

Article

Determinants of Behavioral Intention to Use Digital Payment among Indian Youngsters

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Abstract: In the current study, we sought to construct an integrated model to identify various elements and evaluate the impact of these identified factors on customers' behavioral intention to use or not use specific M-wallets for payment. To this end, we proposed and validated a conceptual model. In all, 600 questionnaires were distributed, and 482 responses were deemed usable. Structural equation modeling was used to demonstrate the stability of the proposed model and to test the research hypotheses. Perceived value, trust, compatibility, and social influence were all found to have a substantial influence on behavioral intention; however, consumers are less likely to use an M-wallet on the basis of perceived enjoyment. We also found that trust, followed by compatibility, has a stronger influence on customers' behavioral intentions in the context of M-payments. This study only included six M-wallets and was restricted to a certain age group in a single city. Understanding the many characteristics of behavioral intention can help M-wallet providers gain consumer trust and increase the frequency with which consumers use M-wallets for M-payments. The findings suggest that M-wallet service providers should consider and manage all influencing elements as proactive strategies for M-wallet intention. This strategy can be used to create an M-wallet-user behavioral intention model that will assist enterprises/companies in managing the establishment of their users' behavioral intentions.

Keywords: mobile payment; technology adoption; behavioral intentions



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1. Introduction

“Digital India”, “Cashless Economy”, “Virtual World”, and “Digital Payments” are current buzzwords. Everyday technological improvements are available in a variety of formats, such as e-banking, digital cash, and m-banking. Various types of digital payments are available to promote cashless transactions and convert India into a less-cash society. [Srivastava and Chandra \(2010\)](#) and [Singh et al. \(2023b\)](#) defined digital payment as an electronic means of payment that is more convenient than a traditional wallet. It offers speedy and secure payment ([Ondrus and Pigneur 2006](#)) and is transforming the digital payment system into a sustainable payment system. Banking cards, UPI, micro-ATMs, internet banking, mobile banking, and mobile wallets are examples of long-term payment methods. Among these, mobile wallets are among the most common payment methods ([Chawla and Joshi 2019](#)). This could be because people have established a habit of always carrying a cell phone and cash with them. As with traditional wallets, users tend to always keep their mobile devices on them. As a result of this tendency, the mobile wallet was created. A mobile wallet is a method of carrying currency in a digital form. Paytm, Freecharge, Mobikwik, Oxigen, mRuppee, Airtel Money, Jio Money, SBI Buddy, itz Cash, Citrus Pay, Vodafone M-Pesa, Axis Bank Lime, ICICI Pockets, SpeedPay, and other firms offer mobile wallet services (source: <http://cashlessindia.gov.in>, accessed on 25 July 2022).

Furthermore, mobile wallets have emerged as alternatives to traditional wallets in which credit or debit card information is stored on a single device (Markendahl et al. 2010; Khare et al. 2023). Mobile wallets are the most practical method of digital payment because the entire wallet is contained within a single device, providing complete security and anonymity (Oliveira et al. 2017; Singh et al. 2023a). Mobile wallets are part of the Digital India project (Shin 2009); they provide payment processing services that are governed by financial regulations and accessible via internet services on a mobile device (Shaw 2014). M-wallets contain all the information required to conduct banking or provide payment services (Chawla and Joshi 2019). A payment is made using a person's cell number, using a mobile wallet program on their phone, or by simply scanning QR codes available in retail stores (Mallat et al. 2004). M-wallets provide discounts and cash-back offers to their clients, and they help minimize the unnecessary clutter of a traditional wallet (Plouffe et al. 2001; Gupta et al. 2023). They also limit the exposure of financial details because payment is made with a single tap from any mobile wallet application installed on a mobile phone (Cole et al. 2009).

Thus, while underlining the critical role of M-wallets in India, this study's goal is to analyze Indian consumers' behavioral intentions regarding mobile wallet usage (Gbongli 2022). Mobile wallets have evolved as a viable and safe method of digital payment, providing users with ease and privacy while eliminating the need for actual cash and other clutter in traditional wallets. This study aims to investigate the factors that influence Indian consumers' satisfaction with mobile wallets, underlining the importance of mobile wallets as a trustworthy and secure method of performing digital transactions in India. The literature demonstrates the scarcity of studies in this field. As a result, the focus of this study is on determining the drivers of user behavioral intention to use M-wallets. Hung et al. (2019) proposed potential directions for M-wallet adoption. More variables should be included in further analyses. Purohit et al. (2022) also suggested that future researchers should incorporate more constructs such as trust into their studies. As we transition to a cashless society, mobile payments will be essential. Digital transactions are already replacing cash in some locations, but customers in many underdeveloped countries are moving more slowly to embrace this change. India has the world's second-largest mobile subscriber base. Therefore, the goal of this study is to identify the key factors influencing consumer mobile payment adoption in India (Mew and Millan 2021; To and Trinh 2021; George and Sunny 2021). This study focuses on consumers from all eight states in India's northeastern area. Nine digital wallet providers, controlled by mobile network operators, banks, and independent players, are included in the survey: Airtel money, Jio money, Vodafone m-pesa, Google pay, PhonePe, Paytm, State Bank Buddy, Citi Masterpass, and HDFC PayZapp.

1.1. Objectives of this Study

1. To determine shoppers' behavioral intention to use M-wallet services;
2. To assess the elements that influence shoppers' use of digital payments;
3. To investigate the impact of identified variables on shoppers' satisfaction and trust, which are mediators of M-wallet intention;
4. To provide recommendations to M-wallet institutions for ways to increase the use of M-wallets among shoppers.

1.2. Statement of the Problem

In the early phase of the cashless economy, shoppers were not well informed about digital payments and were less likely to use them due to safety concerns, network connectivity, and other issues. These concerns have been addressed by M-wallet providers such as GPay, PhonePe, and Paytm. As a result, M-wallet providers are encouraged to make use of tech-savvy and engaged users. If digital payment applications had not worked consistently, shoppers would have rejected them, and India's transition to a cashless economy would have remained a dream only. Thus, all stakeholders worked together to increase digital

payments via M-wallets. This triggered a push for researchers to identify determinants of behavioral intentions for the adoption of M-wallets.

2. Theoretical Background

2.1. Technology Acceptance Theories

We came across several associated theories while analyzing technology adoption models, including the diffusion of innovation theory, the theory of reasoned action, the theory of planned behavior, social cognitive theory, and the technology adoption model and its extension. As a result, this study discusses the significance of several theories in finding determinants of behavioral intentions to use a mobile wallet for digital payment.

The diffusion of innovations describes how individuals accept any new product or service that enters the market. It is the oldest idea to explain the process of technological adoption. According to [Rogers and Cartano \(1962\)](#), diffusion is a social process that evolves over time. When new inventions are made available to a population of potential customers, the innovation is enthusiastically adopted. The diffusion of innovative ideas better explains the mass adoption of smartphones, Android televisions, and social networking websites (e.g., Facebook). Initially, these technological advances were accepted by innovators (technologically knowledgeable persons), then by early adopters (Generation Z), and finally by laggards (who lag behind the general community in embracing innovative products and new ideas). The theory describes diffusion as a process of spreading any innovation through stages such as awareness, persuasion, choice, implementation, and maintenance. This theory addresses several characteristics of technological acceptability, including relative advantage, complexity, compatibility, observability, trialability visibility, and result demonstrability.

When anticipating people's behavior, the researchers have always been suspicious. As a result, [Ajzen and Fishbein \(1975\)](#) proposed the theory of reasoned action (TRA) to forecast people's behavioral intentions. The theory is mostly used to forecast how people will behave based on their prior attitudes and subjective norms. According to [Ajzen and Fishbein \(1975\)](#), attitude stems from an individual's behavioral beliefs. These beliefs can be positive or negative, such as believing that eating junk food makes one fat, or that if one does not eat junk food, they will not grow fat, and evaluation may be that an individual stopped eating junk food and became fit, or that they do not feel satisfied eating without junk food. Subjective norms also have two components: normative beliefs and incentive to comply (social pressure). An individual's decision to engage in a specific activity is dependent on the consequences that the individual anticipates will arise from engaging in the behavior. This well-established, generalized theory has also been shown to be useful in forecasting individuals' behavioral intentions to adopt technology improvements ([Musa et al. 2020](#); [Yaghoubi and Bahmani 2010](#)).

Later, [Ajzen \(1991\)](#) extended the reasoned action theory by integrating perceived behavioral control. This perceived behavioral control encompasses elements such as advertising, public relations, and sustainability, among others. The theorist's goal is to predict the factors influencing users' adoption intentions (the choice to remain involved or to not engage).

$$\text{Attitude} + \text{Subjective Norms} + \text{Perceived Behavioral Control} = \text{Behavioral Intentions}$$

Furthermore, based on the TRA, [Davis \(1989\)](#) developed the technology acceptance model (TAM), which is an information systems theory that describes how customers come to accept and use a technology. It is acknowledged as the most dependable, cost-effective, and significant model in the acceptance of innovations ([Pavlou 2003](#)). The TAM has been tested in a variety of technological adoption contexts and is one of the most commonly mentioned models in the field of technology acceptance. According to the TAM, two elements influence an individual's inclination to utilize a technology: perceived usefulness and perceived ease of use. Perceived usefulness is defined as "the degree to which a person believes that using a particular system would enhance his or her job performance"

(Davis 1989, p. 320). This refers to the individual's perception of the technology/product's usefulness. Perceived ease of use, on the other hand, is described as "the degree to which a person believes that using a particular system would be free of effort" (Davis 1989, p. 320). This relates to the individual's perception of the product/technology's ease of use. TAM is primarily concerned with the motivations underlying the intent to use a specific technology or service.

Following that, Davis et al. (1992) divided behavioral adoption intentions into two categories: extrinsic motivation and intrinsic motivation. Extrinsic motivation refers to utility, usability, and other subjective criteria. Intrinsic motivation is defined as pleasure or the perception of pleasure and performance in embracing innovations.

Venkatesh and Davis (2000) proposed a theoretical extension to the technology acceptance model (TAM) that takes into consideration social influence processes, cognitive instrumental processes, perceived utility, and usage intentions. Subjective norms, voluntariness, and image are examples of social influence processes; cognitive instrumental processes include job relevance, output quality, outcome demonstrability, and perceived simplicity of use.

Venkatesh et al. (2003) expanded TAM into the unified theory of acceptance and use of technology (UTAUT). It was developed utilizing four main determinants of intention, namely performance expectancy, effort expectancy, social influence, and facilitating factors, all of which contribute to adoption intention and further explain user behavior. Despite empirical proof of theoretical structures, the theory presented a variety of ideas for future research. Researchers may conduct additional research by increasing understanding of the dynamic effects explored here, via better assessments of the core constructs used in UTAUT, and by comprehending the effects of new technology use on organizations.

The TAM is designed to examine potential users' attitudes toward the use of new technologies. Davis (1989) used two variables: perceived utility and perceived ease of use. Both perceived utility and perceived simplicity of use have an impact on behavioral intention to use a specific technology (Eze et al. 2008). Other external elements, according to the TAM, influence a person's attitude toward technology. Venkatesh et al. (2003) and Hasan (2018a) identified eight models of information technology acceptance, the technology acceptance model, the innovation diffusion theory, the theory of reasoned action, the theory of planned behavior, the motivational model, combined TAM and TPB, the PC utilization model, and social cognitive theory, and compared all of the models to form the unified theory of acceptance and use of information technology. The major constructs that determine user perception and behavior acceptance include performance, expectancy, effort expectancy, social influence, and facilitating factors (Venkatesh et al. 2003).

When considering the strengths and limitations of both models, the UTAUT model outperforms the others (Venkatesh et al. 2003; Hasan et al. 2023a). In addition, the UTAUT model beats the TAM in predicting consumer Internet uptake (Indrati et al. 2014).

2.2. Research Hypothesis Development

Perceived Value and Trust

Perceived value (Zeithaml 1988) is the purchaser's overall judgment of utility and is determined as the proportion of a consumer's perceived benefits and expenses. Consumers' perceived costs include both monetary and nonmonetary expenditures (such as time, energy, and worry). Customers are more likely to feel fairly treated if they consider the benefits of a service to outweigh the costs connected with it. The value perceived by a customer determined by an evaluation of comparable incentives connected with the offering. Perceived value is fundamental to supporting the usage of M-wallets (Holbrook 1999) as it triggers the customer's likelihood of behavioral adoption intention (Pura 2005).

Trust is all about compassion and dependability, whereas perceived value is all about the consumer's perception of the merits and demerits of a product. Trust increases perceived value when shopping online. Researchers investigated the impact of perceived trust and discovered that it is one of the most influential elements in the service industry (Apanasevic

et al. 2012; Chang et al. 2016; Hasan et al. 2023b). As a result, perceived value is an important component which influences trust (Chang et al. 2016; Yang and Peterson 2004; Gupta et al. 2023). Therefore, we hypothesized the following:

H1: *Perceived value positively influences trust among MM-wallet shoppers.*

Perceived Value and Shopper Satisfaction

According to Balan and Ramasubbu (2009), customers embraced the digital wallet due to its perceived value derived from its affordability and perceived simplicity. Empirical data also indicate a correlation between perceived value and user happiness, as demonstrated by McDougall and Levesque (2000) and Hasan et al. (2023a). Moreover, previous studies have consistently shown that perceived value has a beneficial impact on consumer satisfaction (Eggert and Ulaga 2002; Yang and Peterson 2004). When comparing the telecom business in countries such as China, Singapore, Taiwan, and Canada, it has been found that there is a positive relationship between perceived value and customer satisfaction (Lai 2004; Wang et al. 2004; Lin and Wang 2006). Based on the above discussion, researchers hypothesized the following:

H2: *Perceived value positively influences satisfaction among MM-wallet shoppers.*

Compatibility and Trust

Researchers conducted a study on the adoption of digital payment platforms among consumers. Statistical research indicated that flexible usage and ease of use (compatibility) are crucial factors that determine three dimensions of trust, as identified by Mayer et al. (1995). Hence, the presence of compatibility significantly influenced the establishment of trust in e-commerce, consequently resulting in behavioral intent (Cazier 2003). Additional studies have also demonstrated a noteworthy and favorable impact of compatibility on trust in various situations (Cazier 2003; Oliveira et al. 2017). Thus, based on the above discussion, researchers hypothesized the following:

H3: *Compatibility positively influences trust among MM-wallet shoppers.*

Compatibility and Shopper Satisfaction

Compatibility is an important factor in determining the value of an innovation. Rogers et al. (2005) defined compatibility as the degree to which an innovation is thought to connect with the existing values, prior experiences, and the needs of potential adopters (p. 242). When an invention fits with an individual's needs, the rate of adoption increases, and the level of uncertainty falls. As it allows innovations to be viewed in a more broadly accepted manner, compatibility increases the likelihood of a technology being implemented (Wu and Wang 2005). Studies undertaken by Constantiou et al. (2006), Ehrenhard et al. (2017), and Brand and Baier (2020) have demonstrated the relevance of compatibility in the adoption of new technologies by organizations. While studying mobile wallet adoption behavior, compatibility was discovered as a critical factor that directly affects shoppers' satisfaction (Hasan and Gupta 2020; Aslam et al. 2017; Oliveira et al. 2016). Customers are more likely to be satisfied when they are at ease with products and services offered and when they have access to cutting-edge technology (Nowlis and Simonson 1997; Auh and Johnson 2005; Govender and Sihlali 2014). Compatibility was an important aspect in determining mobile payment service uptake (Srivastava and Chandra 2010). Adeoti and Oshotimehin (2011) discovered that the complexity and sophistication of technology were important motivators for users to use digital payment systems. Thus, we hypothesized that.

H4: *Compatibility positively influences satisfaction among MM-wallet shoppers.*

Perceived Enjoyment and Trust

Consumer trust in online payment systems was strongly influenced by perceived enjoyment (Hwang and Kim 2007). When a potential consumer has faith in the vendor of a product or service and is assured of the confidentiality of their data, they will eventually enjoy the transaction. It has been demonstrated that a consumer's initial affective reaction could lead to a cognitive impression of integrity (Mattila and Wirtz 2001). This indicates that there is a positive association between perceived enjoyment and the integrity dimension of e-trust (Dahlberg et al. 2008; Venkatesh et al. 2012). Based on the preceding discussion, scholars hypothesized the following:

H5: *Perceived enjoyment positively influences trust among M-wallet shoppers.*

Perceived Enjoyment and Shopper Satisfaction

Perceived enjoyment is described as a crucial factor in the user acceptance of technology. When a consumer is delighted with the services provided by a seller, he or she begins to enjoy any product or service offered by the vendor. Furthermore, perceived enjoyment influences shopper satisfaction (Kotecha 2018; Yang and Peterson 2004). M-wallets are popular these days and are connected with online businesses such as Amazon, Flipkart, and Snapdeal due to customer-reported enjoyment and satisfaction (Kalyani 2016). According to Liu et al. (2012) and Khatoon et al. (2020), perceived enjoyment influences consumers to use digital payment modes, on which they are heavily reliant. Based on the above discussion, scholars hypothesized the following:

H6: *Perceived enjoyment positively influences satisfaction among M-wallet shoppers.*

Social Influence and Trust

Trust is an important construct in e-commerce today as it has a positive influence on consumer intention to buy a product (Gefen and Straub 2004; Sharma et al. 2019). Studies have revealed trust as a significant antecedent that affects users' satisfaction (Mittal and Kumar 2018). Furthermore, Murendo et al. (2018) stated that the M-payment service is highly dependent on the mobile service provider and its services to users. Therefore, the following hypothesis is affirmed:

H7: *Social influence positively influences trust among M-wallet shoppers.*

Social Influence and Shopper Satisfaction

Social influence is the perceived influence of others that motivates users to make transactions using mobile technology. The groups of people who influence shoppers using mobile wallets are families, friends, colleagues, and neighbors. Many researchers have demonstrated the significance of people's feedback triggering one's behavioral intentions (Vasanth and Sarika 2019). The TAM identified social commerce constructs and their influence on trust and intentions to buy (Ramanathan et al. 2017). Social influence is crucial in influencing satisfaction among shoppers, who are positively influenced by social factors with respect to the adoption of M-wallets (Hamza and Shah 2014). Here, based on the above discussion, the authors of this study hypothesized the following:

H8: *Social influence positively influences satisfaction among M-wallet shoppers.*

Trust and Behavioral Intention

Trust can be defined as the subjective judgment of an entity's credibility and friendliness (Doney and Cannon 1997). This concept is important in the context of mobile banking (mBanking). Consumers are exposed to varied amounts of risk while engaging in a financial transaction. Consumers want a mobile application that is both dependable and credible and

which is provided by the service provider with their best interests in mind. Trust is a notion that is important in many areas of psychology and sociology, and it plays an important role in improving client interactions (Lewicki et al. 2006). Alalwan et al. (2017) investigated the UTAUT2 model to determine its predictive capabilities. The study included testing the model both with and without the trust component. The prediction accuracy of the model for business intelligence (BI) was found to be 65% when trust was considered compared to 59% when trust was not considered. This shows that when paired with other UTAUT2 components, trust has a considerable impact on BI's predictive potential. Chong (2013) expanded on the technology acceptance model (TAM) in a subsequent study by incorporating the idea of trust to discover the numerous aspects that influence the adoption of mobile commerce (m-commerce). The elements of trust and security in e-payment systems have been thoroughly studied (Kim et al. 2010). Gefen et al. (2003) used an integrated strategy to investigate the impact of trust on students' online purchasing behavior, applying the technology acceptance model (TAM).

Trust, perceived risk, and behavioral intention are multifaceted phenomena connected with individuals, cultures, and environments (Bashir and Madhavaiah 2015; Gefen and Straub 2004). According to Worthington (2003) and Esmaili et al. (2011), trust and behavioral intention have significant impacts on risk reduction.

Hasan and Gupta (2020) discovered that the consumer perception of the use of digital payment increased shopper confidence in transactions. M-wallets should be secure and risk-free for consumers when engaging in online transactions. Researchers discovered that security is critical when utilizing M-wallet services (Chiu et al. 2017; Hasan and Gupta 2020). The following hypothesis must be expressed here:

H9: *Trust positively influences behavioral intention among M-wallet shoppers.*

Shoppers Satisfaction and Behavioral Intention

Satisfaction and behavioral intention are positively connected (Hasan 2018b). The positive association between social influence and behavioral intention is indicated by the correlation coefficient between satisfaction and behavioral intention (Prabhakaran et al. 2020). The theory of planned behavior, derived from the theory of reasoned action, also considers that customer attitudes about the use of any new technology have an impact on customers' behavioral intentions (Curran and Meuter 2005; Rees et al. 2020). As a result, hyposatisfaction and behavioral intentions are linked (Hasan 2018a). The positive association between social influence and behavioral intention is indicated by the correlation coefficient between satisfaction and behavioral intention (Prabhakaran et al. 2020). The theory of planned behavior, derived from the theory of reasoned action, also considers that customer attitudes toward the use of any new technology have an impact on customers' behavioral intentions (Curran and Meuter 2005; Rees et al. 2020). As a result, we have the following hypothesis:

H10: *Satisfaction positively influences behavioral intention among M-wallet shoppers.*

2.3. Research Gap

Previous studies examined characteristics such as perceived ease of use, perceived value, perceived trust, customer happiness, behavioral intention, perceived security, perceived compatibility, social impact, and peer influence. These constructs were derived from several theories, including the TAM and the TOE, TPB, and UTAUT models. However, the introduction of digital wallets lacked a strategic framework that linked all structures (Rathore 2016). Several studies have been conducted on each of the hypotheses that have led people to utilize mobile wallets (Venkatesh and Davis 2000).

The TAM and UTAUT model are used individually to conceptualize and determine the elements that drive mobile wallet adoption. A hybrid of both models is used to assess the viability of these constructs in terms of mobile wallet use. As a result, a modified

model framework aimed at aligning distinct constructs is used in this study. Furthermore, retailer/merchant perception has been used in numerous sectors (Mittal and Kumar 2018), although shoppers' opinions have been overlooked (Dahlberg et al. 2008). As a result, the current effort aims to investigate users' behavioral intentions toward using selected M-wallets for M-payments. According to studies, the impact of mobile wallets on major cities in the country's North Eastern Region has gone undiscovered. Therefore, based on extensive literature review the study proposed the conceptual model (Figure 1).

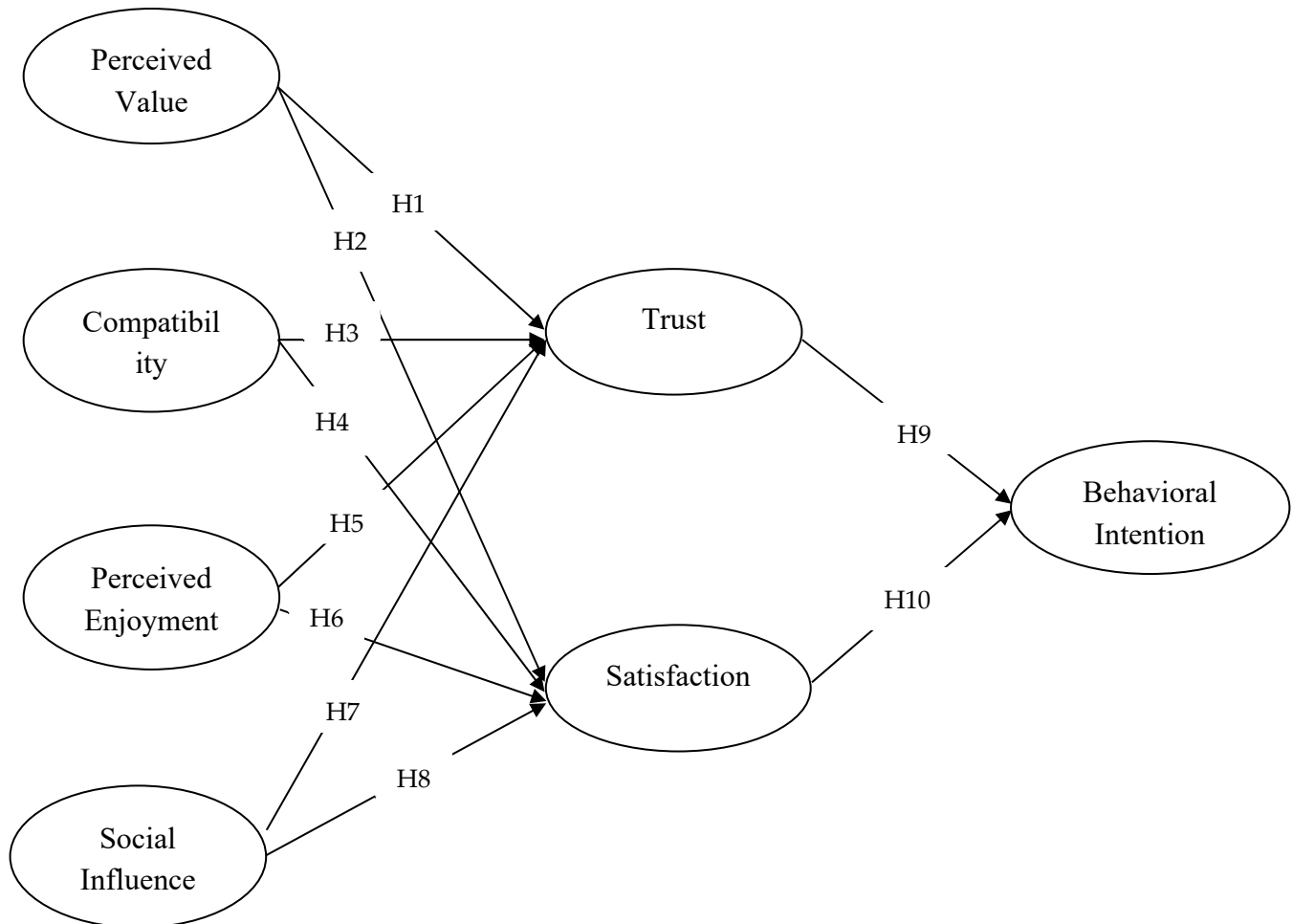


Figure 1. Conceptual framework. Source: authors' own data.

3. Research Methodology

3.1. Research Design

This study was exploratory and descriptive in nature. The first researcher investigated the digital payment dimension of the M-wallet by meeting with merchants and professionals who use M-wallet payment services. Second, as this study is sought to discover links between various aspects of digital payment, the researcher determined the consumer adoption of M-wallets through a descriptive study. This study comprised applied research from the application standpoint because it aimed to find a solution to the problem of digital payment and evaluate the responses of shoppers. This research is classified as cross-sectional. At one point, shoppers were contacted, and the necessary information was gathered.

3.2. Sampling

The sample comprised existing M-wallet customers of a digital payment platform. Snowball sampling was utilized to collect data to identify the actual users of the M-wallet

and to supplement the research findings with real-world responses. Customers who used an M-wallet were chosen. These shoppers were selected to provide statistics. The sampling unit was an M-wallet user from a selected city in the North Eastern Region who utilizes digital payment services.

The sample size was estimated using the existing sampling literature, such as sample size determination tables (Krejcie and Morgan 1970) and the minimum-threshold five times rule approach, which also fulfills the sample size ratio requirement (Hair et al. 2011). As a result, an initial sample size of 500 met the sample size criterion.

3.3. Instrument Used

This research study used a non-disguised structured questionnaire which was distributed to obtain information from shoppers. Scale items of the questionnaire were adopted from Nysveen et al. (2005), Venkatesh et al. (2012), Hayashi and Bradford (2014), and Shaw (2014). A five-point Likert scale was used to gather information from the respondents.

3.4. Data Collection

Firstly, all relevant earlier theories and factors were included in the initial draft of the questionnaire, which was followed by a discussion with corporate managers and experts. The authors modified and reviewed the questionnaires again for the finalization of the questionnaire before pilot testing. Emails and links (Google Forms, Whatsapp, Facebook, and Instagram) were shared with the users for the online collection of data, while personal contact was also used for offline data collection. Initially, questionnaires were distributed to 500 respondents, and 480 questionnaires were collected. Finally, 459 responses were analyzed, and incomplete forms were excluded.

4. Results

4.1. Demographic Analysis

The demographic profiles of the respondents were explained using descriptive statistics. More than half of the respondents, i.e., 62 percent, were male, and the remaining were female. Seventy percent of the respondents were in the age group of 21–40 years. Of the total respondents, 56.4 percent were married, while the rest, 43.6 percent, were unmarried; hence, marketing strategies may be directed toward dominant segments. Most of the respondents, i.e., 48 percent, were fraternity students. Hence, it was revealed that students are frequent users of these select M-wallet providers. This revealed that students update themselves about new trends in technology, followed by employees. Furthermore, regarding education, 39.3 percent of the respondents had graduated, and 27.4 percent had completed post-graduate study. This indicates that higher education has influenced the usage of M-wallets.

4.2. Reliability and Validity Analysis

An exploratory factor analysis (EFA) was used to explore the factors. In the EFA, a principal component analysis along with varimax rotation demonstrated seven constructs that have eigenvalues < 1 and retained 35 items (which have more than 0.6 loadings) out of 40 items. The Kaiser–Meyer–Oklin and Bartlett’s test of sphericity values were 0.906 and 0.000, respectively, which are acceptable threshold values in both cases.

Further, the scale was purified through a confirmatory factor analysis (CFA) and the effectiveness of the measurement model for seven constructs and 35 indicators was assessed. The measurement model values are χ^2/df —2.062; CFI—0.953; GFI—0.878; AGFI—0.857; RMSEA—0.048; and RMR—0.039, depicting satisfactory results (refer to Figure 2). This shows that the theorized model fits well with the observed data. Standardized factor loadings, composite reliability, and the AVE were assessed (refer to Table 1), confirming confirms good indicators of validity and reliability (Nunnally and Bernstein 1994).

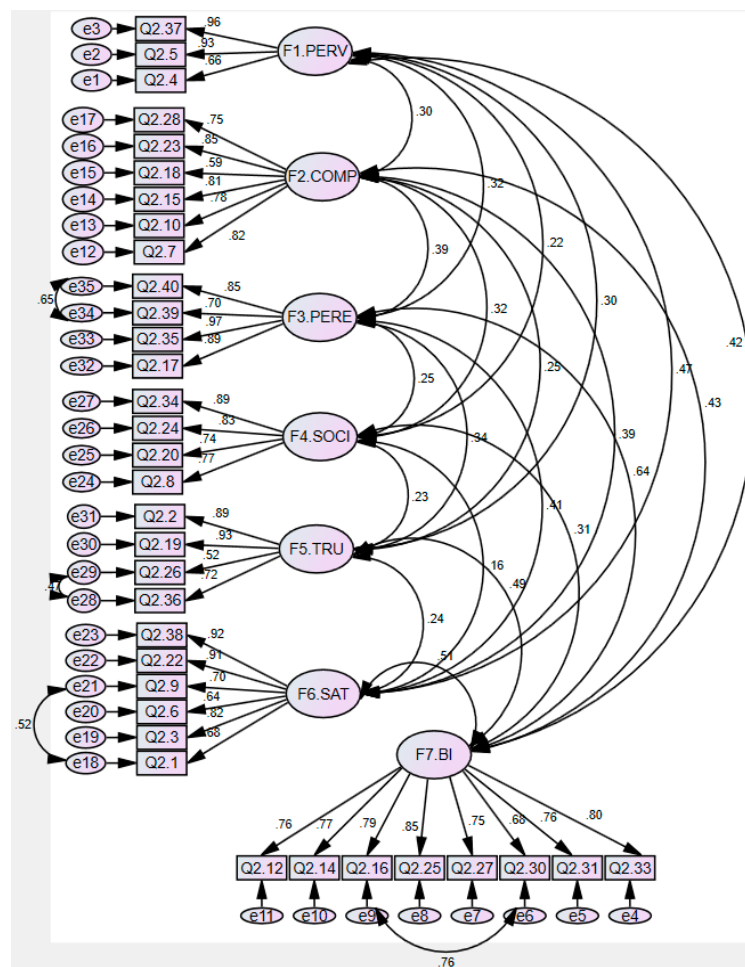


Figure 2. Measurement model. **Source:** authors' own data. **Note:** All factor loadings are significant at $p < 0.05$; measurement model fit: PCMIN/DF—2.062; GFI = 0.878; AGFI = 0.857; NFI = 0.913; CFI = 0.953; RMSEA = 0.048.

Table 1. Standardized item loadings, average variance extract (AVE) values, and CR values.

Constructs	Items	Sources	SRWs	AVE	CR
PERV	Q2.4. Using M-wallet is convenient	Venkatesh and Davis (2000) Davis (1989)	0.654	0.85	0.874
	Q2.5. Accomplish financial tasks & payments		0.921		
	Q2.37. Spend more time on M-wallet		0.972		
COMP	Q2.7. Using mobile payment services are easy M-wallet	Hayashi and Bradford (2014) Lwoga and Lwoga (2017)	0.827	0.77	0.896
	Q2.28. Satisfied with the security of M-wallet		0.781		
	Q2.10. Familiar with all the transactions		0.81		
	Q2.15. Attractive and explanatory.		0.590		
	Q2.18. Referred by my family and friends.		0.849		
	Q2.23. Trust in mobile wallet apps		0.763		

Table 1. Cont.

Constructs	Items	Sources	SRWs	AVE	CR
PERE	Q2.17. M-payment services are beneficial.	Lewis et al. (2016)	0.891	0.85	0.928
	Q2.35. Using M-wallet when the opportunity arises.	Zhang et al. (2018)	0.963		
	Q2.39. Using a mobile payment procedure	Wenzel and Benkenstein (2019)	0.704		
	Q2.40. Always tries to use Mobile wallet.		0.853		
SOCI	Q2.8. Using mobile payment services fits well	Taylor and Todd (1995)	0.768	0.81	0.882
	Q2.20. using mobile payment services is a good idea	Venkatesh and Davis (2000),	0.738		
	Q2.24. My money is not secured in mobile wallet.		0.832		
	Q2.34. Frequently use Mobile wallet in the future	Venkatesh et al. (2003)	0.897		
TRU	Q2.2. Mobile services users have a high profile.	Kim et al. (2010)	0.886	0.78	0.863
	Q2.36. Availability of access in m payment		0.927		
	Q2.19. Will use it because my society people use it.	Schneider et al. (1998)	0.518		
	Q2.26. Using M-wallet service gives me satisfaction.	Venkatesh et al. (2003)	0.717		
SAT	Q2.1. Using m-payment services are prestigious	S. C. Chen (2012), Hossain et al. (2018)	0.676	0.78	0.916
	Q2.3. Using mobile payment is a status symbol.		0.819		
	Q2.6. Mobile wallet is integrated with banking		0.639		
	Q2.9. Appreciate using mobile payment services		0.699		
	Q2.22. Mobile wallet is safe and has reliable features.		0.908		
	Q2.38. Strongly recommends others to use M-wallet.		0.918		

Table 1. Cont.

Constructs	Items	Sources	SRWs	AVE	CR
BIs	Q2.12. Using mobile payment system is pleasant.	Davis (1989), Gefen et al. (2003)	0.759	0.77	0.902
	Q2.14. Banking is fun in mobile wallet.		0.768		
	Q2.16. People influence to me for m-payment.		0.785		
	Q2.25. Trust this app due to my closed ones.	Venkatesh and Davis (2000)	0.847		
	Q2.27. Satisfied with the fees charged in M-wallet.		0.749		
	Q2.30. Transfer money to anyone anytime	Venkatesh et al. (2012)	0.677		
	Q2.31. Have a positive attitude toward m-payments.		0.758		
	Q2.33. intend to adopt mobile wallet.		0.792		

Source: authors' own data. PERV = perceived value, COMP = compatibility, PERE = perceived enjoyment, SOCI = social influence, SAT = satisfaction, TRU = trust, BI = behavioral intentions. SRW = standardized regression weights; AVE = average variance extract; CR = composite reliability.

Content validity was established through experts, and necessary changes were made. The average variance extracted (AVE) and composite reliability (CR) also show acceptable results which confirm convergent validity (Kline and Rosenberg 2010). Discriminant validity was also established using the average variance extracted and squared interconstruct correlation (refer to Table 2). The common latent factor method also provided a result in the acceptable range (Podsakoff et al. 2003). Hence, it was concluded that the scale is valid and reliable.

Table 2. Correlation, squared correlation, and AVE.

Factors	PERV	COMP	PERE	SOCI	SAT	TRU	BI
PERV	0.85						
COMP	0.29	0.77					
PERE	0.32	0.38	0.85				
SOCI	0.22	0.32	0.24	0.81			
SAT	0.34	0.25	0.34	0.23	0.78		
TRU	0.47	0.39	0.40	0.16	0.24	0.78	
BI	0.42	0.43	0.63	0.31	0.49	0.50	0.77

Source: authors' own data. Note: PERV = perceived value; COMP = compatibility; PERE = perceived enjoyment; SOCI = social influence; SAT = satisfaction; TRU = trust; BI = behavioral intentions.

4.3. Structural Model and Hypothesis Testing

Structural equation modeling (SEM) was used to examine the hypothesized relationships among all the constructs (McDonald and Ho 2002). The model fit of the structural model was in the acceptable range (GFI = 0.848; AGFI = 0.823; NFI = 0.893; CFI = 0.911; RMSEA = 0.061) (Kline 2015; Hair et al. 2010). The R^2 values, i.e., 0.43 and 0.51, demonstrated variance in the structural model which explained 43 percent and 51 percent of the intent to use m-payments among shoppers.

The structured model revealed statistically significant effects on eight paths out of ten paths (Figure 3), as proposed in the model (refer Table 3). However, other factors

like COMP with TRU ($\beta = 0.072$, $p > 0.05$) and SOCI with SAT ($\beta = 0.022$, $p > 0.05$) have insignificant effects on m-payment adoption, as determined via an SEM analysis.

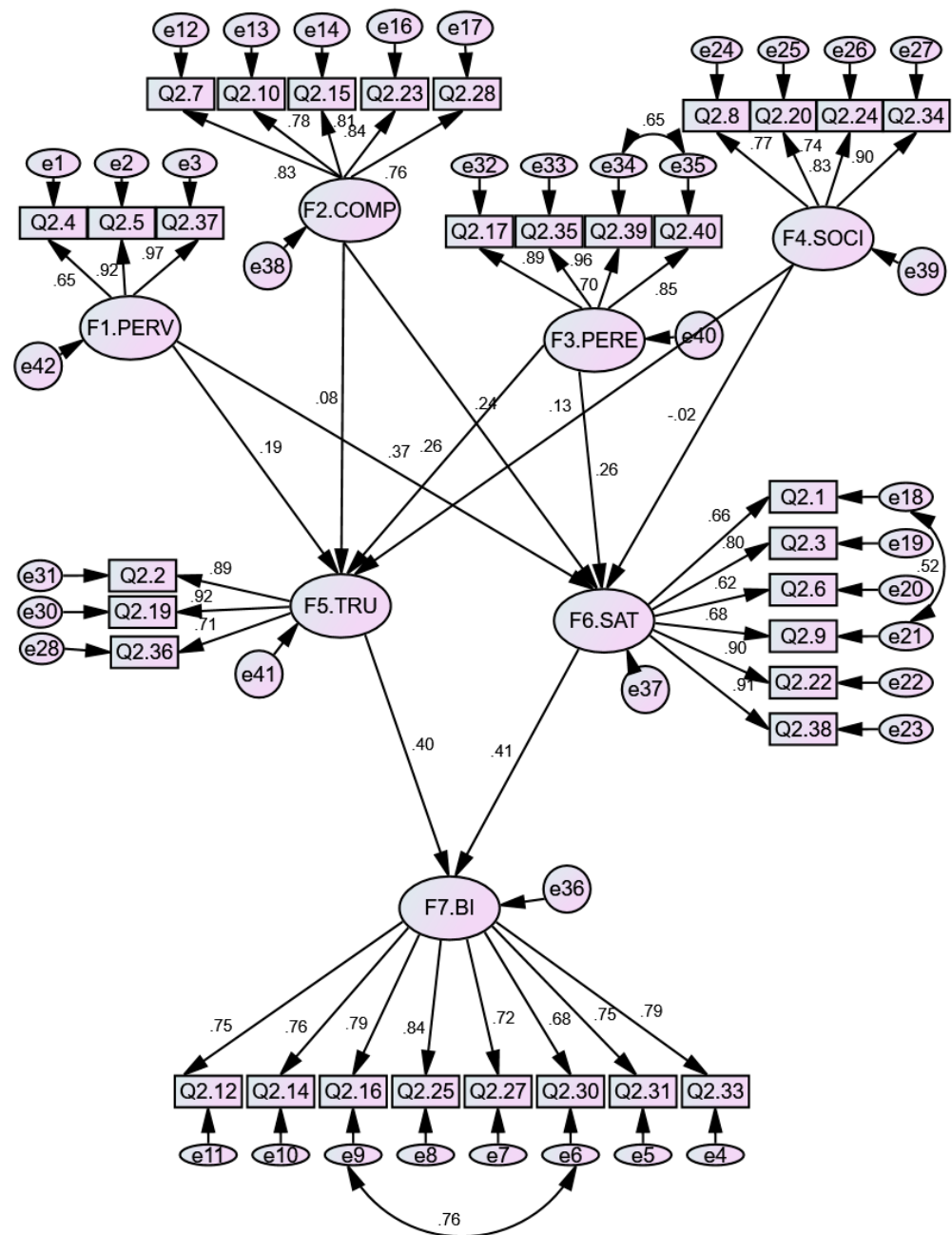


Figure 3. Structural model. **Source:** authors' own data. **Note:** All factor loadings are significant at $p < 0.05$; structural model fit: PCMIN/DF—2.680; GFI = 0.848; AGFI = 0.823; NFI = 0.893; CFI = 0.911; RMSEA = 0.061.

Table 3. Hypothesis testing results of the structural model.

Hypothesis	Estimates (β)	p-Value	Supported
H1 Perceived Value—Trust	0.147	0.000	Yes
H2 Perceived Value—Satisfaction	0.250	0.000	Yes
H3 Compatibility—Trust	0.072	0.095	No
H4 Compatibility—Satisfaction	0.186	0.000	Yes
H5 Perceived Enjoyment—Trust	0.208	0.000	Yes
H6 Perceived enjoyment—Satisfaction	0.177	0.000	Yes
H7 Social Influence—Trust	0.141	0.000	Yes
H8 Social Influence—Satisfaction	0.022	0.599	No
H9 Trust—Behavioral Intentions	0.0429	0.000	Yes
H10 Satisfaction—Behavioral Intentions	0.508	0.000	Yes

Source: authors' own data, significant at 0.05 levels.

5. Results and Findings

Structural equation modeling depicts the result that perceived value positively influences trust, H1 ($\beta = 0.147$, $p = 0.000$), and satisfaction, H2 ($\beta = 0.250$, $p = 0.000$). Hence, the identification of perceived values with M-wallets helps marketers understand shoppers' behavior regarding digital payment (Varki and Colgate 2001), whereas the relationship between compatibility and trust, H3 ($\beta = 0.072$, $p = 0.095$), was insignificant. In addition, compatibility H4 ($\beta = 0.186$, $p = 0.000$) influences shoppers' satisfaction in the m-payment adoption context. Furthermore, the impacts of predictors' perceived value and compatibility are significant on trust and satisfaction, which was confirmed earlier and supported by previous findings (Van der Heijden 2002). It was also revealed that the correlations of enjoyment with trust H5 ($\beta = 0.208$, $p = 0.000$) and enjoyment with satisfaction H6 ($\beta = 0.177$, $p = 0.000$) are also supported. Moreover, the relationship of perceived enjoyment among shoppers with trust and satisfaction as determinants was assessed by Hayashi and Bradford (2014) and Gupta et al. (2018). Furthermore, social influence positively influences trust ($\beta = 0.141$, $p = 0.000$), which confirms hypothesis H7, although the social influence on shoppers' satisfaction with M-wallets, H8, is insignificant ($\beta = 0.022$, $p = 0.599$) and rejected. Benitez et al. (2018) and Hemchand (2016) also confirmed the same results related to the adoption of a technology in their study.

Furthermore, the results imply that both the mediator factors trust and satisfaction positively influence shoppers' M-wallet behavioral intention. This indicates that trust and satisfaction play significant roles in the minds of shoppers. Hence, hypotheses H9 ($\beta = 0.429$, $p = 0.000$) and H10 ($\beta = 0.508$, $p = 0.000$) are accepted. Earlier studies (Shaw 2014; Xu and Du 2018), Hayashi and Bradford (2014), and Shaw (2014) also revealed that trust and satisfaction are significant mediators in the adoption the of M-wallet.

This study provides several directions with the inclusion of variables like perceived value, compatibility, perceived enjoyment, and social influence, with trust and satisfaction as mediating variables. The exploration of determinants gives further insights into shoppers' attitudes toward M-wallet adoption in the North Eastern Region of India. The present work focuses on determining components and analyzing their influence on shoppers' intentions to use an M-wallet as an alternate method for transactions (Aithal et al. 2023).

Furthermore, the results provide relevant information to all stakeholders for drafting suitable strategies and actions. The outcomes of this study will help M-wallet providers determine their priorities and preferences. These research findings will also guide government officials in making India a cashless economy.

6. Suggestions and Implications

An important stage in the adoption of a new technology is thoroughly researching the relevant factors and evaluating the perspective of mobile wallet users. This analysis can provide useful information to all parties concerned. When selecting an M-wallet provider, buyers are impacted by perceived values, social influence, and compatibility, according to this research study. As a result, to gain customer trust, service providers must prioritize application design, stress-free transactions, and consumer knowledge. According to this research study, people are willing to embrace technology but are unwilling to pay higher fees for digital transactions.

Furthermore, the current study sought to evaluate the role of trust and satisfaction in moderating buyers' behavioral intentions. This study discovered that trust has a mediating role in the influence of factors on shoppers' adoption of M-wallets (perceived value, compatibility, and social influence). Prioritizing trust issues, such as delivering stress-free transactions, is therefore critical when providing digital transaction services.

Users of mobile payment services are more satisfied as a result of their online payment experience and the availability of numerous value-added services within a single application (Roy et al. 2017). As a result, M-wallet providers must prioritize the provision of value-added services for mobile wallet devices. In the Indian context, it is critical to overcome misconceptions about digital payment and security risks to increase client acceptability and enjoyment. To boost user adoption of digital payment methods, relevant measures must be developed. These data can be used to improve a theoretical model that focuses on the expansion of the technology acceptance model. All parties, including m-payment practitioners and executives, will benefit from this in building effective plans for M-wallet services.

7. Limitations and Future Research Agenda

The present study investigated specific factors that motivate consumers to utilize mobile wallets. Subsequent research could include additional factors, such as value enhancement, loyalty, and psychological risk, regarding the acceptance of mobile wallet payments. This study specifically examined consumers in the North Eastern Region of India. Subsequent investigations could explore the behaviors of consumers, merchants, and other business regulations in various regions across the country. To acquire more pertinent outcomes, further investigations should incorporate qualitative methodologies alongside quantitative methodologies. The study is limited by the fact that shoppers' attitudes towards technology evolve, and the early stage of the development of M-wallets further restricts the scope of this study. The study aimed to examine the impact of independent and mediating factors on shoppers' behavioral intentions. Future research could explore demographic traits as potential moderating factors.

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