

# Effects of Subjective Norms, Perceived Behavioral Control, Perceived Risk, and Perceived Usefulness towards Intention to Use Credit Cards in Surabaya, Indonesia

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**Abstract.** Credit cards are becoming one of the most-used method of payment, both domestic and overseas. Consumers need not hassle with carrying cash to pay, hence reducing the risk of losing your money. Credit cards however, have their own drawback as it can be hacked, resulting in the breach of personal information by a third party, and abusing it to make transactions unknown to the card owner. This phenomenon is still in debate among credit card holders. As such, the purpose of this study is to test the effects of subjective norms, perceived behavioral control, perceived risk, and perceived usefulness towards the intention to use credit cards. Psychological factor and risk level becomes a challenge to card holders when they are making a transaction. Purposive sampling technique is used to gather data through questionnaire spread in both hardcopy and online to 100 credit card owners in Surabaya. Data is then processed using Partial Least Square (PLS). Analyzation result shows subjective norms, perceived behavioral control, and perceived usefulness significantly affects the intention to use credit cards, while perceived risk does not. The result of this study shows that by fully understanding both the advantages and disadvantages of credit cards, consumers can use it to make better financial planning, and not making transactions that leads to a certain lifestyle.

**Keywords:** Subjective norms, perceived behavioral control, perceived risk, perceived usefulness, intention to use credit cards.

## 1 Introduction

Credit card is a cashless form of payment and/or electronic instrument in the form of a plastic card that is practical, easy, and fast in its usage, so it helps someone to pay, accelerates transaction, and as a source of fund [1]. Susanto [2] stated that credit cards can be used as either a good financial planning tool, or a bad one. Convenience is one of the leading factors as to why people use credit cards, as it can be used anytime at anyplace, and consumers do not need to carry cash when they go shopping in retail stores in shopping malls. Credit cards help consumers control their spending through bills that they receive

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monthly, so they can evaluate transactions they completed. Consumers can also utilize credit cards for emergency needs, when they do not carry cash to pay for hospital bills, for example. Given facilities such as the 0 % interest rate makes it easy for consumers to pay for transactions, as they can prioritize and allocate current funds to more pressing needs.

On the contrary, credit cards can also cause loss or even bankruptcy due to credit card debts [2]. Consumers are vulnerable to making repeated transactions, going on a shopping spree without proper consideration. Consumers will be tangled up in high interest if they do not pay credit card bills fully and on-time. The interest will continue to accumulate, and if ignored will further cause difficulties to be settled. Other risks include security risks such as breach of personal information that might result in misuse of credit cards, causing financial loss to the consumer [3]. The use of credit cards involves psychological factors which dictates individual's behavior as well as consideration of the risks consumers are faced with, which affect the intention to use credit cards.

One of the behaviors in credit cards users, firstly, is subjective norms which is the social pressure affecting a person's behavior [4]. According to Quan & Nam [5] social pressure can come from parents, colleagues, and media. Social pressure affects a person's intention to use credit cards, because of the various facilities credit cards provide. An individual might feel the need to have credit cards only so that they can interact with various communities [6]. Secondly, perceived behavioral control is the perception of the simplicity of difficulty faced in behaving and assumed as the reflection of past experiences and anticipation of obstacles [4]. Lack of understanding or minimal information affects the use of credit cards [7]. The third is perceived risk, translated as a person's perception of the uncertainty and negative consequences faced if there is a purchase of a product or service [8, 9]. Perceived risk has a strong effect on the intention to use electronic transaction devices [10]. The last is perceived usefulness, which is the level of trust a person has in using a certain system to increase the performance of his work [11].

Study regarding credit cards is done throughout Surabaya, Indonesia as the second-largest metropolitan city after Jakarta. The uniqueness of this study is that it combines behavioral factors and technology systems with credit card owners and users. The purpose of this study is to test the effect of subjective norms, perceived behavioral control, perceived risk, and perceived usefulness on the intention to use credit cards. The benefit of this study to credit card users is that they can use their credit card financial facilities wisely to achieve their intended goals. Furthermore, credit card issuers need to educate credit card users so that they understand their credit card rights and obligations, so credit card users' financial behavior is wise.

## **2 Literature review**

Personal finance is seen as the application of financial principles, resource management, consumer education, sociology and decision-making psychology to learn how individuals, families, and households acquire, develop, and allocate monetary resources to meet current and future financial needs [12]. Kapoor et al., [13] state that personal financial planning is the process of managing finances to achieve economic satisfaction. This planning allows one to control his financial situation. Comprehensive financial planning can improve a person's quality of life and satisfaction by reducing uncertainty about future needs and resources. One of the tools that can be utilized for financial planning is a credit card. Credit cards are a payment tool for current transactions, but payments are made some time after the charge is issued. Credit card holders may act either wise or unwise related to the transactions. The behavior of credit card holders is influenced by psychological factors. Quan & Nam's [5] study in Vietnam states that subjective norms, perceived behavioral control, perceived risk, and perceived usefulness influence credit card usage intentions.

## **2.1 Effect of subjective norms towards intention to use credit cards**

Hayhoe et al.,[6] state that a person has a credit card because the product is known, often talked about, and often used in socializing with the public. Hilgert et al., [14] state that other references which affect learning and socialization for young people from birth to adult, include parents, schoolmates, peers and the media. These subjects influence individuals to make financial decisions including the use of credit cards. Subjective norms lead to the degree to which a person feels that the person who is important to them (family and friends) believes he or she should use a credit card [15] while other references refer to family, friends, co-workers, bankers, advertising media and promotions affect the intent of using a credit card [16, 5].

H<sub>1</sub>: Subjective norms significantly affect the intention to use credit cards.

## **2.2 Effect of perceived behavioral control towards the intention to use credit cards**

The main reason for using a credit card is to make payments easier [17] because people are accustomed to the practical lifestyle, easy acceptance procedures at various retail outlets [18, 19], as well as an alternative to transactions involving cash [20]. According to Kennedy [21] and Bousnina & Ettis [22], perceived behavioral control has a significant effect to intention to use credit cards, including the knowledge someone has. But the use and payment of credit cards are out of control [22], so consumers use them by emotion only and without any considerations. Poor understanding or low information also affects credit card usage [7]. People with high perceived behavioral control are more likely to have low credit card bills [21]. Even [23] found that high perceived behavioral control had no significant effect on the use of electronic transaction tools.

H<sub>2</sub>: Perceived behavioral control significantly affects the intention to use credit cards.

## **2.3 Effect of perceived risk towards the intention to use credit cards**

According to Lee & Cata [1] electronic payments in this era have become so important that banks issued credit cards as electronic payment instruments. Credit cards became a favorite and profitable payment tool. However, the risk of failure and security is also one of the consumer's considerations when using it, such as the inability to pay the bills on time [24] and the accessibility of electronic services involving cybercrime issues [5]. Forsythe [25] states that the misuse of credit card information is a serious concern for consumers, due to the potential of financial losses. The risk of such a loss makes the user reluctant to share credit card-related information to others, thus slowing down the user in online transactions [26] ), as well as the concern of the item not shipped after payment, future financial losses, and the fear of personal information not kept secret [27]. Individuals with high perceived risk tend to use credit cards more carefully and fully consider the consequences and risks involved in purchasing decisions [28].

H<sub>3</sub>: Perceived risk significantly affects the intention to use credit cards.

## **2.4 Effect of perceived usefulness towards the intention to use credit cards**

According to Abdul-Muhmin & Umar [18], convenience is one of the factors that causes a person to use credit cards. Credit cards are not only a cash and check replacement, but also

a source of credit [19]. Perceived usefulness has a significant impact on the intention of using credit cards [5], as it saves time, helps with job completion, benefits [15] and helps manage finance efficiently [29]. According to Davis [11], perceived usefulness is the level of individual's faith to use certain systems to improve their job performance. Perceived usefulness causes the use of credit cards to be more and more frequent, as the individual has experienced the benefits of using credit cards [30].

H<sub>4</sub>: Perceived usefulness significantly affects the intention to use credit cards.

### 3 Research method

This study is an associative study, meaning it tests the effects of subjective norms, perceived behavioral control, perceived risk, and perceived usefulness towards the intention of using credit cards. The population of this study is the main credit card holders and users in Surabaya with characteristics according to OJK rules based on (SEBI No.14/17/DASP point VII.B paragraph (2) a and b) which is at least 21 yr old or married, and has a fixed income of at least IDR 3 000 000 per month. The technique of sample extraction is done incidentally, which is to the person that the researcher can accidentally meet and is suitable to sample requirement. Research variables listed in Table 1 were measured using likert scale of 1 to 5, which is, 1 = strongly disagree, 2 = disagree, 3 = fairly agree, 4 = agree, 5 = strongly agree. Analysis of data gathered used Structural Equation Modelling (SEM) PLS using path diagram on variables studied.

**Table 1.** Variables, operational definition, and empiric indicator

Concept	Operational Definition	Empiric Indicator
Intention to use Credit Cards (NPKK)	Interest followed by happiness or satisfaction, along with numerous factors which motivate individuals to shop using credit cards.	Frequency of credit card usage, such as payment needs, purchase transactions, control bill payment, pay daily expenses, purchases from online vendors, intention to make minimum bill payments, late payment delays [21, 22, 31].
Perceived Behavioral Control (PBC)	Perceptions of the ease or difficulty experienced by individuals in using credit cards, reflecting on past experiences, anticipating obstacles.	Individual's internal factor in using credit card: self-control, ability to pay the bills, under control. And the individual's external factor in using credit cards that requires knowledge [22, 21].
Perceived Risk (PRK)	Individual's perception of the uncertainty and possible negative consequences of purchasing a product of service using credit cards.	Individual's concerns using credit cards: Goods not delivered after online transactions, credit card security, personal information security, future financial losses, liability for transactions not made, overdue payment of bills [27, 24].
Perceived Usefulness (PUS)	Individual's level of faith in using credit cards to gain benefits and improve job performance.	Work efficiency, productivity and time-saving, and the importance of credit cards to individual's work: help complete tasks, increase productivity, can be done anywhere and anytime, gain benefits, facilitate payment transactions, saves time, and efficiently manages finance [11, 15, 32, 33, 29].
Subjective Norms (SNS)	A person's perception by social pressure that influences him regarding the use of credit cards.	Normative belief and individual motivation to use credit cards influenced by family, parents, siblings, friends, and public [15, 22].

### 4 Analysis and discussion

This study involved 100 respondents of main credit card users and owners in Surabaya according to the rules of OJK. An overview of respondents is listed in Table 2.

**Table 2.** Respondents' characteristics

Description	Gender		Number	Percentage
	Male	Female		
<b>Age</b>				
≤ 25 yr old	0	7	7	7 %
> 25 yr old to 35 yr old	19	24	43	43 %
> 35 yr old to 45 yr old	11	17	28	28 %
> 45 yr old	10	12	22	22 %
<b>Status</b>				
Unmarried	16	24	40	40 %
Married	24	36	60	60 %
<b>Highest Education</b>				
High school	1	5	6	6 %
Diploma	7	7	14	14 %
Undergraduate	28	37	65	65 %
Graduate	4	11	15	15 %
<b>Income per month</b>				
≤ IDR 3 800 000	0	7	7	7 %
> IDR 3 800 000 to IDR 8 000 000	22	25	47	47 %
> IDR 8 000 000 to IDR 12 000 000	8	21	29	29 %
> IDR 12 000 000 to IDR 20 000 000	6	4	10	10 %
> IDR 20 000 000	4	3	7	7 %
<b>Occupation</b>				
Civil servant	3	3	6	6 %
Private employee	15	20	35	35 %
Self-employed	14	26	40	40 %
Professional	8	11	19	19 %

Demographic of respondents show that 60 % of respondents are female, most are less than 25 yr old to 35 yr old (43 %), 60 % are married. Their education 65 % are undergraduates. 47 % of respondents have an income of > IDR 3 800 000 to IDR 8 000 000, and 40 % are self-employed.

After description test, data is then validity and reliability tested using SEM-PLS. The first step is by doing a convergent validity test, where indicators SNS5 (0.331), NPKK4 (0.459), NPKK5 (0.392), NPKK6 (0.405) do not meet the requirements, as their loading factor value is less than 0.5, and as a result those indicators are excluded from the analysis and running data is done to them again to meet the requirements. According to the second test, the loading value of each indicator is greater than 0.5. Variable indicators have qualified convergent validity requirement according to table cross loading.

**Table 3.** Cross loading

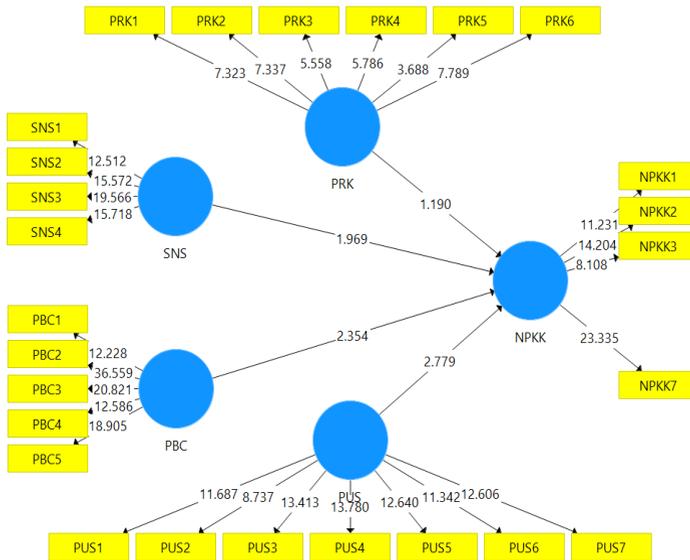
Indicator	Variable				
	NPKK	PBC	PRK	PUS	SNS
NPKK1	<b>0.713</b>	0.485	0.182	0.379	0.377
NPKK2	<b>0.738</b>	0.455	0.302	0.430	0.481
NPKK3	<b>0.734</b>	0.422	0.133	0.531	0.524
NPKK7	<b>0.807</b>	0.515	0.293	0.535	0.544
PBC1	0.468	<b>0.809</b>	0.300	0.508	0.626
PBC2	0.583	<b>0.864</b>	0.262	0.552	0.608
PBC3	0.543	<b>0.793</b>	0.208	0.391	0.479
PBC4	0.364	<b>0.776</b>	0.204	0.477	0.514
PBC5	0.514	<b>0.786</b>	0.216	0.454	0.588
PRK1	0.280	0.368	<b>0.851</b>	0.235	0.362
PRK2	0.292	0.259	<b>0.827</b>	0.165	0.207
PRK3	0.104	0.119	<b>0.732</b>	0.134	0.112
PRK4	0.166	0.083	<b>0.761</b>	0.160	0.174
PRK5	-0.021	0.016	<b>0.667</b>	0.042	0.099
PRK6	0.261	0.218	<b>0.827</b>	0.242	0.295
PUS1	0.429	0.48	0.186	<b>0.750</b>	0.519
PUS2	0.407	0.378	0.201	<b>0.677</b>	0.465
PUS3	0.582	0.441	0.216	<b>0.723</b>	0.406
PUS4	0.377	0.487	0.276	<b>0.758</b>	0.508
PUS5	0.425	0.358	0.227	<b>0.697</b>	0.314
PUS6	0.386	0.359	0.044	<b>0.706</b>	0.295
PUS7	0.491	0.439	0.078	<b>0.698</b>	0.396
SNS1	0.476	0.709	0.318	0.553	<b>0.774</b>
SNS2	0.582	0.455	0.245	0.420	<b>0.819</b>
SNS3	0.533	0.544	0.214	0.472	<b>0.837</b>
SNS4	0.518	0.598	0.255	0.457	<b>0.828</b>

Table 4 shows Average Variance Extracted (AVE) value of each variable is greater than 0.5, thus qualifying for the discriminant validity test. Cronbach's Alpha and Composite Reliability of each variable is greater than 0.7, meaning all the variables meet the reliability requirement.

**Table 4.** AVE, Cronbach's Alpha, composite reliability, R-Square

Variable	AVE	Cronbach's Alpha	Composite Reliability
Intention to use Credit Cards	0.561	0.739	0.836
Perceived Behavioral Control	0.650	0.867	0.903
Perceived Risk	0.609	0.884	0.903
Perceived Usefulness	0.513	0.842	0.880
Subjective Norms	0.664	0.832	0.888
R-Square		0.547	

R-Square value of 0.547 means the subjective norms, perceived behavioral control, perceived risk, and perceived usefulness affects the intention to use credit cards by 54.7 %, while 45.3 % is explained by other variables outside of the research model.



**Fig. 1.** Structural model output

Model equation is as follows:

$$\eta = 0.296SNS + 0.208PBC + 0.073PRK + 0.321PUS + \zeta \tag{1}$$

Description:

- SNS = Subjective Norms
- PUS = Perceived Usefulness
- PBC = Perceived Behavioral Control
- PRK = Perceived Risk
- NPKK = Intention to use Credit Cards

Original sample coefficient table and t-statistics in Table 5 shows variables perceived behavioral control, perceived usefulness, and subjective norms significantly affects the intention to use credit cards, as t-statistics value is greater than 1.96, but not perceived risk as its t-statistics value is less than 1.96.

**Table 5.** Structural model testing coefficient

Variable	Original Sample (O)	t-statistics (O/STDEV)	Description	
			Hypotheses	Decision
PBC -> NPKK	0.208	2.354	Reject H <sub>0</sub>	Significant
PRK -> NPKK	0.073	1.190	Accept H <sub>0</sub>	Insignificant
PUS -> NPKK	0.321	2.779	Reject H <sub>0</sub>	Significant
SNS -> NPKK	0.296	1.969	Reject H <sub>0</sub>	Significant

#### **4.1 Effect of subjective norms towards the intention to use credit cards**

Subjective norms significantly affects the intention to use credit cards. Social pressure from the people who are important to the respondents have a significant influence. Social pressure from normative belief and motivation, which is the support of key people who approve or disapprove of credit card usage. Respondents tend to agree to using credit cards due to the good influence of family, parents, relatives, and friends. The biggest influence comes from parents, because they often see parents use credit cards and parents are the most trusted party to them. Hilgert et al., [14] state that parents are a reference that influences young people's learning and socialization from birth to adulthood. The results of this study are in line with Nguyen & Cassidy's [15] study that state subjective norms have a significant impact on intention to use credit cards.

#### **4.2 Effect of perceived behavioral control towards the intention to use credit cards**

Perceived behavioral control has a significant effect on the intention to use credit cards. Respondents are likely to have control over whether or not to pay off their credit card debt. The majority of respondents' profiles are undergraduates, so they tend to be more cautious about using credit cards based on their knowledge and self-control. Sari & Dirgahayu [23] state that individuals with perceived behavioral control have self-control, thus making financially sound decisions in their transactions. This study is consistent with Bousnina & Ettis [22] who found that perceived behavioral control significantly affects the intention of using a credit card as a payment tool.

#### **4.3 Effect of perceived risk towards the intention to use credit cards**

Perceived risk has no significant effect to the intention to use credit cards. Every individual has different perceptions, resulting in different attitudes. They have concerns but still consider whether to take actions they believe are risky or not. Respondents are concerned about credit card security, especially when making online payments. However, these concerns do not invalidate respondents' intention to use a credit card, even as an online payment tool. This indicates that despite the many risks arising from the use of credit cards, users cannot deny the huge role and benefits of credit cards. The results of this study are contrary to previous studies by Quan & Nam [5] which state that perceived risk has a significant impact on credit card usage intention.

#### **4.4 Effect of perceived usefulness towards the intention to use credit cards**

Perceived usefulness significantly affect the intention to use credit cards. The majority of respondents are undergraduates and self-employed, so credit card usage is frequent and is expected to help them complete their work, improve their productivity and manage their finances more efficiently. Other benefits of credit cards are that they are easy to use anywhere and anytime, saves time, and make transactions easy. Credit cards are helpful not only in work, but also in other aspects such as billing payment tool that is more structured, and prioritizing the items that will be consumed. This study is in line with the study of Nguyen & Cassidy [15] who found that perceived usefulness significantly affects the intention to use credit cards.

## 5 Conclusion and suggestion

This study proves that subjective norms, perceived behavioral control, and perceived usefulness significantly affect the intention to use credit cards, but perceived risk does not. Psychological factor of owners and users of credit cards affects their intention as well. Risks that come along with credit cards remain a concern to them although it doesn't significantly affect their intention. It is recommended that credit card users and owners not only listen to the references but also adjust with their financial condition to create a healthy financial behavior. Always be careful when using credit cards, rather than using it emotionally or tempted by discounts and rewards. Respondents who are not yet well aware of his rights and obligations as credit card owners should improve their knowledge, to avoid credit card debts. It is not easy to provide personal information to other parties especially when making transactions online, and the least they can do is check the e-commerce before making a transaction.

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