Testing The Theory of Planned Behavior and Perceived Risk to Predict Intention to Used of Pay Later Services

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ABSTRACT

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The phenomenon of pay later users that is increasing significantly makes a lot of companies compete each other on such industry. However, it creates new problem which is the high amount of rent by customers. This study aims to reveal the intention preference of financial technology and e-commerce users towards pay later services. The writer used TPB as the reference and added the risk perception as the independent variable. This study is a quantitative study through online surveys which is analyzed using 26th version of SPSS. The result shows that behavior, subjective norm, perceived behavioral control, and perceived risk influenced positively towards the intention to use pay later services. Besides, perceived risk has less influence towards the intention to use pay later services.

Introduction

Information technology is growing rapidly throughout the world. Various services based on information technology has a good impact to facilitate, accelerate, and reduce dependency of human resources usage (Ahmad et al., 2022). Globally, Indonesia is the 4th largest population in the world with amount of 259.4 million people, and 30% of them is categorized as Generation Z (Ayu et al., 2021). From the statistic center on September 2022, the Indonesian population who had accessed Internet in 2021 was about 62.1%. After that, APJII reported that Indonesians who accessed internet in 2022 was about 77.02%, 210 billion people. It shows a significant increase about 3.32%. From those data, the Indonesians who used e-commerce were about 60.6% and 65.4% as a fintech users. Globally, Indonesia is on the 4th ranking from 259.4 Billion people where 30% from them are Z generation. According to the data, the amount of internet users affects the growth of e-commerce, fintech, e-wallet by emerging Buy Now, Pay Later (BNPL) services. BNPL itself had emerged from 2019, yet still not popular (Kenney et al., 2022). Research And Market (2022) reveals the pay later services transaction in Indonesia reached $1.5 Billion at 2021 and it is predicted to grow till $9.2 Billion at 2028 with Compounded Annual Growth Rate...
about 29.2%. The easiness and practicability become contributive factors for the growth of pay later consumption (Huda, INDEF, 2022).

According to Katadata Insight Center (2022), Pay later users were getting increased till December 2022. It's about 55% especially in Pandemic era. This increase brought several problems, one of that is the case which got viral in Twitter. There is a user tweeted a screenshot of paylater bill which were too expensive to paid. Surprisingly, it was a teen pay later bill given to his parents. Over hundreds of the similar cases happens and get viral in social media. Huda, INDEF (2022) reckoned that this case were started from the low of society understanding towards paylater services, so they might have a high rent of pay later bill

A Lot of studies related to the use of e-wallet were done by several researchers. Related to “subjective norm” variable, Mazambani & Mutambara, (2020) reveals that it is not significant towards the intention to use e-wallet, but Niswah et al., (2020) reveals contradictively even to the use of e-wallet waqf. Another study by Jesuthasan & Umakanth (2021) proved that attitude toward behavior does not significantly influence the intention to use e-wallet which is similar to Watmah et al., (2020). According to perceived behavioral control (PBC) variable, some studies like Niswah et al. (2019) and Azizah et al., (2022) resulted that it is not significant towards the e-wallet use intention. Contradictively, Hasym & Nurohman (2021) quoted Sodik et al., (2022) that PBC has significant influence. Besides, under the Perceived Risk variable, Aji et al., (2020); Jesuthasan & Umakanth (2021); Ahmad et al. (2022) proved that it affects the intention of e-wallet use, but it does not happen to Teng Tenk et al., (2020); Astari et al., (2022) researches. From those many studies, it can be concluded that the results are inconsistent, depending on the subjects taken. The problem of this study started from the growth of pay later services which may make the company leaders become happy, but behind that, people start to heap the arrears up bigger and bigger. So, what are the reasons of people using pay later services? Ajzen (2020) defined that intention is a motivation to encourage people to do something.

By this, the relevant theory that can be used to examine people intention is theory of planned behavior (TPB) with three independent variables, they are attitude, subjective norm, dan perceived behavioral control (Ajzen, 1991). TPB is a common theory to understand people behavior (Ajzen, 1991). However, the high risk of pay later services made the researcher put one more independent variable, namely perceived risk, an uncertain prediction towards the negative consequences of the use of a product or service (Feathman & Pavlou, 2003). So, the purpose of this study is to
reveal the influence of three independent variable from TPB and perceived risk towards the intention of pay later services use.

**Literature Review**

**Buy Now Pay Later (BNPL)**

BNPL is one of fintech product which belongs to path of financial technology products by providing financial credits on both fintech and marketplace applications. It works by giving the users choices to pay the products later in one or more payment frequency and the users will get the interest. The rent is usually separated the third person from the retailer (Kenney et al., 2022). Usually, the application does not give interest but it would be given if the users were late to pay the rent (Kenney et al., 2022).

**Theory of Planned Behavior**

TPB is the developed from the theory of reasoned action (TRA) which does not include the way to handle people behavior because every individual has a different level of control behavior that limit them to behave. So, TRA is not enough to examine people behaviour (Ajzen & Fisbhein, 1980); Fisbhein & Ajzen (1975).

TPB is deemed necessary, especially because of the inability of the previous model to measure the behavior of individuals who are considered to have control over their will (Ajzen, 1991). Perceived behavioral control is an exogenous variable that has direct and indirect effects on a person's behavior (Ajzen, 2011). It can be defined as a person's belief about available resources or opportunities that facilitate them to carry out intentions (Ajzen & Fishbein, 1977).

**Attitude**

Attitude is a form of positive or negative reflection of an object of behavior to perform an action (Ajzen, 1991). According to Fisbhein & Ajzen (1975) defines attitude as a positive and negative feeling towards an object. Attitudes have a high correlation with behavioral intentions and lead to verbal responses and overt actions (Ajzen, 1991). It also can be accurately predicted by different types of behavior (Ajzen, 1991).

**Subjektive Norm**

Fisbhein & Ajzen (1975) explained subjective norms is an individual's belief in the social environment influence to take certain actions. According to Ajzen (1991), it's a benefit with a basic belief which is often referred to as a normative belief. Normative belief is a different understanding of a group that influence individual
behavior, social, behavior rooted in families, couples, co-workers, relatives, friends, and other people (Ajzen, 1991). Social power is an important part of subjective norms, which are exercised through rewards and punishments passed on by individuals to other individuals (Fishbein & Azjen, 1980).

**Perceived Behavioral Control**

Ajzen (1991) explains perceived behavioral control (PBC) is a perception which makes an encouragement or obstacle perceived by an individual to take action. PBC is the third variable in TPB which explains the perception of someone who experiences a situation that makes it easier or a situation that makes it difficult to carry out the intention to behave (Ariffin et al., 2021). With the addition of perceived behavioral control it can increase the power of TPB in predicting and explaining behavioral intentions (Yzer, 2012). This is a belief related to the presence of control factors within a person that can accelerate or inhibit the performance of behavior carried out by that person (Ajzen, 2002).

**Intention to Use**

Fishbein & Ajzen (1975) defined that intention is used as a person's place subjectively related to a person's self and actions that might occur. Intention is one of the factors that motivate and influence the behavior of an individual, basically this intention is an indicator of the actual use behavior (Ajzen, 1991). Then for the outline in the TPB, the actions taken by an individual on the object of behavior will be directly influenced by the intention to behave (Ajzen, 2002).

**Perceived Risk**

According to Kotler & Keller (2009) perception is a process of organizing, selecting, and interpreting information in creating a general picture. Perceived risk is a risk by perception. It describes the likelihood of negative outcomes from the usage of product or service (Jesuthasan & Umakant, 2021). Then Mowen & Minor (2002), said that the perception of risk is a negative perception of someone in carrying out an action, this could have happened due to the consumer's situation at that time being not good. Perceived risk can be described as a main distractive for consumers in reconsidering paylater services use Chandra & Kohardinata (2021). According to Schiffman & Kanuk (2008) defines risk as the uncertainty of an individual when facing a decision taking without predicting the impact that will occur when deciding. This risk becomes important because of the beliefs that determine consumer decisions in using financial technology (Ryu, 2018). Perceived risk is a form of lack of
trust and a significant negative factor that actively influences technology adoption Yasa et al. (2022).

**Relationship between Variables**

Attitude describes how deeply a person evaluates good or bad events (Ajzen, 1991). The attitude in this study refers to how deep an individual takes action with good or bad results from the evaluation carried out to plan an activity in the future. In the findings of a study conducted by Watmah et al. (2020) stated that the attitude variable has an influence on the intention to take an action. Jesuthasan & Umakanth (2021) confirms that attitude has no effect on intention to use and findings in Hasyim et.al.’s (2021) research, confirms that attitude has an effect on intention to use.

H1: Attitudes influences intention to use pay later services positively.

Subjective norms in this study are defined as external drives that can influence individuals to use pay later services (Azjen, 1991; Javadi, et al. 2012). By keeping up with the times, everything that exists experiences a change, and it has an impact on one's intention to follow the existing pattern. In their research, Sodik et al. (2022); Niswah et al. (2019) stated that subjective norms affect intentions in using technology. However, there are other findings in his research. Mazambani & Mutambara, (2020) confirms that subjective norms do not affect intention to use and the findings in Lin et al.’s research. (2021) confirms that subjective norms have an effect on intention to use.

H2: Subjective norms influences intention to use pay later services positively.

Perceived behavioral control is defined as a person's view of his own ability to perform certain actions (Ajzen, 1991; Fishbein & Ajzen, 2010; Javadi et al., 2012). In this study interprets that PBC is a person's observation of the behavior to what extent the individual has the power and control over the intention to do something. These strengths are human resources, natural resources owned by humans (Azjen, 2002). In his research Hasyim & Nurohman (2021); Sodik et al. (2022) stated that PBC can influence a person's intention to use a service. However, there are other findings in their research by Azizah et al., (2022) confirming that PBC has no effect on intention to use and findings in Mazambani & Mutambara's (2019) research confirms that PBC has an effect on intention to use.

H3: Perceived behavioral control influences intention to use pay later services positively.
Perceived risk can be interpreted as a perception that is the main barrier for consumers in making judgments about using pay later services. From his research Ming et al. (2020); Chandra & Kohardinata, (2021), which has the intent and purpose of knowing the relationship between perceived risk and consumer intentions in using financial technology services. According to Schiffman & Kanuk (2008) defines risk as the uncertainty of an individual when facing a decision to be taken in taking action without predicting the impact that will occur when deciding. Perceived risk can be interpreted as a perception that is the main barrier for consumers in making judgments from using paylater services. Yasa et al. (2022) found that there was a negative relationship between perceived risk and intention to use. However, other findings by Astari et al. (2022) confirmed that perceived risk has no effect on intention to use and the findings in Azizah et al.’s (2022) research emphasized that there is a negative effect between perceived risk and intention to use.

H4: Perceived risk influences on intention to use pay later services negatively.

Here is the conceptual framework of the hypotheses above:

**Figure 1. Research Model**

**Method**

This research is quantitative research with a conclusive design. This conclusive design is intended to examine the relationship between independent variables, which are attitudes, subjective norms, perceived behavioral control and perceived risk with the dependent variable, which is the intention to use. This study uses online survey
data on 227 respondents. The purpose of this research is to improve one's skills in determining a decision to take an action.

The data were collected by distributing questionnaires and being filled by the respondents. The questionnaire consists of three parts. First, respondent's profile, such as gender, age, occupation, income, and goods or services that are frequently purchased. Second, it contains screening questions regarding knowledge about the paylater. Third, it contains a set of items to measure attitude, subjective norms, PBC, perceived risk, and intention to use.

TPB consist of four variables, and measured by items from Fishbein & Ajzen (2015), namely 3 items for attitude, 4 items for subjective norms, 5 items for PBC, and 4 items for intention. Perceived risk is measured using five dimensions. Financial risk (4 items), product risk (1 item), time risk (1 item), social risk (2 items), security risk (1 item) from Masoud (2013). The rating scale used in this study is the likert scale, because this likert scale is used to measure attitudes and opinions of a person, ranging from a very positive scale to a very negative scale such as strongly agree to strongly disagree (Ghazali, 2016).

The population defined in this study is e-commerce and/or financial technology applications users. The sample of this research was determined as many as 220 samples. According to Cohen, this number of samples is sufficient and meets minimum sample size. This study used multiple linear regression data analysis techniques using SPSS 26 (statistical package for social science) software. The stages of data analysis includes validity and reliability tests, assumption tests for regression model, and finally tested the hypotheses by t test at alpha 5%.

Result and Discussion

Respondents’ Characteristics

In this study, the sample with 227 respondents, dominated by women (56%) and 44% men and dominated by respondents aged 17-30 years (87%), aged 31-40 (11%), and age 41-50 (2%). Based on occupation, respondents were dominated by students (74%) and others (26%). In terms of income, it is dominated by respondents who have income in the range of IDR 1,000,000 – IDR 3,000,000 per month (42%), < IDR 1,000,000 per month (39%), IDR 3,000,000 – IDR 5,000,000 per month (11%), IDR 5,000,000 – IDR 10,000,000 per month (6.5%), and > IDR 10,000,000 per month (1.5%), as well as goods or services that are frequently purchased, they are clothing and accessories (52%), cosmetics (20%), and others (28%). From this description, female respondents aged 17-30 years who have jobs as students, earn IDR 1,000,000 – IDR
3,000,000 per month and the goods or services that are often purchased for clothing and accessories are the respondents who dominate in this study.

**Validity and Reliability Test**

The results of the validity test showed that the corrected item-total correlation for all items exceeded the threshold value of $r = 0.3$ for validity and Cronbach Alpha = 0.60 for reliability. Each item is considered valid, because has corrected item-total correlation more than 0.3. And, the results of the reliability test showed that the Cronbach's Alpha value for attitude was 0.608 > 0.60, the subjective norm was 0.875 > 0.60, the perceived behavioral control was 0.874 > 0.60, and the perceived risk was 0.875 > 0.60, and the intention to use was 0.887 > 0.60, which means that all variables are reliable and can be used to measure the effect of planned behavior theory and perceived risk on the intention to use pay later services.

**Assumption Test for Regression**

The normality test was carried out using the non-parametric statistical test One-Sample Kolmogorov Smirnov Test and showed an asymp sig value. (2-tailed) of 0.072 > 0.05, so it can be interpreted that the data is normally distributed. The multicollinearity test showed the tolerance value for attitudes is 0.609 > 0.05 and VIF is 1.642 <10, the tolerance value for subjective norms is 0.645 > 0.05 and VIF is 1.551 <10, the tolerance value for perceived behavioral control is 0.707 > 0.05 and VIF is 1.414 < 10, and the tolerance value for perceived risk is 0.916 > 0.05 and VIF is 1.040 < 10. This means that there is no multicollinearity. The heteroscedasticity test can be seen through the scatterplots graph which explains that there are many black dots that spread randomly about the Y axis, so that it can be interpreted that there are no symptoms of heteroscedasticity.

**Multiple Linear Regression and Hypotheses Testing**

The results of multiple linear regression test showed that the independent variables which are attitudes, subjective norms, perceived behavioral control, and perceived risk have a positive effect on intention to use, and for the perceived risk variable has a negative effect on intention to use. In this study, the following equation values were obtained. Equation (1)

$$Y = -2.602 + 0.510 X_1 + 0.232 X_2 + 0.299 X_3 + 0.065 X_4 + e$$

Judging from equation (1) the value of the constant ($\alpha$) is -2.602. This means that if the attitude value, subjective norm, perceived behavioral control, and perceived
risk are equal to zero (0), then the intention to use is -2.602. The attitude coefficient value is 0.510 and the coefficient is positive, this indicates that attitude has a positive effect and can encourage consumer use intentions. The subjective norm coefficient value is 0.232 and the coefficient is positive, this indicates that subjective norms have a positive effect and can encourage consumer use intentions. The coefficient value of the perceived behavioral control is 0.299 and the coefficient is positive, this indicates that the perceived behavioral control has a positive influence and can encourage the intention to use consumers. The risk perception coefficient is 0.065 and the coefficient is positive, this indicates that risk perception has a negative influence and cannot encourage consumers' intention to use it. Based on this analysis, in this study the attitude variable is the variable that most influences the consumer's intention to use pay later services. From the results of the t test it can be seen that the variables of attitudes, subjective norms, and perceived behavioral control can encourage the intention to use consumers while the perceived risk variable cannot encourage the behavior of the intention to use consumers.

Model Fit

The F test showed a calculated F value of 84.544 with a significance of 0.000 < 0.05. From these results it can be interpreted that the variables tested, attitude variables, subjective norms, perceived behavioral control, and perceived risk have a significant influence simultaneously on the intention to use variable. The results of the model fit test showed an adjusted R² or R (correlation) value of 0.626 or 62.6% on attitude variables, subjective norms, perceived behavioral control, and perceived risk and their influence on intention to use. This means that attitudes, subjective norms, perceived behavioral control, and perceived risk have an influence on intention to use by 62.6% and the remaining 37.4% are influenced by factors other than attitudes, subjective norms, perceived behavioral control, and perceived risk.

Hypotheses testing

<table>
<thead>
<tr>
<th>Variable</th>
<th>Regression Coefficient</th>
<th>t Test</th>
<th>Significance</th>
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<tbody>
<tr>
<td>(Constant)</td>
<td>-2.602</td>
<td>-2.353</td>
<td>.020</td>
</tr>
<tr>
<td>Behavior</td>
<td>.510</td>
<td>5.671</td>
<td>.000</td>
</tr>
<tr>
<td>Subjective Norms</td>
<td>.232</td>
<td>5.173</td>
<td>.000</td>
</tr>
<tr>
<td>Perceived Behavioral Control</td>
<td>.299</td>
<td>6.789</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 1. t Test Results

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The Effect of Attitude on Intention to Use Paylater Services

This research results showed that through multiple regression analysis, there is a positive relationship between attitudes towards intention to use. These results show that if attitudes are high, consumer intentions for fintech and e-commerce are high. That is, the higher the consumer attitude, the higher the consumer's intention to use pay later services. These results indicate that the first hypothesis is accepted, namely "attitude has a positive effect on the intention to use pay later services".

The results of this study are in accordance with the theory put forward by Ajzen (1991) that attitudes have a high correlation with behavioral intentions and tend to lead to verbal responses and open actions. Therefore, the attitude of fintech and e-commerce consumers will influence the intention to use pay later services. The results of this study also support the results of research conducted by Niswah et.al. (2019); Hasyim et.al., (2021); Lin et al. (2021); Watmah et al. (2020) on the research object taken, namely financial technology, which states that attitudes have a positive effect on intention to use. In this study it was stated that the higher a person's attitude towards an online service, the higher consumer awareness of attitudes, the higher the value of the product or service as a whole, and the intention to use it will increase. The attitude that is applied to a service will influence someone in taking action on the service. Therefore, consumers can rely on themselves as one of the factors that can influence the intention to behave. The success of TPB for the attitude variable influences consumers to use products or services online.
The Effect of Subjective Norms on Intentions to Use Paylater Services

The results of this study indicated that there is a positive relationship between subjective norms and intention to use through multiple regression analysis. These results indicated that if the subjective norm is strong or the influence from outside the consumer in taking action is strong, the consumer intention of fintech and e-commerce is strong. That is, the stronger the influence from outside the consumer in taking action, the stronger the consumer's intention to use pay later services. These results indicated that the second hypothesis is accepted, namely "subjective norms have a positive effect on the intention to use pay later services".

The results of this study are in accordance with the theory put forward by Venkatesh, (2008) Social influence is also part of the subjective norm that is used as a factor in an acceptance of a technological model and the next stages of adaptation carried out by that person. Therefore, the attitude of fintech and e-commerce consumers will influence the intention to use pay later services. The results of this study also support the results of research conducted by Sodik et al. (2022); Niswah et al. (2019); Lin et al. (2021) with the object taken, namely the use of technology, states that subjective norms can affect a person's intention to use services. In this study it was stated that the stronger the suggestions of other people who had influence on him to use a service online, the stronger the intention to use fintech and e-commerce consumers and the more other people suggested using an online service, the consumer's awareness of the norm subjective also the higher, the higher the value of the product or service as a whole, and the intention to use will increase. Therefore, consumers can know that there are social influences that affect them in carrying out an action. The success of TPB for subjective norm variables motivates consumers to use products or services online.

The Effect of PBC on Intention to Use Paylater Services.

The results of this study indicated that through multiple regression analysis results show a positive relationship between PBC and intention to use. If the PBC is high, the consumer's intention to use will also increase. This explains that the higher the consumer's PBC, the higher the intention to use pay later services. These results indicated that the third hypothesis is accepted, namely "perceived behavioral control has a positive effect on intention to use".

The results of this study are in accordance with the theory put forward by Doll & Ajzen (1992) that PBC is very effective in determining and predicting someone's intentions when that person does not have total control over their behavior. The results of this study also support the results of research conducted by Hasyim &
Nurohman (2021); Sodik et al. (2022); Mazambani & Mutambara (2019) that PBC has a positive effect on intention to use. This means that in this study it is stated that the stronger the control of a person's behavior in taking action on a service online, the stronger the intention to use fintech and e-commerce consumers for pay later services. The success of TPB for perceived behavioral control variables motivates consumers to use products or services online.

**Effect of Perceived Risk on Intention to Use Paylater Services**

This study showed that through multiple regression analysis, there is a positive relationship between perceived risk and intention to use. The higher perception of risk, the higher consumer intentions of fintech and e-commerce, the higher intention to use paylater services too. It means that this study hypothesis is accepted, "attitude has a positive effect on the intention to use pay later services".

These results are in accordance with research conducted by Hasyim & Nurohman (2021); Sodik et al. (2022); Mazambani & Mutambara (2019), whose research is online services, which states that perceptions of risk have a positive effect on intentions. This research is also in accordance with the prospect theory, where an individual acts strangely. So that it can make respondents have a very high feeling of optimism. This shows that consumers are not careful in their intention to use pay later services, someone tends to be brave and does not have much consideration in taking an action. This can be possible because most of the respondents have a lot of experience.

**Conclusion**

Based on the results of this study, it can be concluded that all hypotheses in this study are accepted, they are attitudes, subjective norms, perceived behavioral control, and perceptions that have significant effects on the intention to use pay later services in financial technology and e-commerce. Theory of planned behavior and perceived risk of online services can be viewed as successful in increasing consumer intentions to use financial technology and e-commerce for pay later services. From this research, it can provide benefits to all companies, especially those that provide credit system services, to know the nature and character of consumers in taking action, the Indonesians can find out some of the factors that influence us in taking action on the intention to use pay later service.

Judging from the research results, there are other factors outside of the four independent variables in the study that can influence the intention to use consumers apart from the variable attitudes, subjective norms, perceived behavioral control and perceived risk. It can be credited by the stakeholders of companies engaged in the
financial technology and e-commerce industries to be more careful in giving approval to consumers who apply for a credit system. This research has limitations due to the first, online data collection and collection, where this study only took four variables. So the suggestions for further research, the researchers can involve other possible variables or use different methods for more in-depth analysis and discussion.

References


