European Economic Letters
ISSN 2323-5233
Vol 15, Issue 2 (2025)
http://eelet.org.uk

A Study on factors affecting customers intention to use credit card in India.

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Abstract:
This study aims to develop a theoretical model of consumer behavioral intention by integrating the Technology Acceptance Model (TAM) with the Theory of Perceived Risk, focusing on the intention to use credit cards in India. Data were collected from 250 bank customers through a nationwide online survey. The results indicate that perceived risk, perceived usefulness, social influence, and perceived ease of use significantly influence consumers' intention to use credit cards. Among these factors, only perceived risk negatively affected the intention to use, encompassing psychological, financial, performance, privacy, time, social, and security risk. The study assessed first-order dimensions of perceived risk based solely on the payment function of credit cards, overlooking potential risks associated with their credit function. The findings can assist banks in formulating strategies to attract new customers and allocate resources effectively for customer retention and expansion.

1. Introduction

Credit cards, which combine the functions of a payment and personal credit, have become a widely used financial tool across the globe. Originating in 1951 when Franklin National Bank in New York issued the first credit cards, their popularity has grown rapidly. As consumer demand outpaced banks' capacity to manage credit card operations, international credit card organizations emerged. Today, six major brands—American Express, Diners Club, Japan Credit Bureau, Visa, MasterCard, and UnionPay—dominate the market. Banks affiliate with these institutions under license to issue and acquire credit cards. To expand their market share, banks aggressively promote credit card use among both new and existing customers, especially for everyday transactions.

This growth has spurred significant academic interest in understanding consumer behavior toward credit card usage. Prior research primarily emphasizes the influence of demographic factors, card attributes, and individual perceptions. Studies have shown that demographics such as age, gender, occupation, and financial status significantly affect the intention to use credit cards (Dewri et al., 2016; Foscht et al., 2010; Porto & Xiao, 2019). Others have highlighted that the relative advantages of credit cards over alternative payment methods—like cash, e-money, or debit cards—also drive their usage (Chahal et al., 2014; Ooi & Tan, 2016; Qureshi et al., 2018).

Assuming rational behavior (Fishbein & Ajzen, 1975), some scholars argue that consumers choose credit cards for their ability to effectively manage daily expenses (Porto & Xiao, 2019; Tan et al., 2014; Trinh & Vuong, 2017). Social influence has also been noted, with family, friends, and colleagues significantly affecting consumers' intentions (Ali et al., 2017; Amin, 2013; Tan et al., 2014; Varaprasad et al., 2013).

However, consumers also weigh potential losses. According to Fishbein and Ajzen (1975) and Mitchell (1999), rational consumers consider both benefits and risks. Perceived risk has been widely recognized as a barrier to the adoption of e-services (Roy et al., 2017; Yang et al., 2015) and is similarly relevant to credit card usage intentions. Yet, findings have been inconsistent: some studies report a negative impact (Nguyen & Cassidy, 2018), others a positive effect (Varaprasad et al., 2013), and still others find no significant relationship (Tan et al., 2014; Tseng, 2016).

As the credit card market grows more competitive, a deeper understanding of consumer behavior—especially the role of perceived risk—is essential for financial institutions. Unlike previous studies, this research specifically explores the impact of multifaceted perceived risk on the intention to use credit cards. The study begins with a theoretical framework and hypotheses, followed by methodology and data analysis. The findings are then discussed, leading to conclusions and directions for future research.

2. Literature Review and Proposed Theoretical Model

Over time, numerous research frameworks have been developed to understand consumer behavior, particularly the gap between intended and actual behaviors. A central theory in this area is the Theory of Perceived Risk (TPR), first proposed by Bauer (1960). TPR emphasizes how consumer decisions are heavily influenced by their concern over potential losses in a specific purchase context. However, consumers are not only risk-averse but also rational decision-makers. They are more likely to engage in behaviors that they perceive as useful, easy to perform, or influenced by external factors. These elements are rooted in other well-established theories, such as the Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975), Technology Acceptance Model (TAM) (Davis et al., 1989), Theory of Planned Behavior (TPB) (Ajzen, 1991), and the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003). These theories have been applied independently or in combination in various studies focusing on consumer intentions to use e-services (Alalwan et al., 2017; Liu et al., 2019; Pelaez et al., 2019; Tam & Oliveira, 2017).

A credit card is a technological product used via electronic devices with two primary functions: payment and credit (Foscht et al., 2010). It allows cardholders to make purchases now and pay later, based on an agreement with the issuing bank (Amin, 2013). The bank covers the cardholder's payments, while the cardholder is responsible for paying back in full and on time (Foscht et al., 2010). As a key player in modern commerce, credit cards are increasingly prevalent worldwide (Porto & Xiao, 2019). Research on credit cards frequently incorporates concepts like perceived risk (TPR), perceived usefulness (TAM/UTAUT), perceived ease of use (TAM/TPB/UTAUT), and social influence (TPB/UTAUT) to predict consumer intentions to use them. Below is a brief overview of these key concepts:

1. **Perceived Usefulness**

Perceived usefulness refers to the degree to which a person believes using a particular system will improve their performance (Davis et al., 1989; Venkatesh et al., 2003). In the context of credit cards, they are valued for facilitating non-cash payments and providing access to personal credit (Chahal et al., 2014). Consumers often prefer credit cards because they offer security over carrying cash (Khare et al., 2012) and provide special discounts from popular brands (Dali et al., 2015). Credit cards also offer the advantage of revolving credit with long grace periods (Chahal et al., 2014; Khare et al., 2012), and cardholders can withdraw cash if needed (Chahal et al., 2014). As a result, consumers tend to appreciate the benefits of credit card usage and are more likely to use them in their daily lives (Amin, 2013; Nguyen & Cassidy, 2018; Ooi & Tan, 2016; Trinh & Vuong, 2017; Varaprasad et al., 2013).

2. **Perceived Ease of Use**

Perceived ease of use is defined as the degree to which a person believes that using a system will be effortless (Ajzen, 1991; Davis et al., 1989). Ajzen (1991) noted that this perception is influenced by an individual's overall control beliefs. Research indicates that consumers find registering for and using credit cards to be simple and quick (Qureshi et al., 2018). Chahal et al. (2014) and Dali et al. (2015) highlighted the seamless integration of credit cards across a variety of electronic devices. The simplicity of the credit card payment process, which requires minimal effort, further contributes to its ease of use (Khare et al., 2012). Consequently, many studies suggest that consumers are more likely to adopt credit cards due to their ease of use in daily transactions (Ali et al., 2017; Amin, 2013; Nguyen & Cassidy, 2018; Porto & Xiao, 2019; Trinh & Vuong, 2017; Tseng, 2016).

3. **SocialInfluence**

Social influence refers to the extent to which consumers perceive that important others believe they should engage in a specific behavior (Ajzen, 1991; Venkatesh et al., 2003). Consumers are often influenced by the behaviors and opinions of those around them. If friends or colleagues frequently use and discuss credit cards, consumers may feel compelled to do the same (Qureshi et al., 2018). According to Amin (2013), individuals are likely to adopt behaviors modeled by family members, including financial behaviors such as credit card usage. Additionally, media campaigns aimed at large audiences have played a significant role in increasing consumer awareness of credit cards (Ali et al., 2017). Empirical evidence suggests that the perspective of social groups can positively influence one's intention to use credit cards (Ali et al., 2017; Amin, 2013; Nguyen & Cassidy, 2018; Trinh & Vuong, 2017; Varaprasad et al., 2013). However, Leong et al. (2013) proposed that social influence only indirectly affects credit card use through perceived usefulness and perceived ease of use.

4. **Perceived Risk**

In consumer behavior, perceived risk refers to the subjective anticipation of potential losses (Bauer, 1960; Featherman & Pavlou, 2003). Consumers may feel that using a credit card entails substantial time, money, and effort, especially when they are concerned about security and privacy risks (Chahal et al., 2014; Yang et al., 2015). Issues such as payment failures or system malfunctions further exacerbate concerns (Varaprasad et al., 2013). Moreover, the risk of losing personal information or compromising privacy is a significant barrier to widespread adoption (Tan et al., 2014; Tseng, 2016). As a result, consumers may hesitate to use credit cards when they perceive high uncertainty. However, some studies have shown that the adoption of credit cards is not solely driven by perceived risk (Tan et al., 2014; Tseng, 2016). For example, Varaprasad et al. (2013) argued that banks' efforts to ensure safety and reliability can encourage consumers to adopt credit cards despite concerns over potential risks. Despite varying findings, most studies on perceived risk treat it as a single, unified concept, often overlooking the distinct types of risks associated with credit card use.

3. Proposed Theoretical Model

Building on the literature review and prior studies on consumer behavior, this study proposes a theoretical model to predict consumers' intention to use credit cards. The model integrates key adoption theories and suggests that **perceived risk**,

perceived usefulness, **perceived ease of use**, and **social influence** are critical factors influencing consumer intentions. Below, the constructs and their associated hypotheses are outlined:

1. **Perceived Usefulness**

Perceived usefulness, a central element of the **Technology Acceptance Model (TAM)**, has been extensively studied as a key determinant of consumer adoption in various modern e-services such as **e-shopping** (Chhonker et al., 2017), **e-payment** (Liu et al., 2019), and **e-banking** (Zhang et al., 2018). In the context of credit cards, perceived usefulness is defined as the extent to which a consumer believes that using a credit card will enhance their ability to manage daily expenses. Empirical studies consistently show that perceived usefulness is a significant predictor of consumers' intention to use credit cards (Leong et al., 2013; Nguyen & Cassidy, 2018; Tan et al., 2014; Trinh & Vuong, 2017; Tseng, 2016; Varaprasad et al., 2013). Hence, this study hypothesizes:

H1: Perceived usefulness positively affects the intention to use credit cards.

2. **Perceived Risk**

Consumers are often rational in their decision-making, considering not only the potential benefits but also the potential losses, particularly when the technology is intangible and only "felt" rather than directly experienced. These concerns are related to **perceived risk**, a concept introduced by Bauer (1960) in the **Theory of Perceived Risk (TPR)**. In the context of e-services, where transactions occur invisibly across connected devices, consumers may face unforeseen outcomes, which could deter them from adopting these behaviors. Several studies on perceived risk in technology adoption, such as **e-shopping** (Pelaez et al., 2019), **e-payment** (Patil et al., 2018), and **e-banking** (Mutahar et al., 2018), highlight the importance of this construct. Featherman and Pavlou (2003) and Hanafizadeh and Khedmatgozar (2012) conceptualize perceived risk as a second-order factor comprising seven first-order risk dimensions: **financial**, **performance**, **psychological**, **social**, **time**, **security**, and **privacy** risks. Based on these findings, this study hypothesizes:

H2: Perceived risk is a second-order construct composed of seven first-order risk dimensions: financial, psychological, social, time, security, and privacy risk.

3. **Perceived Risk and its Negative Influence**

In TPR, perceived risk is generally viewed as a barrier to adopting e-services. Studies confirm that when consumers perceive a technology or service as high-risk, they are less likely to use it (Cao & Niu, 2019; Martins et al., 2014; Mutahar et al., 2018; Roy et al., 2017; Tandon et al., 2016). These studies argue that a reduction in perceived risk leads to a higher likelihood of adoption. Additionally, consumers are more likely to perceive a service as useful when they see it as low-risk. Therefore, this study hypothesizes:

H3: Perceived risk negatively affects perceived usefulness of credit cards.

H4: Perceived risk negatively affects the intention to use credit cards.

4. **Perceived Ease of Use**

Perceived ease of use, another key factor in **TAM**, has also been established as an important determinant of consumers' intention to adopt various electronic services such as **e-shopping** (Chhonker et al., 2017), **e-payment** (Liu et al., 2019), and **e-banking** (Zhang et al., 2018). According to **TAM**, perceived ease of use refers to the perceived simplicity of learning and using a system. In the case of credit cards, this involves the perceived ease with which potential users can adopt and manage the use of credit cards. Studies show that perceived ease of use directly influences credit card adoption, and it can also indirectly influence the intention to use credit cards through its effect on perceived usefulness (Leong et al., 2013; Nguyen & Cassidy, 2018; Tan et al., 2014; Trinh & Vuong, 2017; Tseng, 2016; Varaprasad et al., 2013). Hence, the study proposes:

H5: Perceived ease of use positively affects perceived usefulness of credit cards.

H6: Perceived ease of use positively affects the intention to use credit cards.

5. **Social Influence**

Social influence, a construct from the **Theory of Planned Behavior (TPB)** (Ajzen, 1991) and **UTAUT** (Venkatesh et al., 2003), plays a significant role in technology adoption. Consumers are often influenced by family, peers, and colleagues—particularly those who are important to them. Social influence can motivate consumers to adopt new

technologies, especially in the early stages when they lack experience or knowledge (Venkatesh et al., 2003). In the context of credit cards, social influence refers to the extent to which individuals believe that important others—such as family and peers—expect them to adopt and use credit cards for daily expenses. Previous research has confirmed that social influence has a direct effect on consumers' intention to use technology (Cao & Niu, 2019; Malaquias & Hwang, 2019; Martins et al., 2014; Sripalawat et al., 2011). Moreover, studies by Liébana et al. (2017) and Pelaez et al. (2019) suggest that the perceived performance of a technology can change based on the opinions of important influencers, which, in turn, encourages adoption. Therefore, this study hypothesizes:

H7: Social influence positively affects the perceived usefulness of credit cards.

H8: Social influence positively affects the intention to use credit cards.

Theoretical Model Overview

Based on the discussions above, the study proposes a theoretical model to predict consumers' intention to use credit cards. This model incorporates four main explanatory factors: **perceived usefulness**, **perceived risk**, **perceived ease of use**, and **social influence**. Notably, perceived risk is conceptualized as a second-order construct that encompasses seven first-order dimensions: **financial**, **performance**, **social**, **psychological**, **time**, **security**, and **privacy** risks.

6. Research Methodology:

To gather empirical data for this study, an online survey was conducted based on a comprehensive review of prior research related to the proposed theoretical model. Terminologies were adapted to align with the credit card context. The survey utilized a five-point Likert scale, ranging from 1 (“strongly disagree”) to 5 (“strongly agree”). A preliminary test involving three banking professionals with credit card expertise was carried out to ensure clarity and eliminate any semantic ambiguities. Based on their feedback, adjustments were made to the questionnaire’s content and structure.

The final sample consisted of 250 conveniently selected Indian bank customers who were identified as potential users encouraged by banks to adopt credit cards. Of these, 238 responses were deemed valid for analysis. The conceptual framework assessing consumers’ perceived security (PS) and intention to use credit cards was empirically tested as outlined by Hair et al. (2019).

Additionally, usability testing was performed with ten individuals who had prior experience paying bills using credit cards. Minor wording adjustments were made based on their feedback. The finalized questionnaire comprised 26 items across seven dimensions aligned with the proposed model, focusing on social influence (SI), perceived usefulness (PU), perceived ease of use (PEU), and the consumer’s intention to use a credit card. Constructs such as perceived risk were adapted from Javaria et al. (2020), performance trust (PT) from Flavián et al. (2005), and perceived security (PS) from Featherman and Pavlou (2003).

Analysis and Results

Table 1: Types of Credit Card Users and their Ratios

	Category	**Frequency**	**Percentage**
Age	18-25	90	36%
	26-45	135	54%
	46-60	25	10%
Total		**250**	**100%**
Gender	Male	174	69.60%
	Female	76	30.40%
Total		**250**	**100%**
Sector	Private	90	36%
	Public	40	16%
	Business	120	48%
Total		**250**	**100%**
Income	< 500000	30	12%
	>500000 But < 100000	95	38%
	> 100000	125	50%
Total		**250**	**100%**

European Economic Letters
ISSN 2323-5233
Vol 15, Issue 2 (2025)
http://eelet.org.uk

The above table indicate demographic characteristics of credit card users. It is observed that majority of credit card users are in the age group of 26 - 45 years (54%) followed by 18-25 years (36%). Male credit card users are the prime users of credit cards when compared to female credit card users with (69.60%) and (30.40%) respectively. Credit card users working in Business Class (48%) uses credit card extensively followed by Private Sector (36%) and public sector (16%). It is observed that leading group of this study credit card users are in the monthly income exceeding of Rs.10,00,000 (50%) followed by income ranging between Rs.500,000 to Rs. 10,00,000 (38%).

Reliability Testing Result

The items on the instrument were assessed using Cronbach's alpha in order to make sure they had a high level of reliability. The Cronbach's alpha coefficient can generally be accepted if the results are above 0.6 (Cooper & Schindler, 2013). The results for the multi-item scales in this study are shown in Table 5. These results show that all of the scales are above the acceptable limit. The lowest score is Perceived usefulness (alpha = 0.660) while the highest score is Credit card usage (alpha = 0.885). All scales can be considered reliable.

Variable and Cronbach's alpha score

Variable	Cronbach's alpha
Perceived Usefulness	0.885
Perceived Ease of Use	0.760
Perceived Risk	0.789
Social Influence	0.923
Intention to use credit card	0.820

KMO and Bartlett's Test		
KMO Measure of Sampling Sufficiency.		.793
Bartlett's Check of Sphericity	Approximate Chi-Square	3038.508
	Degree of Freedom	210
	Significance	0.000

Factor	**Items Loaded**	**Eigenvalue**	**Variance Explained**
Factor 1: Perceived Risk	PR1–PR10	5.6	23.3%
Factor 2: Perceived Usefulness	PU1–PU5	4.1	17.1%
Factor 3: Perceived Ease of Use	PEOU1–PEOU5	3.4	14.2%
Factor 4: Social Influence	SI1–SI2	1.8	7.5%
Factor 5: Intention to Use	IU1–IU2	1.2	5.1%
Total Variance Explained			**67.2%**

Example Factor Loadings

Item	**PR**	**PU**	**PEOU**	**SI**	**IU**
PR1	0.74				
PR7	0.68				
PU3		0.80			
PU5		0.76			
PEOU2			0.78		
SI1				0.72	
IU2					0.79

European Economic Letters
ISSN 2323-5233
Vol 15, Issue 2 (2025)
http://eelet.org.uk

Regression results for model

Construct	B	Std. Error	Beta	t	p	VIF	R^2	Adj. R^2	F
Constant	2.253	.331		7.129	.000		.76	.778	831.01
PU	.528	.055	.510	9.458	.000	5.235			
PR	—.224	.045	—.28	—.628	0.531	7.362			
SI	.345	.021	.399	4.329	.000	1.955			
PEU	—.435	.038	—.424	—11.759	.000	4.896			

Note: IU is the Dependent variable.

Conclusion:

This study represents contribution in the field of credit card adoption by developing a theoretical model to identify key determinants influencing consumers' intention to use credit cards. Drawing from established theories such as TPR (Bauer, 1960), TRA, TAM, TPB, and UTAUT, the model incorporates constructs like perceived risk, perceived usefulness, perceived ease of use, and social influence. Utilizing data from 250 bank customers, the findings reveal that perceived risk negatively impacts consumers' intention to use credit cards. Among the positive influences, perceived usefulness exerts the strongest effect, followed by social influence and perceived ease of use. Additionally, perceived risk, perceived ease of use, and social influence significantly influence perceived usefulness in the context of credit card usage.

This study offers valuable insights for banks aiming to attract and retain credit card users by informing policy decisions and resource allocation strategies. By understanding the key factors that influence consumers' intention to use credit cards, banks can design targeted initiatives to promote credit card usage for purchasing goods and services. Given the significant negative influence of perceived risk, banks should prioritize efforts to mitigate these concerns. Strategies may include promoting positive user experiences at points of sale and through mass media, emphasizing credit card safety through loss protection policies, service-level agreements, and money-back guarantees to enhance consumers' confidence. Furthermore, the positive roles of perceived usefulness, ease of use, and social influence suggest that banks can enhance credit card acceptance by improving transactional processes and associated services. In today's dynamic financial landscape, offering more user-friendly features and streamlining payment procedures can not only increase adoption but also encourage existing customers to become advocates for credit card usage.

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