td>
<td>0.863</td>
<td>Valid &amp; Reliable</td>
</tr>
<tr>
<td>PEOU2</td>
<td>0.853</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEOU3</td>
<td>0.871</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PU1</td>
<td>0.781</td>
<td>0.558</td>
<td>0.786</td>
<td>Valid &amp; Reliable</td>
</tr>
<tr>
<td>PU2</td>
<td>0.867</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PU3</td>
<td>0.560</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PR1</td>
<td>0.607</td>
<td>0.578</td>
<td>0.842</td>
<td>Valid &amp; Reliable</td>
</tr>
<tr>
<td>PR2</td>
<td>0.625</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PR3</td>
<td>0.912</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PR4</td>
<td>0.851</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BI1</td>
<td>0.877</td>
<td>0.756</td>
<td>0.903</td>
<td>Valid &amp; Reliable</td>
</tr>
<tr>
<td>BI2</td>
<td>0.865</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BI3</td>
<td>0.866</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AOU1</td>
<td>0.747</td>
<td>0.714</td>
<td>0.882</td>
<td>Valid &amp; Reliable</td>
</tr>
<tr>
<td>AOU2</td>
<td>0.861</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AOU3</td>
<td>0.919</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

First, we test the validity and reliability for all variables and indicators. We test this validity and reliability to ensure that the data collected can be used and can be trusted.
The test results in Table 3 explain that the AVE value in the research variable has a value above 0.5, so this measurement can be concluded to meet the measurement requirements of discriminant validity.
In addition, Table 3 also shows the value of good composite reliability. All variables have a composite reliability value above 0.7, which can be concluded that all the latent variables in this study are reliable and all indicators become a measurement tool for their respective constructs.
4. Calculation Result

From the results of testing the hypothesis using smartPLS application shows that eight of the ten hypotheses can be accepted, with the following details:

### Table 4. Result of Hypothesis Measurements

<table>
<thead>
<tr>
<th></th>
<th>Standard Deviation</th>
<th>T-Statistic</th>
<th>P-Values</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>0.114</td>
<td>2.085</td>
<td>0.023</td>
<td>Supported</td>
</tr>
<tr>
<td>H2</td>
<td>0.091</td>
<td>2.223</td>
<td>0.016</td>
<td>Supported</td>
</tr>
<tr>
<td>H3</td>
<td>0.077</td>
<td>5.529</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>H4</td>
<td>0.136</td>
<td>1.998</td>
<td>0.046</td>
<td>Supported</td>
</tr>
<tr>
<td>H5</td>
<td>0.100</td>
<td>2.384</td>
<td>0.025</td>
<td>Supported</td>
</tr>
<tr>
<td>H6</td>
<td>0.114</td>
<td>2.331</td>
<td>0.020</td>
<td>Supported</td>
</tr>
<tr>
<td>H7</td>
<td>0.103</td>
<td>0.652</td>
<td>0.514</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H8</td>
<td>0.140</td>
<td>1.986</td>
<td>0.045</td>
<td>Supported</td>
</tr>
<tr>
<td>H9</td>
<td>0.095</td>
<td>0.423</td>
<td>0.673</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H10</td>
<td>0.098</td>
<td>3.525</td>
<td>0.000</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Note: Supported with p ≤ 0.05, t ≥ 1.983;

H1: Perceived ease of use has positive influence on perceived usefulness.
Direct influence perceived ease of use to perceived usefulness gets p value 0.023 which is smaller than 0.05, and t-statistic 2.085 is greater than 1.983. From these results it can be concluded that hypothesis 1 is acceptable, namely perceived ease of use has a positive and significant effect on perceived usefulness.

H2: Perceived ease of use has positive influence on behavioral intention.
Direct influence perceived ease of use towards behavioral intention to get p value 0.016 which is smaller than 0.05, and t-statistic 2.223 is greater than 1.983. From these results it can be concluded that hypothesis 2 is acceptable, that is perceived ease of use has a positive and significant effect on behavioral intention to use.

H3: Perceived usefulness has positive influence on behavioral intention.
The perceived usefulness of direct influence on the behavioral intention to get p value 0.000 which is smaller than 0.05, and the t-statistic of 5.529 is greater than 1.983. From these results it can be concluded that hypothesis 3 can be accepted. Or in other words, there is a positive and significant effect on perceived usefulness on behavioral intention to use.

H4: Perceived risk has negative influence on perceived usefulness.
The direct influence of perceived risk on perceived usefulness gets a value of p 0.046 which is smaller than 0.05, and t-statistic 1.998 is greater than 1.983. From these results it can be concluded that hypothesis 4 can be accepted, namely that perceived risk has little influence (not as dominant as other factors) negative on perceived usefulness.

H5: Perceived risk has negative influence on behavioral intention.
The perceived risk direct influence on the behavioral intention gets a p value of 0.025 which is smaller than 0.05, and the t-statistic of 2.384 is greater than 1.983. From these results it can be concluded that hypothesis 5 is acceptable, namely perceived risk has a negative and significant effect on behavioral intention.

H6: Personal innovativeness has positive influence on perceived ease of use.
The direct effect of personal innovativeness on perceived ease of use gets p value 0.020 which is smaller than 0.05, and t-statistic 2.331 is greater than 1.983. From these results it can be concluded that hypothesis 6 can be accepted, namely personal innovativeness has a positive and significant effect on perceived ease of use.

H7: Personal innovativeness has positive influence on perceived usefulness.
The direct effect of personal innovativeness on perceived usefulness gets a p value of 0.514 where not smaller than 0.05, and the t-statistic of 0.625 is not greater than 1.983. From these results it can be concluded that hypothesis 7 is rejected. Or in other words,
there is no influence of personal innovativeness on perceived ease of use. H8: Personal innovativeness has negative influence on perceived risk. The direct effect of personal innovativeness on perceived risk gets a value of p 0.045 which is smaller than 0.05, and t-statistic 1.986 is greater than 1.983. From these results it can be concluded that hypothesis 8 is acceptable, that is personal innovativeness has little influence (not as negative as other factors) negative on perceived risk.

H9: Personal innovativeness has positive influence on behavioral intention. The direct effect of personal innovativeness on behavioral intention to get a value of p 0.423 where not smaller than 0.05, and the t-statistic 0.673 is not greater than 1.983. From these results it can be concluded that hypothesis 9 is rejected. Or in other words, there is no influence of personal innovativeness on behavioral intention.

H10: Behavioral intention has positive influence on actual of use. The direct effect of behavioral intention on actual of use gets a p value of 0.000 which is smaller than 0.05, and the t-statistic of 3.525 is greater than 1.983. From these results it can be concluded that hypothesis 10 is acceptable, namely behavioral intention has a positive and significant effect on the actual of use.

5. Discussion and Future Research

The following are the results we got from our study:

From table 5 we found that H1, H2, H3, H5, H6, and H10 support our hypothesis statement. We also found that the main factor of this acceptance technology is perceived-ease-of-use and followed by perceived-usefulness.

Table 5. Result of Hypothesis

<table>
<thead>
<tr>
<th>H</th>
<th>Hypothesis</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Perceived ease of use has positive influence on perceived usefulness.</td>
<td>Supported</td>
</tr>
<tr>
<td>H2</td>
<td>Perceived ease of use has positive influence on behavioral intention.</td>
<td>Supported</td>
</tr>
<tr>
<td>H3</td>
<td>Perceived usefulness has positive influence on behavioral intention.</td>
<td>Supported</td>
</tr>
<tr>
<td>H4</td>
<td>Perceived risk has negative influence on perceived usefulness</td>
<td>Supported</td>
</tr>
<tr>
<td>H5</td>
<td>Perceived risk has negative influence on behavioral intention.</td>
<td>Supported</td>
</tr>
<tr>
<td>H6</td>
<td>Personal innovativeness has positive influence on perceived ease of use.</td>
<td>Supported</td>
</tr>
<tr>
<td>H7</td>
<td>Personal innovativeness has positive influence on perceived usefulness.</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H8</td>
<td>Personal innovativeness has negative influence on perceived risk</td>
<td>Supported</td>
</tr>
<tr>
<td>H9</td>
<td>Personal innovativeness has positive influence on behavioral intention</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H10</td>
<td>Behavioral intention has positive influence on actual of use.</td>
<td>Supported</td>
</tr>
</tbody>
</table>

This statement is supported by Davis (1989) where the ease of use and benefits felt by users are greatly affect the acceptance and use of a technology. We also found that perceived risk has a small influence on perceived usefulness (H4). This indicates that the benefits of ride-hailing use take precedence over the risks gained by ride-hailing users. This is interesting for future research. The same thing also happened to our hypothesis about personal innovativeness towards perceived risk (H8). This shows that the level of personal innovativeness in each individual has a little effect on the possible risk that will be received on ride-hailing. We get different things on H7 and H9, where personal innovativeness does not
Affect perceived usefulness and behavioral intention. This is contrary to the previous research (Cheng & Huang, 2013; Kim, Mirusmonov, & Lee, 2010; Kuo & Yen, 2009; Y. Wang et al., 2018) where in these studies explained that personal innovativeness has a positive effect on perceived usefulness and behavioral intention. This difference may be caused by different research areas where culture and culture are also different.

In this study we see that the level of personal innovativeness has no effect on intention to use. It is possible because of other external factors that have not been studied in this study. Therefore, further research is expected to add external factors such as the level of economic and social influence in the use of technology.

6. Conclusion

This study shows that user’s behavioral intention and user’s actual usage of ride-hailing are strongly influenced by perceived ease of use and perceived usefulness. This can be seen from the results of our hypothesis regarding the ease of using ride-hailing services and the benefits of using ride-hailing. Meanwhile, we also found that the level of user’s personal innovativeness have no influence on perceived usefulness and user’s behavioral intention to use ride-hailing. It means, there are other external factors that influence the acceptance and use of technology, such as culture, social influence, and other things.

In this study, we also found that the most influential factor in ride-hailing users in Indonesia is the perceived usefulness. This can be seen from the results of our hypothesis testing regarding the effect of perceived usefulness on behavioral intention. We found that the influence of perceived usefulness on behavioral intention was significant.

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