

A Study on Behavioral Intentions: An Theory Planned Behavior Perspectives

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Abstract. Purpose: The development of financial technology is progressing, although with various pros and cons. Therefore, this study aims to examine the relationship between attitudes, subjective norms, and perceived behavioral control on behavioral intentions and behavior in the millennial generation in Indonesia.

Design/Methodology/Approach: A study with a survey approach with quantitative analysis techniques. Respondents in this study are individuals mobile phone users who make transactions to buy products/services and use digital payments in a business-to-consumer (B2C) context. The sampling method uses non-probability with purposive sampling technique. The data collected from surveys by distributing questionnaires, processed using partial least squares structural equation modeling (PLS-SEM) application program Warp-PLS version 6.0.

Findings: The results of the study show that attitude toward mobile payment, norm subjective, perceived behavioral control has significant effect on behavioral intentions and use behavior.

Originality/value: This paper integrates the theory planned behavior that transaction payments via digital payment services during the COVID-19 Pandemic and beyond are still needed to support valuable activities in everyday life, and are easy, safe and can be done from anywhere.

Keywords: Attitude toward mobile payment, norm subjective, perceived behavioral control, behavioral intentions, use behavior.

1. Introduction

The use of digital payment services that allow consumers to pay bills everywhere via mobile phones with mobile devices has become a new engine for the world economy [1-4]. Global digital payment services have reached US\$881 billion in 2019, and in January 2022 it has reached US\$4.92 trillion, with 44.5% of e-commerce transactions conducted by digital wallets in January 2022 [1]. Meanwhile, digital payment service users via cellular globally have reached 982 million in 2019 and will grow to 1.31 billion in 2023, accounting for 36% of smartphone users worldwide [1, 4], while digital payment service data in Indonesia currently divided into three categories. First, based on telecommunication companies there are my wallet, T-cash, Flexicash, Tunai from XL, and others; Second, based on the categories of banking companies, there are Mandiri e-cash, cellphone accounts, mega virtual, BBM Money, Sakuku from Bank BCA, while from start-up companies there are Go-Pay, OVO, Dana, Doku, PayPro, and PayAccess [5, 6].

Previous studies of scientists proved the significant role of attitudes towards certain objects, subjective norms, and perceived behavioral control in increasing Chen's behavioral intentions Chen [7], [8-11]. However, several studies show a gap in contradictory research findings, such as a study conducted by [12-17] which states that attitudes towards certain objects, subjective norms and perceptions of behavioral control have direct and indirect effects on behavioral intentions to use digital payment services. Inconsistent findings regarding attitudes towards certain objects, subjective norms and perceptions of behavioral control on behavioral intentions and use behavior lead us to raise research on "what processes should be developed to facilitate attitudes, subjective norms and perceptions of behavioral control in order to be able to increase behavioral intentions as described in the following section.

Considering the discrepancy of inconsistent research findings from the impact of attitudes towards objects, subjective norms, and perceptions of behavioral control on behavioral intentions, this study is directed to bridge the gaps in the findings of this study by adopting the theory of behavior change, namely the theory of planned behavior [18-20] which is abbreviated as TPB. The reasons for adopting the theory of planned behavior in this study include. First, the theory of planned behavior emphasizes a change in behavior, namely the intention to adopt technology in the form of digital payments in product/service purchase transactions that require a strong degree of attitude, subjective norms and perceptions of behavioral control and provide a total experience that makes a person believe in the digital payment system. Second, the massive use and utilization of digital payment services in Indonesia is more likely due to the influence of the Covid-19 Pandemic and physical distancing restrictions, thus "forcing" all individuals to make transactions with digital payments aimed at breaking the chain of Covid-19 spread and Third, technology adoption scientists have used various theories/models to study and predict the adoption of a technology using TPB and other theories/models. Among

these theories/models, research shows that TPB provides better understanding and prediction of variance in predicting behavioral intention to adopt technology [21].

The current study aims to bridging the gap in the findings of previous research in the literature by developing a conceptual model consisting of attitudes towards certain objects, subjective norms, subjective norms and perceptions of behavioral control on the behavioral intentions of digital payment service users. At a practical level, the main obstacle to behavioral intention to use digital payment services is because the internet network infrastructure is not evenly distributed in Indonesia. In the spirit of increasing behavioral intentions through the use of digital payment services as detailed in our model, we selected millennials in Indonesia to test our research model.

This study aims to bridge the gap in the findings of previous research by developing a conceptual model consisting of attitudes to objects, subjective norms, and perceptions of behavioral control on behavioral intentions of digital payment service users. On a practical level, the main obstacle to behavioral intention to use digital payment services is because the internet network infrastructure is not evenly distributed in the territory of Indonesia. Efforts to increase behavioral intentions can be done by offering security, ease of use, and speed in terms of conducting transactions as detailed in the model, we chose generation Y or millennial generation in Indonesia to test the research model.

This paper is structured with the following framework. First, is an introduction, gaps in the findings of previous research. Second, theoretical basis and model development to bridge the gap of previous research findings, model development and hypotheses. Third, research methods, such as population and samples, sampling methods and sample design techniques, measurement development, validity and reliability of the measurement scale; Fourth, statistical analysis and analysis results; and Fifth, results and discussion, implications, limitations and future research agenda, and conclusions.

2. Theoretical foundation and model development

The theoretical basis of this study adopts the theory of behavior change, namely the theory of planned behavior [18] which emphasizes the determinants of behavioral intentions. Fishbein and Ajzen [22], [23] suggest attitudes toward behavior or attitudes toward, salient beliefs or beliefs that are the strongest in one self connecting with behavior in obtaining positive or negative encouragement. In general, we individuals are motivated to act/ behave in certain ways that they believe in and can give negative results, namely adverse attitudes. A belief that becomes the basic motivation or driving force for individuals to act on such behavior is called behavioral beliefs [24, 25]. Another component that influences an individual's attitude towards behavior is the evaluation results based on the individual's perceived experience.

The second factor is subjective norm or subjective norm (SN) which functions as normative beliefs which are beliefs related to level as a form of support for people or preferences from the surrounding environment or certain parties related to approval to perform certain behaviors, such as parents, siblings or co-workers, and most of the important people around who inspire behavior/action [18, 26]. Furthermore, for the third factor, the perception of behavioral control or perceived behavior control (PBC) is based on control beliefs or beliefs related to control and perceived power or perceptions related to the strength/urge to perform certain behaviors [22, 27].

Based on the theory of behavior change, namely the theory of planned behavior [18, 28], it is revealed that the higher the degree of attitude towards an object, subjective norms and perceptions of behavioral control, the higher the degree of behavioral intention of an individual in performing behaviors that require consideration. behavior. Likewise, the higher the degree of behavioral intention, the higher the degree of user behavior [18, 20, 29].

Influence between attitudes towards digital payment services and behavioral intentions

The theory of behavior change, namely the theory of planned behavior, reveals three determinants of behavioral intentions, such as attitudes towards certain objects, subjective norms, and perceptions of behavioral control [12, 30-32]. The first factor is the attitude towards a particular object refers to the level of one's knowledge about the assessment of an individual that supports the behavioral intention under consideration [18, 33-35]. Based on the arguments and results of these various studies, it can be hypothesized that the higher the degree of attitude towards a particular object, the higher the degree of behavioral intention in digital payment services. Conversely, if the lower the degree of attitude towards digital payment services, the lower the behavioral intention of users of digital payment services. Therefore, the following hypothesis is proposed.

H₁: The higher the attitude of digital payment services, the higher the degree of behavioral intention

Influence between subjective norms of digital payment services and behavioral intentions

The second determinant determinant after attitude to behavior that drives individual behavioral intentions is subjective norm [31]. Subjective norm is a person's view of the beliefs of others that affect a person's behavioral intention to perform a considered behavior [36]. Subjective norms are interpreted as something that is perceived by individuals against social pressure to display a certain behavior [12, 37]. Based on the arguments and the

results of these various studies, it can be hypothesized that the higher the degree of subjective norm, the higher the degree of behavioral intention in digital payment services. On the other hand, the lower the subjective norm, the lower the behavioral intention of digital payment service users. Therefore, we put forward the following hypothesis.

**H₂: The higher the subjective norm of digital payment services, the higher the behavioral intention
Influence between perceived behavioral control of digital payment services and behavioral intentions**

The third antecedent that drives behavioral intentions based on the theory of behavior change is the theory of planned behavior, namely the perception of behavioral control indicates a condition of a person who perceives that the emergence/absence of a behavior that is considered in controlling the individual [18]. Perception of behavioral control is determined by a combination of individual beliefs (beliefs) regarding various things that can trigger behavior to be shown/performed by individuals of a certain behavior (control belief) [26, 27, 36, 38]. Individual perceptions of how high the degree of various things that can encourage behavior displayed a certain behavior (perceived power control) [31]. Perceptions of behavioral control relate to feelings of difficulty or ease in performing a particular behavior. Perception of behavioral control is an individual's belief about the presence or absence of sources, opportunities, obstacles, obstacles to perform a certain behavior [12]. Based on the arguments and results of these various studies, it can be hypothesized that the higher the perceived degree of behavioral control, the higher the degree of behavioral intention in digital payment services. On the other hand, the lower the perceived degree of behavioral control of digital payment services, the lower the behavioral intention of users of digital payment services. Therefore, the following hypothesis is proposed.

H₃: The higher the perceived degree of behavioral control of digital payment services, the higher the degree of behavioral intention

Influence between behavioral intentions of digital payment services and user behavior

The essence of behavioral change theory is that the theory of planned behavior is to predict and explain individual behavior [18, 26, 39]. Behavioral intentions are considered to precede behavior as the main determinant of the theoretical model of planned behavior, behavioral intentions are an intermediary for various factors that motivate individuals, so that they have an impact on the formation of certain behaviors [30, 40, 41]. Based on the arguments and results of these various studies, it can be hypothesized that the higher the degree of behavioral intention, the higher the degree of behavioral behavior in digital payment services. On the other hand, the lower the degree of behavioral intention on digital payment services, the lower the degree of user behavior on digital payment services. Therefore, the following hypothesis is proposed.

H₄: The higher the degree of behavioral intention of digital payment services, the higher the degree of behavioral intention

3. Research Method

Population and samples

We chose millennials in Indonesia to test our proposed model for several reasons. First, the digital payment service used by the millennial generation is very easy and dynamic because it is not bound by a strict protocol, so it is flexible in daily activities. Second, the information and knowledge of the millennial generation is very complete and at their age they are very fond of new technology, so that the use of identified digital payment services is very successful, and the cost of adopting this technology is relatively cheap. The population of this research is based on non-probability sampling method with a sampling technique using purposive sampling technique. To determine the sample, we refer to studies [42-45] which state that for the structural equation model-Partial Least Square (PLS) or shortened to PLS-SEM. The current research is based on a practical sample of 500 people from the millennial generation of digital payment service users who we invited to participate in our research. Data collection was carried out through a structured direct interview process and through a google form. We interviewed millennial generations of digital payment service users using a questionnaire and then assessed their responses directly to the questionnaire answer sheet.

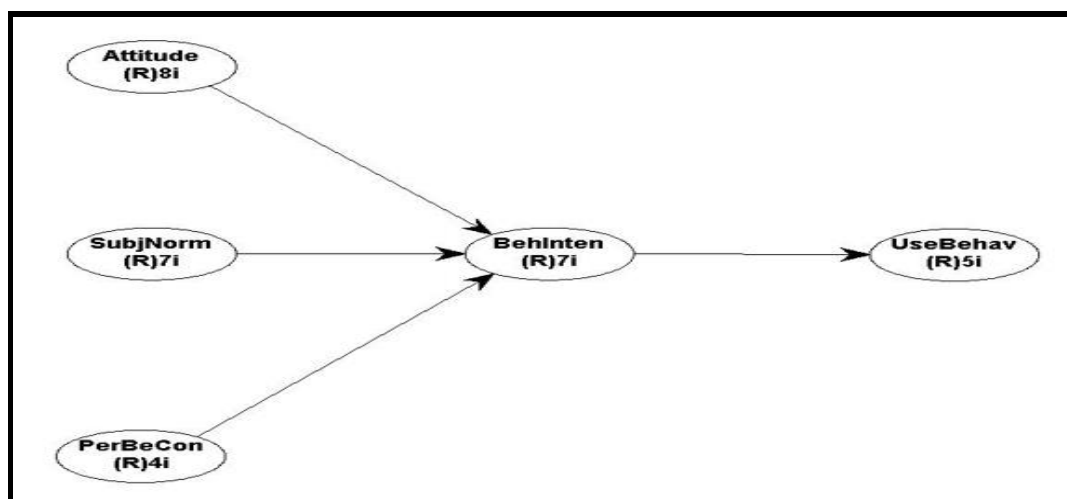


Figure 1. Structural model

Development of measures

To obtain interval data, we developed a research scale using the anchoring technique proposed by Nunnally and Bernstein [46]. In order to easily capture respondents' opinions about our research, a type of Likert scale was developed, which links the responses between points 1 and 7. Attitudes towards digital payment services were measured using an 8-item scale based on [47-49]. Subjective norm is a 7-item scale developed and inspired by [12, 50]. The scale to measure perceived behavioral control was measured using 4 items [12, 50]. The scale for measuring behavioral intention with 7 items was adapted from [15, 48, 49], and user behavior 5 items was adapted from the scale [15, 48]. The final scale items are presented in Table 1.

Validity and reliability of the measurement scales

Convergent validity is used to test whether the indicators used have measured the construct or accurately. Convergent validity measures the consistency of loading factors in various operationalizations tested using two criteria, namely (1) each item has a statistically significant loading factor value on its construct, in this case the cut-off value > 0.70 or 0.50-0.60 in the development stage or a new concept; (2) each construct has an Average Variance Extract (AVE) value above 0.50 [51]. This means that the latent variables in this study all meet the criteria for convergent validity. In this study, there are no vertical or lateral collinearity problems in the model. This is indicated by a decent Average Full Collinearity Variance Inflation Factors (AFVIF) value, which is <3.3. To measure the reliability of our construction, we adopted the construction reliability index [52] with cut-off value of 0.70, resulting in an attitude towards digital payment services of 0.936, subjective norm of 0.943, perceived behavior control of 0.926, behavioral intention of 0.929, and user behavior of 0.923. , as presented in Table 1.

Table1. Convergent Validity and Internal Consistency Reliability

Variable	Coding items/Indicators	Outer Loading	AVE	Composite Reliability	VIF	Cronbach á
Attitude towards digital payment services	STPP1	0.836	0.832	0.947	4,799	0.936
	STPP2	0.891				
	STPP3	0.906				
	STPP4	0.883				
	STPP5	0.787				
	STPP6	0.740				
	STPP7	0.814				
	STPP8	0.785				
Subjective norms	NS1	0.861	0.863	0.953	3,327	0.934
	NS2	0.857				
	NS3	0.820				
	NS4	0.899				

	NS5	0.867				
	NS6	0.888				
	NS7	0.846				
Behavioral control perception	PPP1	0.891	0.905	0.947	5,132	0.926
	PPP2	0.906				
	PPP3	0.927				
	PPP4	0.894				
Behavioral intention	NP1	0.868	0.839	0.943	5,324	0.929
	NP2	0.857				
	NP3	0.831				
	NP4	0.875				
	NP5	0.712				
	NP6	0.875				
	NP7	0.842				
Use behavior	PP1	0.858	0.874	0.942	3,729	0.923
	PP2	0.897				
	PP3	0.878				
	PP4	0.872				
	PP5	0.865				

Source: Processed primary data (2022)

4. Results of Analysis and Discussion

Warp-PLS version 6.0 software was used to test the proposed model to obtain the results of testing our models and hypotheses. To test the proposed model and hypotheses, statistical analysis was carried out using Partial Least Square structural equation modeling (PLS-SEM).

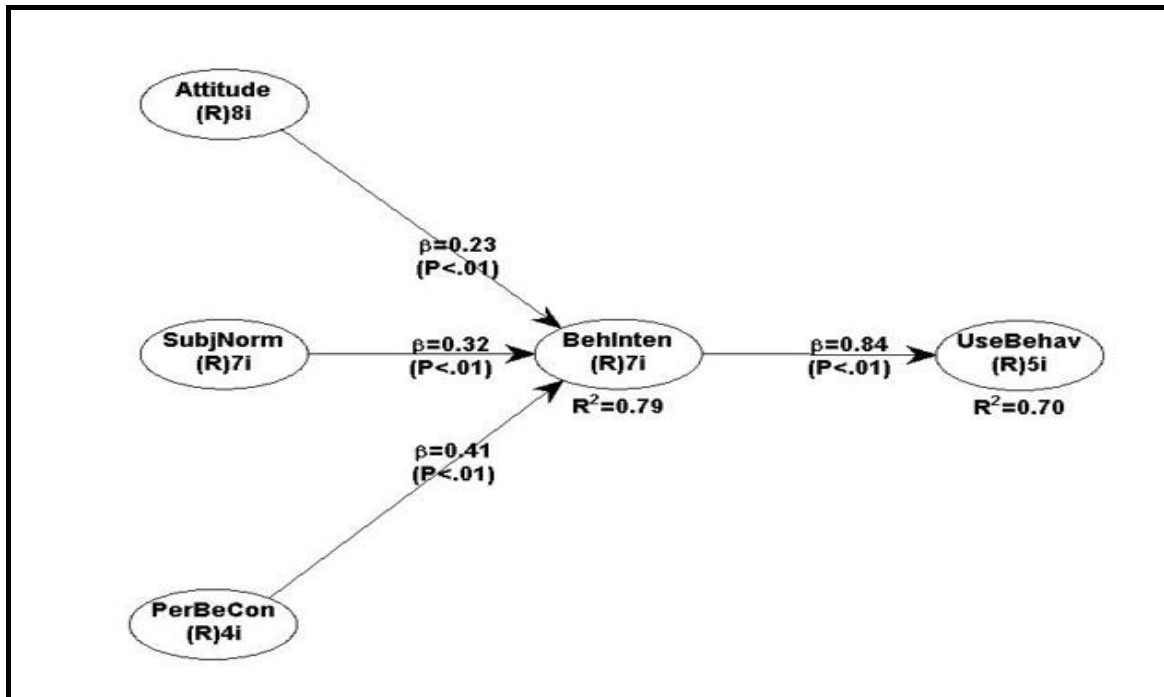


Figure 2. Full structural model

Note: Average path coefficient (APC) = 0.447, $P<0.001$; Average R-squared (ARS) = 0.743, $P<0.001$; Average adjusted R-squared (AARS) = 0.742, $P<0.001$; Average block VIF (AVIF) = 3.730, acceptable if ≤ 5 ; Average full collinearity VIF (AFVIF) = 4.462, acceptable if ≤ 5 ; Tenenhaus GoF (GoF) = 0.744;

Sympson's paradox ratio (SPR) =1.000,; R-squared contribution ratio (RSCR) =1.000; Statistical suppression ratio (SSR) = 1.000; dan Non-linear bivariate causality direction ratio (NLBCDR) =1.000.

Based on Figure 2, it can be seen that the results of the full model analysis test are all influences between the independent variables and the dependent variable which are hypothesized to show a positive effect between attitudes towards digital payment services, subjective norms, and perceptions of behavioral control have a positive effect on behavioral intentions, resulting in the magnitude of attitudes towards services. digital payment value = 0.023 with a significance level of 0.01, subjective norm coefficient value = 0.32 with a significance of 0.01, perceived behavioral control coefficient =0.41, with a significance of 0.01, and behavioral intentions coefficient value =0.84, with a significance of 0.01 , and behavioral intentions towards user behavior of 0.923, with a coefficient of 0.01. Based on the explanation of the results of the analysis, H₁, H₂, H₃ and H₄ are supported, as presented in Figure 2. Furthermore, based on the results of the explanation and description of the results and discussion, the results of hypothesis testing can be summarized as presented in Table 2.

Table2. Hypothesis testing results

Hypothesis	Influence	Path Coefficients	Standard error	p-value	Conclusion
H ₁	Attitude towards digital payment services →behavioral intention	0.192	0.032	<0.001	Accepted
H ₂	Subjective norms→behavioral intention	0.266	0.031	<0.001	Accepted
H ₃	Peceived behavioral control →behavioral intention	0.339	0.031	<0.001	Accepted
H ₄	Behavioral intention→use behavior	0.835	0.041	<0.001	Accepted

Source: Processed primary data (2022)

Based on the results of the analysis obtained information that the R-square coefficient is 0.778, indicating that the behavioral intention variable can be explained by 77.8% by variations in attitude variables, subjective norms, and perceptions of behavioral control. Meanwhile, the R-square coefficient is 0.698, indicating that the user behavior variable can be explained at 69.8%.

5. Discussion

The findings of this study contribute to knowledge about the theoretical implications of behavior change, namely the theory of planned behavior for digital payment services. The first implication, the concept of planned behavior theory is rooted in [20] increasing the degree of user behavior that attitudes towards digital payment services, subjective norms and perceived behavioral control perceived behavioral intentions of digital payment service users are positive. Our findings show that attitudes towards digital payment services, subjective norms and perceived behavioral control as perceived behavioral intentions of users of digital-based payment services, which are usually the core of behavioral change in the use of digital payment services to support easier financial transactions, access to widely available funding, supporting financial inclusion, as well as accelerating broad economic turnover in Indonesia during the COVID-19 pandemic.

Research implications

The findings of this study contribute to knowledge about the theoretical implications of the application of behavior change theory, namely the theory of planned behavior in the context of digital payment services. The first implication, the concept of planned behavior theory is rooted in [18, 26] reinforcing behavioral changes that are attitudes, subjective norms and behavioral intentions on digital payment services perceived by millennials. Our findings show that attitudes, subjective norms and behavioral intentions in digital payment services, which are usually the core of competition between parties who provide services through shared value creation can be applied in the management of companies such as bank or other companies engaged in the financial services business need to understand the process of change. consumer behavior in the form of a process that echoes the totality of the service value. The concept of behavior change theory, namely the theory of planned behavior, contributes to the disposition of digital payment service managers to continue to maintain interaction and attachment with customers at a simple level. So far, digital payment service managers have been trying to

provide value-added payment services to users as a result of the value creation process for digital payment service users, as part of value articulation is the key to success. Perceived value to strengthen the service value delivery process This is a concrete answer to how digital payment service businesses adopt the philosophy of behavior change theory, namely the theory of planned behavior to increase behavioral intentions, even the behavior of digital payment service users.

Research limitations and future research

Further research can be directed to explain how to manage the process of attitude, subjective norm, and perceived behavioral control to increase purchase intention and behavior of users of digital payment services. The study of attitudes, subjective norms, and perceived behavioral control presented in this paper is preliminary; further developments such as the dimensionalization of attitude constructs, subjective norms, and perceptions of behavioral control which are perceived as instruments in soft consumer behavior to increase behavioral intentions and behavior of digital payment services. This study only covers a sample frame of digital payment services in Indonesia; Therefore, the concept of attitude, subjective norm, and perceived behavioral control do not have generalization power to increase behavioral intention and behavior of users of digital payment services. Replication of the study of attitudes, subjective norms, and perceptions of behavioral control to increase behavioral intentions and behavior of users of payment services opens a place for research to reach broader generalizations.

6. Conclusions

The main focus of this research is to find out and develop models of attitudes, subjective norms, and perceptions of behavioral control to increase the behavioral intention and behavior of users of perceived service value payments. This empirical study assessed four research hypotheses and found some interesting results. First, attitudes, subjective norms, and perceptions of behavioral control have a positive effect on behavioral intentions, as well as behavioral intentions have a positive effect on the behavior of users of digital payment services; Both of the 4 proposed hypotheses, H1, H2, H3, and H4 were supported; Third, the theory of behavior change, namely the theory of planned behavior, states that consumers prefer services that are of value and support digital payment activities.

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