

Understanding Brick and Mortar Retailers' Satisfaction and Continuous Intention of Mobile Payment Systems

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Abstract

Purpose : This study aimed to understand the underlying dynamics of expectation-confirmation as an influencing factor of brick-and-mortar retailers' satisfaction and continuous intention of the mobile payment system to enable the digital economy.

Methodology : The research model and hypotheses in the context of mobile payment system continuous intention were developed associating the expectation-confirmation of technology usage, satisfaction, and continuance decision. Data were collected using a survey questionnaire from 452 brick-and-mortar retailers from different regions of India selected through multi-stage random sampling. Structural equation modeling (CB-SEM) was used to test the hypotheses.

Findings : The study found strong evidence of positive disconfirmation on satisfaction and ex-post expectation from mobile payment usage influencing retailers' continuous intention. Positive disconfirmation of ex-ante cognitive belief was found to positively affect satisfaction and lead to the development of more instrumental ex-post performance belief.

Practical Implications : The findings of this study suggested that mobile payment service providers focus on delivering features that meet retailers' expectations. The study also put forth the requisite of communicating credible claims through marketing promotions to shape genuine expectations from retailers' mobile payment systems. Furthermore, the service provider must identify the retailers' post-adoption expectation changes and focus on their continued satisfaction. Continued satisfaction ensures continuous acceptance of digital payments, enabling the digital economy.

Originality : This study is the first to understand the underlying dynamics of retailers' continuance intention of the mobile payment system. Also, it filled the gap in the extant literature, otherwise lacking an important participant of mobile payment network externalities.

Keywords : expectation-confirmation model, mobile payment system, brick-and-mortar retailers, continuous intention, emerging economy

Paper Submission Date : August 30, 2023 ; **Paper sent back for Revision :** March 13, 2024 ; **Paper Acceptance Date :** April 25, 2024 ; **Paper Published Online :** July 15, 2024

India is witnessing a phenomenal rise in mobile payment users enabling a less-cash economy (Singh & Sinha, 2020; Singh, 2022). According to the Department of Payment and Settlement Systems, Central Office, Reserve Bank of India (2022) report, over 26 crore digital payment transactions are processed daily by payment systems in India. The most recent reason ascribed is the COVID-19 pandemic preventive measure that contributed to increased mobile payment adoption by consumers and retailers (brick-and-mortar and unorganized small retailers) (Mishra et al., 2021). Other reasons for this are the "Digital India" initiative by the Government of India (GOI) in 2015, promoting e-governance and also focusing on the digitalization of money transactions (Singh, 2024) and demonetization of high-value currency under circulation in November 2016 (Verma et al., 2020). However, even after the growth witnessed during the COVID-19 pandemic, now the Reserve Bank of India is anticipating a new challenge in further onboarding and retaining existing customers in digital payments

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DOI : <https://doi.org/10.17010/ijom/2024/v54/i7/174014>

platforms, including merchants who are important participants in enabling a less-cash economy (Department of Payment and Settlement Systems, Central Office, Reserve Bank of India 2022; Upadhyay et al., 2022).

During the COVID-19 pandemic, the mobile payment system, a combination of finance and information technology, facilitated convenient and safe financial transactions (Lee et al., 2019). This fintech service principally transfers money between parties anywhere and anytime without using cash through financial institutions and wireless infrastructures such as the internet and mobile devices (Singh & Sinha, 2020). In the retailing context, the mobile payment system allows customers to pay the retailers the price of goods and services digitally (Dahlberg et al., 2008; Sinha & Singh, 2023).

In their review paper on mobile payment research, Dahlberg et al. (2008) highlighted how retailers might support the digital economy by taking digital payments. They affirmed that retailers effectively develop network externalities of the digital payment system. Mallat (2007) noted that growing the user network simultaneously increases its usefulness, and network externalities in the context of digital payment systems are significant (Lee et al., 2019). Furthermore, Mallat (2007) advised that adoption-discontinuity of the mobile payment system by either party (retailer or buyer) can also risk the prospect associated with digital payments. Thus, to enable a digital economy, long-term usage or continuous intention of the mobile payment system by both parties, i.e., retailers and buyers, must be ensured.

Despite thorough studies on consumers' continuous intention of the mobile payment system, there are surprisingly few studies that explain retailers' satisfaction and continuous usage intention of the system to the best of my knowledge in the literature (Gupta et al., 2020; Humbani & Wiese, 2019; Jaiswal et al., 2022; Nabavi et al., 2016; Oliveira et al., 2014; Purohit et al., 2022; Raman & Aashish, 2021; Sinha & Singh, 2023; Talwar et al., 2020; Upadhyay et al., 2022; Zhou, 2013, 2014). There is scant literature on the post-adoption behavior of the prime actor of network externalities in the mobile payment ecosystem. The continuous interest or discontinuity of mobile payment services usage behavior can impact the realization of the vision of the digital economy (Dahlberg et al., 2015; Mallat, 2007). This observation necessitates investigating the retailers' post-adoption dynamics that would help expand and strengthen the retailers-based network externalities, further ensuring the retailer's continuous intention of using the mobile payment system to enable the digital economy.

Thus, this article attempts to study the continuous usage behavior of mobile payment systems by retailers in India, exploring their expectation-confirmation and satisfaction. This study would also be one of the earliest to conceptualize and empirically validate the continuance usage framework of mobile payment systems for retailers in emerging economies. The conceptualization of the proposed framework is based on knowledge borrowed from Oliver's cognitive model for satisfaction decisions (Oliver, 1980) and the expectation-confirmation model (ECM) (Bhattacharjee, 2001). In the context of Indian brick-and-mortar retailers, the research study aims to (a) investigate the continuous intention of the mobile payment system, (b) ascertain the impact of expectancy-confirmation on satisfaction and continuous intention, and (c) create a framework for elucidating the context of the retailers' mobile payment system and its empirical validation. The association between the variables is identified by reviewing articles on technology adoption and continuance intention to address the first and second objectives. A conceptual model and hypotheses were developed to accomplish the third objective. The association between the theoretical constructs affecting continuous intention is empirically validated using covariance-based structural equation modeling using IBM AMOS 23.

The significance of this study is: first, the post-adoption antecedent constructs of the continuous intention of mobile payment systems for retailers are charted. Second, the study provides a useful framework for understanding retailers' post-adoption continuing behavior helpful to service providers. Third, the study presents the important antecedents of retailers' post-adoption continuing intentions; this will be helpful to the service provider to improve and design services. Lastly, this study adds significant knowledge to the extant literature on the post-adoption continuous intention of retailers' mobile payment systems otherwise deficient in the extant literature.

Theoretical Background

Expectation Confirmation Model

Based on the theoretical expansion of the expectation-confirmation theory (ECT) (Anderson & Sullivan, 1993; Oliver, 1980), ECM (Bhattacharjee, 2001) is a post-acceptance model of technological continuity. First introduced in the literature on consumer behavior, ECT (Oliver, 1980) asserts that consumers' intention to repurchase is dependent on their level of post-adoption satisfaction. In theory, post-adoption satisfaction was proposed to be contingent upon positive disconfirmation between perceived performance and pre-adoption expectancies (Liao et al., 2009; Oliver, 1980). The ECM propounded by Bhattacharjee (2001) proposed that the continuance intention of technology depends upon post-adoption usage satisfaction and ex-post perceived usefulness (post-consumption expectation). Furthermore, user satisfaction depends upon the confirmation of ex-ante expectations after adoption and ex-post perceived usefulness, where ex-post expectation (perceived usefulness in IS continuance) is formed on confirmation of ex-ante expectations after adoption.

The following is a definition of the ECM constructs : (a) According to Oliver (1981, p. 29), satisfaction can be defined as “the summary of the psychological state resulting when emotion surrounding disconfirmed expectations is coupled with the consumer's prior feelings about the consumption experience.” (b) According to Bhattacharjee (2001, p. 366), confirmation is “a cognitive belief (the extent to which users' expectation of technology use is realized during actual use) derived from prior technology use.” (c) According to Bhattacharjee (2001, p. 356), perceived usefulness in ECM is “the cognitive belief of the ex-post expected benefit of technology use.”

Proposed Model and Hypotheses for Retailers' Mobile Payment System Continuance

The present study utilizes the theoretical concepts of ECT and ECM to develop a robust research framework to predict brick-and-mortar retailers' (*hereafter* retailer) post-adoption continuous intention of the mobile payment system. The constructs in this study were borrowed from ECM, i.e., satisfaction (SAT), perceived usefulness (PU), confirmation (CON), and continuous intention (CI). The following sub-sections explain ECM constructs in the retailers' mobile payment system CI context and conjectured relationships among them.

The Causal Relationship Between Satisfaction and Continuous Intention

Retailers' CI of mobile payment systems can be understood as the long-term or sustained use of mobile payment systems to complement cash acceptance or conventional payment acceptance methods (Bhattacharjee, 2001; Guo & Bouwman, 2016). In the extant literature, the positive association between SAT and CI was found in various technology contexts, such as in fitness apps (Cai et al., 2021), mobile banking (Foroughi et al., 2019), gamification apps (Huang et al., 2019), smart wearable devices (Park, 2020), e-learning (Suzianti & Paramadini, 2021), and mobile taxi booking app (Weng et al., 2017). However, few studies contradict this positive relationship. The findings of the study on the learning management system by Zararavasan and Ashrafi (2019) presented a non-significant association between SAT and users' CI of the learning management system.

In the digital payment context, for the retailers, the market is occupied by companies offering digital payment services with claimed benefits of convenience and safety but also unknowingly exposing retailers to the potential risk of fraud, theft, and loss of sensitive financial information. Nonetheless, SAT with the services offered by MPS encourages retailers to continue service, whereas dissatisfaction due to service failure or unpleasant experiences of fraud or security breach may lead to discontinuity after initial adoption (Ambalov, 2018; Joshi & Dabas, 2022;

Mishra et al., 2023; Yan et al., 2021). Hence, based on the arguments and findings from prior research on technology continuance, the relationship between SAT and CI of mobile payment systems for retailers is proposed as follows:

☞ **Ha1** : Retailers' SAT with mobile payment system use is positively related to their CI.

The Causal Relationship Between Perceived Usefulness and Continuous Intention

The concept of “perceived usefulness” as a belief—the cognitive component—that influences end-user computing acceptance intentions was first described by Davis et al. (1989) when they established the technology acceptance model (TAM) (Davis, 1989). As per Bagozzi (1981), perceived utility in ECM is a belief component that directly influences CI (a conative component) and is derived from TAM. Positive correlations between post-purchase PU and continuation behavior have been observed in the literature on technology continuance, particularly in research on mobile banking applications (Foroughi et al., 2019), applications for on-demand ride services (Malik & Rao, 2019), wearable smart devices (Park, 2020), smartphone taxi booking apps (Weng et al., 2017), smartphone banking services (Susanto et al., 2016), and social networking site continuance (Lin et al., 2017). Conversely, a few studies observed that PU may not lead to continuance intention. Bölen (2020) found that there is little relationship between post-adoption perceived utility and continuing intention for smartwatch CI. The argument given by the author was that users do not find much value in terms of features and ability to use apps compared to smartphones. Despite this, most prior studies suggest that PU motivates users to continue using IS (Ambalov, 2018). Thus, due to post-usage PU in terms of benefits derived from mobile payment systems and further experiencing efficiency, retailers may perceive mobile payment systems as highly useful for their business, resulting in post-adoption continuance. Hence, based on the above arguments and evidence, we propose a positive association of post-adoption PU of MPS on retailers' CI and further hypothesize it as follows:

☞ **Ha2** : Retailers' post-adoption PU of mobile payment systems is positively associated with continuance intention.

The Causal Relationship Between Perceived Usefulness and Satisfaction

PU is ex-post expectations (Bhattacharjee, 2001). Expectations are created by one's prior experience with products and services, word-of-mouth content, marketing communication, or individual post-adoption experience. The ex-post expectation with PU is the user's belief of utility that using a system will help them to attain more gains in future job performance (Brown et al., 2014; Venkatesh et al., 2003). In the technology continuance context, the corresponding user satisfaction is postulated as a proportional function of the discrepancy between the expectation of usefulness and technology performance (Liao et al., 2009). The discrepancy can be positive, zero, or negative. The favorable condition is that performance meets the ex-post expectation of usefulness, while an unfavorable condition is that perceived performance falls short of the ex-post expectation. In the former, the user is satisfied, while the later user is dissatisfied (Liao et al., 2009).

Susanto et al. (2016) found that smartphone banking services positively correlated with post-purchase PU in the literature that is currently available on technology continuance, a gamified mobile application by Aydinlihyurt et al. (2021), mobile commerce by Chong (2013), social networking services by Kim (2011), online travel services by Li and Liu (2014), social networking site continuance by Lin et al. (2017), and mobile instant messaging services by Oghuma et al. (2016). Most recently, Mishra et al. (2023), in their meta-analysis of 194 articles on IS continuance, established a significant positive association between PU and SAT. Few articles are also available that established an insignificant association between ex-post PU and SAT, such as Alraimi et al. (2015) in massive

open online courses (MOOCs) and Shang and Wu (2017) in the mobile shopping context. In both studies, the authors argued that the availability of various platforms with similar capabilities and features makes it difficult to differentiate their usefulness. Thus, the PU of the service diminishes when multiple platforms with similar features and benefits are available. Therefore, in this line of argument, the ex-post expectation of usefulness in terms of benefits or utility derived from mobile payment systems may satisfy retailers. Nevertheless, the accessibility of rival systems that offer comparable digital payment features—such as credit and debit cards—may potentially lessen the perceived value. Thus, in light of the aforementioned arguments and data, we further hypothesize that there is a positive correlation between ex-post-perceived MPS utility and retailers' SAT.

✍ **Ha3** : Retailers' post-adoption PU of mobile payment systems is positively associated with SAT.

The Causal Relationship Between Confirmation and Satisfaction

The ECT proposed by Oliver (1980) suggests a connection between customer SAT and disconfirmed expectations. As the ratio of ex-ante anticipation to ex-post performance, expectancy-disconfirmation was theoretically explained in this theory. Subsequently, SAT increases (decreases) as this ratio increases (decreases). Later on, Bhattacharjee (2001) adapted this expectancy-disconfirmation analogy to explain users' SAT in his IS continuance model. Bhattacharjee's (2001) ECM posits that user SAT is the evaluative response to positive expectation disconfirmation. The positive disconfirmation or “confirmation” of expected benefit entails SAT, while negative disconfirmation results in dissatisfaction. According to the classic cognitive model, in this instance, contentment (an affect component) is influenced by belief (a cognitive component) through CON (Lavidge & Steiner, 1961).

In the extant literature on technology continuance, articles available establishing a positive association between CON and SAT are Abdul-Halim et al. (2022) on e-wallets, Cai et al. (2021) on fitness apps, Foroughi et al. (2019) on mobile banking, Aydinliyurt et al. (2021) and Huang et al. (2019) on gamification app, Malik and Rao (2019) on-demand ride-hailing services, Poromatikul et al. (2020) on mobile banking application, Weng et al. (2017) on mobile taxi booking application, Alraimi et al. (2015) on MOOCs, and Susanto et al. (2016) on smartphone banking services established a positive association. Ambalov (2018) and, most recently, Mishra et al. (2023), in their meta-analysis on IS continuance, established a significant positive association between CON and SAT. Few articles are available establishing an insignificant association between CON and SAT, such as Park (2020) in smart wearable devices. The argument supporting insignificant association was the complete mediation of PU, perceived ease of use, and perceived enjoyment. Another study is by Eren (2021) on chatbot use in banking. The reason attributed was that ex-ante expectation with chatbot service was shaped by prior experience with similar technology like mobile banking and internet banking, contributing to ex-post-performance disconfirmation. In terms of the benefits or usefulness anticipated from mobile payment systems, using evidence from the literature to support arguments for disconfirmation of ex-ante expectations on ex-post performance may result in retailers' pleasure or discontent. Also, prior experience with similar digital payment services like credit and debit cards may have influenced the ex-ante expectation, resulting in positive or negative disconfirmation on ex-post performance. Hence, based on the arguments and evidence, we propose a positive association of CON with retailers' SAT and further hypothesize it as follows:

✍ **Ha4** : Retailers' CON of the mobile payment system is positively associated with SAT.

The Causal Relationship Between Confirmation and Perceived Usefulness

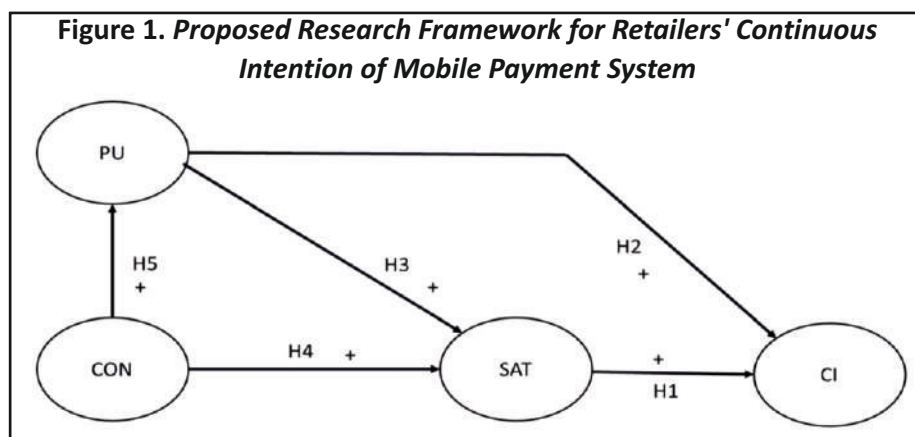
Ex-post PU was added to Bhattacharjee's (2001) ECM model by demonstrating the validity of post-consumption

anticipation for SAT and IS continuation using TAM (Davis et al., 1989) and ECT (Oliver, 1980). Furthermore, to improve the explanatory power of his model linked this ex-post expectation (perceived usefulness) with confirmation (positive disconfirmation of ex-ante expectation). According to Bhattacharjee (2001), PU and perceived ease of use are primary expectations with IS acceptance, so it is plausible that ex-post disconfirmation can distort or modify this ex-ante expectation into a new belief in ex-post expectation. The ex-ante anticipation, interestingly, is the first cognitive assumption that consumers hold when they are unaware of what to anticipate from using technology. Furthermore, disconfirmation follows when the ex-post performance and ex-ante expectations are compared after initial adoption. On disconfirmation (positive or negative), a rational user modifies their expectations consistent with the reality faced. This phenomenon gets support from cognitive dissonance theory (Festinger, 1957), which postulates that individuals experience cognitive dissonance if their perception is disconfirmed; however, they try to adjust it to be consistent with reality.

The literature on technology continuance currently in the publication includes studies by Alraimi et al. (2015) on MOOCs, which show a favorable correlation between CON and ex-post-assessed utility. Smartphone banking services by Susanto et al. (2016), gamification app by Aydinlihyurt et al. (2021), mobile commerce by Chong (2013), mobile banking by Foroughi et al. (2019), social networking services by Kim (2011) and Lin et al. (2017), online travel services by Li and Liu (2014), mobile instant messaging by Oghuma et al. (2016) ; also, Ambalov (2018) and most recently Mishra et al. (2023) in their meta-analysis on IS continuance established a significant positive association between CON and SAT. Few articles also established an insignificant association between CON and PU. Such as Suzianti and Paramadini (2021) in the continuance of e-learning in primary school. The plausible reason was that the e-learning system does not meet the ex-post usefulness because it cannot be effective compared to classroom teaching. Using data from the literature and the particular claim made by Foroughi et al. (2019) in the context of mobile banking, consumers in the pre-adoption stage are unsure about the use of mobile banking because they see it as a substitute for going to a physical branch. However, post-adoption, the perception of the usefulness of mobile apps increased significantly. In the retailers' use of mobile payment system context, the ex-ante expectation is based on word-of-mouth, promotion, or prior experience with similar technology. On adoption, positive disconfirmation will tend to elevate ex-post usefulness, while negative disconfirmation reduces such perception of usefulness. Therefore, based on the above arguments and evidence, we propose a positive association of CON with retailers' PU and further hypothesize it as follows:

➤ **Ha5** : Retailers' CON of mobile payment systems is positively associated with PU.

Figure 1 presents the research framework adapted from ECM (Bhattacharjee, 2001) to understand the mobile payment system continuance intention of brick-and-mortar retailers, the corresponding path in the model



(CON → PU, CON → SAT, PU → SAT, PU → CI, and SAT → CI) are the hypothesized association between the constructs.

Research Methodology

Cross-sectional research was designed to study the brick-and-mortar retailers' CI of mobile payment systems. The conceptual model for the study was adapted from Bhattacharjee's (2001) ECM. The hypotheses were framed based on the evidence of conjectured relationships among constructs available in the literature on continuance intention. The hypotheses were empirically validated from data collected through a sample survey of Indian brick-and-mortar retailers using a mobile payment system. The hypotheses were tested using a two-step method (Anderson & Gerbing, 1988). The measurement model was used to test the convergent and discriminant validity of the measure, and structural equation modeling was used to test the hypothesis using AMOS 23 (co-variance-based SEM).

Additionally, before proceeding with confirmatory factor analysis (CFA) and hypotheses testing using SEM, the collected data were verified for the absence of multicollinearity and common method bias. The two-step SEM approach (CFA and SEM-based hypothesis testing) was then used to confirm the lack of multicollinearity and common method bias.

Product/Service Category : Mobile Payment System

India is witnessing a phenomenal rise in mobile payment users (Singh & Sinha, 2020; Singh, 2024). The mobile payments system offers users payment services using mobile phone applications (Cao, 2021). The Reserve Bank of India categorizes mobile payment systems under prepaid instruments, further classified into three types, i.e., closed, semi-closed, and open prepaid instruments. The closed and semi-closed mobile payments system had restrictions regarding fund transfer or purchasing compared to the open category. According to Tripathi et al. (2021), the open-category mobile payment system facilitates cash withdrawals, online transactions, and fund transfers. The mobile payment providers in India are Paytm, PhonePe, Google Pay, BharatPe, Freecharge, Mobikwik, Oxigen, mRuppee, Airtel Money, Jio Money, SBI Buddy, Itz Cash, Citrus Pay, Vodafone M-Pesa, Axis Bank Lime, ICICI Pockets, and SpeedPay (http://cashlessindia.gov.in/mobile_wallets.html).

According to the Reserve Bank of India, efficient digital payment systems improve financial inclusion, foster national economic development, and support financial stability. Digital payment systems ensure safe, secure, reliable, accessible, affordable, and efficient payments (Department of Payment and Settlement Systems, Central Office, Reserve Bank of India, 2022). According to the Department of Payment and Settlement Systems, Central Office, Reserve Bank of India (2022) report, over 26 crore digital payment transactions are processed daily by payment systems in India. The COVID-19 pandemic, in general, is anticipated to contribute maximally to the growth of digital payment system use due to the habit of making and accepting payments during the lockdown and further implementation of social distancing and model behavior (Sinha & Singh, 2023). Post-COVID-19 pandemic, the Reserve Bank of India is anticipating a new challenge in further onboarding and retaining existing customers in digital payments, including merchants who are important stakeholders (Department of Payment and Settlement Systems, Central Office, Reserve Bank of India, 2022; Upadhyay et al., 2022).

Consumers' adoption of digital payment systems is more than embarking on the latest technology (Singh & Sinha, 2020). Madan and Yadav (2016) claimed that users' lifestyles and demands for comfort and convenience had an impact on the initial uptake of mobile payment technology by customers (Chawla & Joshi, 2019; Gupta & Arora, 2020). The adoption of the mobile payment system by brick-and-mortar retailers was not only due to the pandemic but also due to permanent changes in customer lifestyle (carrying e-wallets on the smartphone) and

digital payment preferences (Singh & Sinha, 2020). Additionally, these retailers can connect with nearby retail customers who are hesitant to visit the store by using the mobile payment system to deliver requested goods to them (within the city or region) and collect payment online.

According to Mishra et al. (2023), technology's success depends not only on its fast rate of diffusion but also on its continued usage after initial adoption (Yan et al., 2021). Therefore, retailers and customers need to be in a close-fitting network for the success of a mobile payment system. Customers willing to make digital payments at the point of sale or order goods remotely need to be accepted by retailers to deliver customers' best shopping experience (Sinha & Singh, 2023). Hence, the retailer's CI is a prerequisite for: first, the success of mobile payment technology; second, achieving a less-cash economy; third, national economic development and financial stability; and fourth, the best shopping experience for customers. Understanding the fundamental factors that underpin brick-and-mortar shops' continued intention to use the mobile payment system is vital in light of these.

Instrument Development

For this study, a survey questionnaire was developed in two sections. The first section asked about the details of brick-and-mortar retailers, like name, address, merchandising, floor area of the shop, mobile payment system use, monthly transactions through the mobile payment systems, and duration of usage. The second section determined the retailer's CI of the mobile payment system. The constructs in the study were adapted from ECM (Bhattacharjee, 2001). ECM had four constructs, namely CI, SAT, PU, and CON. All the item scales used by Bhattacharjee (2001) and Liao et al. (2009) for constructs CI, PU, COM, and SAT were modified to meet the study objective, i.e., on retailers' mobile payment systems. In the study, all the scale items were measured on a 5-point Likert scale ranging from *strongly disagree* to *strongly agree*. Scales were modified in consultation with two peer academic professionals from the information system and marketing domain. The questions (items) in the questionnaire were both in English and Hindi. The scale items were first prepared in English and then translated into Hindi by a language department peer academic professional. For content validity, the questionnaire was piloted and given to 60 physical merchants. The Appendix contains the scale items that were used in the study.

Data Collection

To statistically investigate the Indian brick-and-mortar retailers' continuance usage intention of the mobile payment system, it was imperative to select the sample size and unit for a survey that is a good representation of Indian brick-and-mortar retailers for plausible statistical inference (Raman & Aashish, 2021). The population or sampling frame was the brick-and-mortar retailers in India who installed a mobile payment system (QR code or mobile number) in their shop and accepted payments digitally from customers through the mobile payment application. Bhattacharjee (2001) stated that the first requirement for examining respondents' intention to continue using technology is their initial acceptance of it. The data for the study from respondents were collected by recruiting field investigators. They were responsible for providing a questionnaire to retailers and collecting it. The sampling design was a "multi-stage random sampling" approach. This sampling method gives every population unit an equal chance of being included in the sample (Mishra et al., 2021).

The geographical coverage of the study area is India, a union of 28 states and 8 union territories with 766 districts (as of August 1, 2022). Indian states are grouped into six zones: North Zone, North East Zone, Central Zone, Eastern Zone, Western Zone, and South Zone (https://en.wikipedia.org/wiki/Administrative_divisions_of_India). For recruiting retailers for the survey, five zones out of six were randomly selected at the first stage of sampling. Additionally, eight Indian states were chosen for the following phase, which involved selecting at least one state from each zone that was chosen. In the third

stage, taking at least one district from each selected state in the second stage, a total of 11 districts of India were selected. Finally, in the fourth stage, the field investigator randomly visited 100 retail shops from each city for the survey. A total of 1,100 questionnaires were distributed to retailers based on the sampling inclusion criteria. A total of 385 minimum-filled questionnaires were intended to be collected from the sample unit for the study. The minimum sample size ($n = 385$) needed for the study was determined using formulae $n = Z^2 p (1-p)/m^2$, where, $Z = 1.96$ for a 95% confidence level, $p = 0.5$, m (margin of error) = 0.05 with 95% confidence interval (Krejcie & Morgan, 1970). Data were collected from May to August 2022. Four hundred fifty-two filled questionnaires were returned, i.e., a 41% response rate was observed. Next, 452 filled questionnaires were used for statistical-based screening (outlier and CMB test). The apprehension of divulging financial and commercial details to an unidentified individual was the prevalent cause for the lack of response. The stores' profiles are summarized in Table 1.

Table 1. Respondents (Retailers' Profile)

Attributes	Frequency	Percentage
State		
Bihar	65	14.4
Chhattisgarh	44	9.8
Haryana	85	18.9
Madhya Pradesh	79	17.6
Meghalaya	30	6.7
Rajasthan	71	15.8
Telangana	33	6.9
Uttar Pradesh	45	10.0
Districts		
Ajmer	34	7.6
Bilaspur	44	9.8
Hansi	85	18.9
Hyderabad	31	6.9
Kanpur	28	6.2
Mathura	17	3.8
Patna	65	14.4
Rewa	53	11.4
Sheopur	28	6.2
Shillong	30	6.7
Tonk	37	8.2
Shop Area (Size in Square Feet)		
Less than 180 sqft	243	53.8
Between 181 sqft and 360 sqft	206	45.6
361 sqft and above	3	0.7
Monthly Transaction (in Indian Rupees)		
Less than 50,000 INR	273	60.2
Between 50,000 INR and 1,50,000 INR	178	39.6

More than 1,50,000 INR	1	0.2
Usage (in Months)		
Less Than 18 Months	147	32.4
Between 18 and 48 Months	213	47.1
More than 48 Months	92	20.4
Business Merchandizing of Retail Respondents		
Electronic Goods	55	12.0
Farm Equipment	17	3.6
General Store	142	31.6
Gift & Toy Shop	16	3.6
Hardware & Paints	32	7.1
Internet Café	38	8.4
Pharma Shop	18	4.0
Readymade Garments	79	17.6
Stationery Shop	24	5.3
Others (Optical Shops, Dairy, Jewellery Shop, Auto Parts Shops, etc.)	31	6.9
	452	100.0

Analysis and Results

Common Method Bias

Podsakoff and Organ (1986) warned about the common method bias in a cross-sectional study where predictor and response item scales are in proximity. In such a situation, the common variance between constructs in the research framework can affect the hypotheses test because the variance accounted for between each set of predictor and response variables will be incorrect. In other words, common bias may risk the authenticity of the research findings. To be reliable, Podsakoff et al. (2003) suggested adopting methodological steps to avoid and statistical method to confirm the absence of common method variance in the data set.

The methodological steps followed to avoid the occurrence of method bias, i.e., ensuring the honest response to the scale items were first, anonymity was ensured; second, equal weight for all responses on the scale; third, shuffling the order of measurement items for response and predictors in the questionnaire; and fourth, participation of respondents to participate in the survey was at their will.

The latent common method variance test was employed to statistically confirm the absence of common method variance in the dataset. This test identifies the shared common variance between constructs by introducing an unmeasured common latent factor (Bagozzi, 1984). Podsakoff et al. (2012) suggested that if the common variance is less than 50% in the common latent factor, the data set is considered free from common method bias and fit for hypothesis testing.

The CFA model structural parameter with latent common factor is $\chi^2 = 138.317$; $df = 57$, $p < 0.001$, $\chi^2/df = 2.427$; $p < 0.001$; and CFI = 0.982, GFI = 0.957, AGFI = 0.931, and RMSEA = 0.056. All the model fit indices meet the cutoff criteria set for fit indexes in covariance structure analysis (see for cutoff criteria detail in Hu and Bentler (1999). Additionally, the average square factor loadings of the common latent factor were close to 0.36% less than 0.5% (Podsakoff et al., 2003). Therefore, it can be concluded from the latent method factor test that Jordan and Troth's (2020) work does not suffer from the common method bias. Furthermore, the variance inflation factor

(VIF) value was observed for testing multicollinearity, with a value of less than 3 suggesting the absence of multicollinearity. The skewness value of all the items was within the range of ± 1.96 ; the absolute kurtosis value was less than 2, suggesting normality (Hair Jr. et al., 2013). The latent common method variance factor test suggests the absence of response bias; thus, the dataset fits for SEM analysis.

Measurement Model

The two-step method (Anderson & Gerbing, 1988) states that creating a measurement model is the first stage in evaluating the factor loadings of the items, average variance, composite reliability, and convergent and discriminant validity. Furthermore, structural equation modeling can be employed to test the hypothesis on empirical verification. Consequently, IBM AMOS 23 was used to evaluate the factor loadings of the items, average variance, composite reliability, convergent and discriminant validity, and CFA (Anderson & Gerbing, 1988; Bagozzi & Yi, 1988; Fornell & Larcker, 1981), developing a four-factor measurement model.

For the four-factor measurement model, chi-square (χ^2) = 181.135; $df = 55$, $p < 0.001$, $\chi^2/df = 3.24$, and overall goodness of fit indices for model: CFI = 0.971, GFI = 0.941, AGFI = 0.903, and RMSEA = 0.069. All the evaluation criteria of overall model fitness meet the cutoff criteria set by Bagozzi and Yi (1988) for covariance-based confirmatory factor analysis, i.e., non-significance chi-square (χ^2), and CFI > 0.9; GFI > 0.9; AGFI > 0.9; RMSEA < 0.8 (Hu & Bentler, 1999).

For deciding the statistical significance of the factor loadings (λ) of each of the constructs (ξ), it is evident from Table 2 that the factor loading of each item is significant and greater than 0.7, and for the CFA model varies

Table 2. Confirmatory Factor Analysis

Construct	Indicator	Standardized Factor Loading (λ)	Error Variance ($\lambda^2 - 1$)	Construct Reliability (CR)	Average Variance Extracted (AVE)
Perceived Usefulness (PU)	PU_1	0.728***	0.530	0.85	0.59
	PU_2	0.701***	0.489		
	PU_3	0.814***	0.663		
	PU_4	0.835***	0.697		
Satisfaction (SAT)	SAT_1	0.858***	0.736	0.94	0.79
	SAT_2	0.917***	0.841		
	SAT_3	0.898***	0.806		
Confirmation (CON)	CON_1	0.847***	0.717	0.86	0.68
	CON_2	0.843***	0.711		
	CON_3	0.795***	0.632		
Continuous Intention (CI)	CI_1	0.881***	0.776	0.91	0.71
	CI_2	0.823***	0.677		
	CI_3	0.815***	0.664		

Note. *** Significant at p -values < 0.01.

Maximum likelihood ratio chi-square (χ^2) = 181.135, $p < 0.01$, $df = 55$, CFI = 0.97, RMR = 0.05, GFI = 0.94, AGFI = 0.90, RMSEA = 0.06, $\frac{\text{Chi-Square}}{df} = 3.24$

$CR = \frac{(\sum \lambda)^2}{(\sum \lambda)^2 + \sum e}$, and $AVE = \frac{\sum \lambda^2}{n}$ (n is the number of items in each construct).

Table 3. Correlation Matrix of Inter-Constructs and the Square Root of AVE in Diagonals

Construct	α	SAT	CI	CON	PU
SAT	0.890	[0.898]			
CI	0.859	0.821***	[0.849]		
CON	0.866	0.761***	0.705***	[0.827]	
PU	0.863	0.637***	0.679***	0.621***	[0.776]

Note.*** Significant at p -values < 0.

between 0.7 and 0.9. The average variance extracted (AVE) for each construct based on corresponding measurement items variance (λ^2) is more than 0.5 and varies between 0.6 and 0.8 for all constructs. According to Bagozzi and Yi (1988), the minimum threshold for factor loadings (λ) is 0.5, and the AVE is 0.50.

The composite reliability (CR) for the constructs is seen in Table 2 for PU = 0.853, CON = 0.867, SAT = 0.942, and CI = 0.917. Bagozzi and Yi (1988) suggested that for the internal structure of the model, CR should be ≥ 0.60 . A value above 0.60 indicates excellent convergent reliability. Also, the reliability test Cronbach's alpha (α) (Cronbach, 1951) for PU = 0.863, CON = 0.866, SAT = 0.890, and CI = 0.859. According to Hair Jr. et al. (2013), the minimum threshold for Cronbach's alpha (α) is 0.70. A value of 0.70 indicates excellent reliability.

The criteria proposed by Fornell and Larcker (1981) were used to evaluate the discriminant validity; specifically, the larger square root value of a construct AVE corresponding to its inter-construct correlations establishes discriminant validity, demonstrating that the variable measurement items share more variance with the construct they are associated with when compared with other constructs. It is evident from Table 3 that the square root estimate of AVE for CI, SAT, CON, and PU (in diagonal) corresponding to its inter-construct correlation is greater, establishing discriminant validity.

Hypotheses Testing

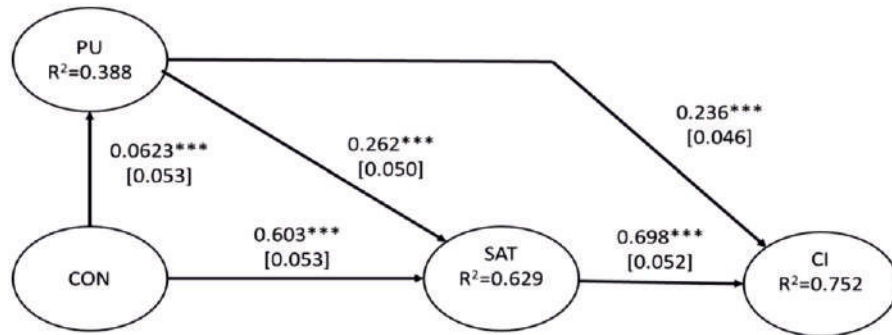
The first objective of this study is to understand the underlying determinants of retailers' continuing intention toward the mobile payment system. To accomplish this objective, a research framework was developed adapting the expectancy-confirmation model of IS continuance (ECM), (Bhattacharjee, 2001). The path of the model (see Figure 1) is SAT \rightarrow CI denotes Ha1, PU \rightarrow CI denotes Ha2, PU \rightarrow SAT denotes Ha3, CON \rightarrow SAT denotes Ha4, and CON \rightarrow PU denotes Ha5 hypotheses, respectively. All the hypotheses were assumed to be positively and significantly associated with the related constructs. The estimation of path analysis and hypotheses test are given in Figure 2 and Table 4.

The hypotheses (Ha1, Ha2, Ha3, Ha4, and Ha5) were tested using path analysis based on covariance-based SEM using IBM AMOS 23 (Anderson & Gerbing, 1988). The model (SEM) fitness indices chi-square (χ^2) = 175.038, df = 58, p < 0.001, χ^2/df = 3.01, and overall goodness of fit indices for the model are: CFI = 0.973, GFI = 0.942, AGFI = 0.905, and RMSEA = 0.067. All the evaluation criteria of overall model fitness meet the cutoff criteria set by Bagozzi and Yi (1988) for covariance-based structural analysis, i.e., non-significance p > 0.05, chi-square (χ^2), CFI > 0.9, GFI > 0.9, AGFI > 0.9, and RMSEA < 0.8 (Hu & Bentler, 1999).

For hypotheses testing, the regression weight (standardized) of the path and corresponding standard error and p -value were consulted to make the decision (see Figure 2 and Table 4). The estimate of regression weight for path SAT \rightarrow CI is positive and statistically significant ($\beta_{SAT \rightarrow CI}$ = 0.698, std. error = 0.52, p < 0.01). The associating hypothesis (Ha1) that retailers' SAT with the mobile payment system positively and significantly affects their CI is accepted.

As shown in Figure 2 and Table 4, the regression weight for path PU \rightarrow CI is also found to be positive and statistically significant ($\beta_{PU \rightarrow CI}$ = 0.236, std. error = 0.46, p < 0.01). The associating hypothesis (Ha2) that retailers'

Figure 2. Structural Model Results for Retailers' Continuous Intention of Mobile Payment System



Note. The results represent the unstandardized path coefficients of the structural model. Model fit: ($\chi^2 = 175.038$; $df = 58$), $p < 0.001$, $\chi^2/df = 3.01$; GFI = 0.942; CFI = 0.973; TLI = 0.97; RMSEA = 0.067), *** $p < 0.01$ value in the parenthesis reports std. err. value of the estimate; solid lines denote significant estimates at 5%.

Table 4. Hypotheses Testing

Path	Estimate (Standard)	Std. Error	t-value	Hypotheses test
Direct Effect Estimate (Hypotheses Testing)				
Ha1: SAT → CI	0.698***	0.052	11.84	Accepted
Ha2: PU → CI	0.236***	0.046	10.85	Accepted
Ha3: PU → SAT	0.262***	0.050	5.02	Accepted
Ha4: CON → SAT	0.603***	0.053	5.18	Accepted
Ha5: CON → PU	0.623***	0.053	14.17	Accepted

Note. *** $p < 0.001$.

ex-post PU expectation of mobile payment system positively and significantly affects their CI of mobile payment system is accepted. Figure 2 and Table 4 illustrate that the regression weight for path PU → SAT is positive and statistically significant ($\beta_{PU \rightarrow SAT} = 0.262$, std. error = 0.50, $p < 0.01$). The associating hypothesis (Ha3) that retailers' ex-post PU of mobile payment system is positively and significantly affecting their SAT with mobile payment system is accepted. It is also discovered that the regression weight for path CON → SAT is positive and statistically significant ($\beta_{CON \rightarrow SAT} = 0.603$, std. error = 0.53, $p < 0.01$) (refer to Figure 2 and Table 4). The associating hypothesis (Ha4), i.e., retailers' ex-post CON of ex-ante expectation from mobile payment system usage positively and significantly affects their SAT with the mobile payment system is accepted. Referring to Figure 2 and Table 4, the regression weight for path CON → PU is positive and statistically significant ($\beta_{CON \rightarrow PU} = 0.623$, std. error = 0.53, $p < 0.01$). It is also acknowledged that merchants' favorable ex-post disconfirmation of their ex-ante expectations from using mobile payment systems positively and considerably influences their new ex-post expectations of the usefulness of mobile payment systems. This is known as the association hypothesis (Ha5).

Discussion

This study proposed understanding the role of expectation confirmation on SAT and the CI of mobile payment systems by Indian brick-and-mortar retailers. A preliminary review of the extant literature on the CI of technology was conducted to establish the association. The review indicated ECM (Bhattacharjee, 2001) as the most robust

and preferred model by researchers to study technology continuation intention in various contexts (Gadhiya & Panchal, 2021; Panigrahi et al., 2018). The findings indicate that the retailers' SAT with mobile payment usage positively impacts CI (Chakraborty, 2021; Chawla et al., 2022; Kumar & Usman, 2024; Tabeck & Singh, 2022). Thus, when retailers are satisfied with the performance of the mobile payment system, they are more likely to continue it. This result confirms the claim of previous researchers about the repurchase or CI (Bhattacharjee, 2001; Oliver, 1980), continuous engagement (Hollebeek & Belk, 2021), or frequent usage (Alalwan, 2020) of the product and services as long as their evaluative judgment is positive. Also, this finding corroborates the premises of classical cognitive theory that SAT and affective components influence behavior (conative component) (Lavidge & Steiner, 1961).

The study also suggests that the retailers' ex-post PU of mobile payment usage positively impacts CI. The retailers hold a post-adoption belief that the mobile payment system is useful and would be productive for them, i.e., the ex-post expectation of mobile payment technology will create value for them (network externalities), thus increasing the likelihood of continuance intention. This result is supported by the previous research on mobile food ordering apps, which emphasizes customers' tendency to cognitively evaluate the future benefits accrued from continuous product or service usage (Alalwan, 2020). This future expectation gives the customer a reason to stay with the service. Additionally, this result of a positive relationship is supported by Liao et al. (2009)'s "technology continuance theory."

Furthermore, the result of the hypothesized association between ex-post PU of mobile payment systems for retailers and SAT with mobile payment usage established a significant and positive relationship. This result is supported by the findings of Karahanna et al. (1999) that after adoption, retailers gain experience with the mobile payment system, and ex-ante belief of the usefulness of MPS seems to be resolved and displaced by more instrumental beliefs (Thong et al., 2006). This has a significant effect on retailers' perceptions of the mobile payment system (an affect component). According to Lavidge and Steiner (1961), the belief in perceived utility is a cognitive component that precedes SAT since post-adoption attitude and SAT are affect components of classical cognitive theory.

The result further indicates that the retailers' CON of ex-ante expectations of the mobile payment system significantly and positively influences their SAT. The retailers' pre-adoption expectation of a mobile payment system is a cognitive belief of benefits formed due to word-of-mouth publicity, marketing communication, or by themselves, based on experience with similar technology. On post usage, the comparative judgment of ex-ante expectation with ex-post performance on positive CON increased SAT. Oliver's (1980) expectancy-confirmation theory is supported by the significant influence of CON on SAT, which also reinforces Bhattacharjee's (2001) findings about the application of IS continuation.

At the same time, the study also established that retailers' CON of ex-ante expectation with mobile payment system usage is significantly and positively associated with ex-post PU. Ex-post PU represents a new post-consumption expectation with the mobile payment system usage. The retailers' comparative judgment of pre-adoption beliefs with mobile payment system, on actual usage, following positive disconfirmation displaces the ex-ante expectations by more subservient consequence, i.e., an expectation of assured benefits. The findings by Karahanna et al. (1999) that post-adoption CON of ex-ante belief (usefulness) appears to be resolved and replaced by a more instrumental belief of usefulness provide support for this outcome. Bhattacharjee (2001), in the IS continuance context, also related CON to PU. He explained that users without experience perceive low usefulness because they are unsure about what to expect from the use. Nevertheless, on usage and CON of this low initial PU supersede this with elevated realizable expectations (Pasricha et al., 2020; Reddy & Rao, 2021; Yoo & Kim, 2020).

Managerial Implications

The results of this study point to the critical importance of ex-post expectations and SAT with the mobile payment system for retailers' ongoing intention to use it. Additionally, this study clarifies the significance of positive disconfirmation in producing ex-post expectation and SAT, which in turn influences CI. A significant factor influencing continuation intention is retailers' SAT with mobile payment solutions. Users' SAT depends upon their CON of expectations derived from mobile payment system usage. The expectations in the context of mobile payment systems for retailers are the functional benefits they derive from mobile payment system usage. It is advised to the service provider to (a) design user-friendly apps, (b) ensure retailers on security, safety, and privacy of using the mobile payment system, (c) provide service quality with new and differentiated features, (d) ensure smooth service experience with effective support from the mobile payment ecosystem (smartphones compatibility, compatibility with technology engaged by financial institution), and (e) responsiveness to complaint or usage difficulties communicated. Second is the emotional benefit that they derive from mobile payment system usage. The “comfort of digital transaction” gives shops emotional value; hence, it is recommended that service providers make sure network externalities (consumers and merchants) have a hassle-free service experience. Third is the social benefit derived from the mobile payment system used in building social relationships with customers. Usually, during the transaction, the customer credentials (mobile number) are shared; this may be helpful for further strengthening the relationship with the customer by offering customized products/services to the target consumer. It is advised to the service provider to design the application so that the retailers can unleash the benefits of customer relationship management through their mobile application. Mobile payment applications offer them services like group messaging, customer reminders, and automated season greetings. Fourth is the conditional benefit that they derive from mobile payment system usage. The conditional benefit is the mobile payment system's utility in different circumstances. It is advised to the service provider to design mobile applications for retailers with a broad range of usability, such as accepting payment through mobile payment systems from diversified technological sources (e.g., credit cards, debit cards, and tokens), availability of the in-app facility to transfer money to the bank and other financial/insurance institutions for a loan payment or purchasing insurance, micro credits or loans facility on figure tips, availability of the in-app facility to arrange withdrawal of cash from bank ATMs, and facility for downloading transaction details with global acceptance format, i.e., can be used in accounting software (Tally, MS-excel) helpful in auditing and tax estimation.

Another factor to be taken with utmost care for retailers' CI of mobile payment system usage is ex-post expectation. Ex-post expectations substitute the retailers' ex-ante expectations on positive disconfirmation changes. In order to meet specific expectations or cognitive biases, retailers deploy mobile payment systems on their property. For example, retailers believe that installing a mobile payment system will increase their sales volume during the COVID-19 pandemic (Singh, 2024) and afterward, consumers are habituated to prefer digital payments in the wake of preventing the COVID-19 virus spread. Retailers now expect incentives, volume-based discounts on service charges (transaction charges), and loyalty freebies after positive disconfirmation. Thus, the service providers are suggested to continuously monitor the retailers' expectations of the mobile payment system, further adding these to the list of customer values offered. This list needs to be revised frequently; the discrepancy in expectation fulfillment would result in discontinuity of system usage.

Next, based on this study's findings, the outcome of cognitive appraisal or judgment of ex-ante expectation and ex-post performance (i.e., confirmation) is an important factor in taking care of retailers' SAT and CI. The ex-ante expectation is a cognitive belief formed by word-of-mouth (social interaction), mass media, and experience from similar technology. To ensure positive disconfirmation on ex-post performance, it is important to control the retailers' ex-ante belief that it should not be based on false premises or exaggerated claims (marketing promotions, publicity, or propaganda). It is also important to monitor word-of-mouth through field visits and e-word-of-mouth

in social media through text analytics and data mining. Intervention is suggested if any false or exaggerated claims are being circulated. It is also recommended that service providers teach shops about the use of digital payment technology and educate them about it. Additionally, while describing the scope of the installation service, be truthful. A further skewed ex-post expectation of performance and disappointment would arise from any cognitive belief difference between the ex-ante expectation of performance and the ex-post experience of performance.

Conclusion

This study aims to understand the underlying dynamics of retailers' CI of the mobile payment system. This study attempts to fill the gap in extant literature otherwise lacking on retailers' continuance intention. The study also responds to the call from economic and research institutions to study the SAT and CI of brick-and-mortar retailers, an enabler of the digital economy, by accepting digital payments.

The expectancy-confirmation model of IS continuance of Bhattacharjee (2001) was adapted to further the study with constructs SAT, PU, CON, and CI. The relationship between the constructs and response variable CI was hypothesized in the context of the mobile payment system. The CB-SEM path analysis established a significant association between the constructs ($CON \rightarrow PU$, $CON \rightarrow SAT$, $PU \rightarrow SAT$, $PU \rightarrow CI$, and $SAT \rightarrow CI$), accepting all hypotheses. The study significantly contributes to the extant literature on CI. Furthermore, suggestions conveyed to the MPS service providers through this article will benefit them.

Limitations of the Study and Future Research Directions

The notable strength of this study is the sample frame of retailers using mobile payment systems from different regions of India. The study included a large sample unit of brick-and-mortar retailers from the Indian sub-continent that are otherwise generally considered difficult to approach and gain access to. Nevertheless, despite difficulties in collecting responses, the advantage of a large sample collected from different regions is that it increases the heterogeneity, further increasing the ability to generalize the findings in a national context. Furthermore, the research design was carefully considered. Efforts were made to reduce any possible constraints related to the approach. The survey was conducted carefully to minimize sampling and non-response bias (missing data). The survey tool was designed by modifying pre-validated scale items; field investigators made efforts to minimize the common method bias. In addition, the discriminant and convergent validity of the constructs were tested, and the absence of the common method bias was verified by modeling the latent common factor method. Although this study's findings align with the literature, the cross-sectional research design has certain limitations since the study variables are collected at a single time and mostly self-reported, leading to limited inference regarding causality. Next, though due care was taken to minimize the common method bias through procedural control, the possibility of error cannot be completely ruled out. Future studies are advised to understand and test the relationship explored in this study through longitudinal studies and experimentation.

The study also transpires interesting possibilities for future research. Studies in the future should try to include constructs, such as perception of critical mass, trust, perceived risk, perceived value, habit, experience, attachment, ex-post facilitating condition, ex-post social influence (including consumer as an important variable for social norm), and ex-post attitude to determine CI. Future research on retailers' CI can also be explored, studying the mediation effect of affect components (satisfaction and attitude) between cognitive components (ex-post PU; ex-post performance expectation) and conative components (continuous intention). Furthermore, the moderation effect of trust, perceived value, perceived risk, habit, user experience, and attachment can be verified by adding these to the research model of CI. Classical behavior intention theories and technological adoption theories can be extended to elaborate on the retailer's CI. Finally, this study was conducted in a particular

national context (i.e., India). The study can be replicated in other developed and developing countries and also in different cultural contexts to validate this study's findings.

Author's Contribution

Balgopal Singh conceived the idea and developed a quantitative design to undertake the empirical study, extracted research papers with a high reputation, filtered these based on keywords, and generated concepts and codes relevant to the study design. He further verified the analytical methods and supervised the study. The survey was conducted by recruiting field investigators. The numerical computations were done by the author using SPSS 20.0. and IBM – AMOS. Balgopal Singh also edited the final manuscript.

Conflict of Interest

The author certifies that he has no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript.

Funding Acknowledgment

The author received financial support for the research from ICSSR under Grant 02/67/2021-22/ICSSR/RP/MN.

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Appendix. Questionnaire

Item Scales	
Perceived Usefulness (Bhattacharjee, 2001)	PU
I find using a mobile payment system useful in my daily business.	PU_1
A mobile payment system is very helpful to my business.	PU_2
Using a mobile payment system helps me to accomplish my transaction-related tasks more efficiently.	PU_3
Financial transactions become easier after using this mobile payment system.	PU_4
Confirmation (Bhattacharjee, 2001)	CON
My experience with using a mobile payment system is better than what I expected.	CON_1
The service level provided by the mobile payment system is better than what I expected.	CON_2
Overall, most of my expectations from using a mobile payment system were confirmed.	CON_3
Satisfaction (Liao et al., 2009)	SAT
I feel satisfied with using this mobile payment system.	SAT_1
I feel pleased with using this mobile payment system.	SAT_2
I am delighted with using this mobile payment system.	SAT_3
Continuous Intention (Bhattacharjee, 2001)	CI
I intend to continue using this mobile payment system rather than discontinue its use.	CI_1
I intend to continue using this mobile payment system rather than use any alternative means.	CI_2
I plan to use this mobile payment system more often.	CI_3

About the Author

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