

A Multifactorial Model for Consumer Behaviour and Adoption of Unique Payment Interface in India

Aswathi D. S* ¹, Abhijith ¹ and P. Balasubramanian ¹

School of Arts, Humanities and Commerce, Amrita Vishwa Vidyapeetham, Kochi, Kerala, India

Corresponding Author: aswathi.ds@gmail.com

Received: 24th April, 2026; Revised: 20th May 2026; Accepted: 30th June, 2026; Available Online: 10th July, 2026

ABSTRACT

Unique Payment Interface is a real-time payment system that allows users to instantaneously transfer funds from one bank account to another through a mobile-based platform. As of May 2021, the platform has 100 million monthly active users in India. Thus, this study investigates the factors influencing consumers' adoption of UPI payment systems in India. A comprehensive model integrating eight key consumer-related variables affecting the adoption of mobile payment systems is proposed based on a broad literature review of mobile technology adoption. The results showed that facilitating conditions and behavioural intention impacted the actual behaviour of the customers. Besides, effort expectancy, social influence, performance expectancy, and trust influence behavioural intentions. This study offers valuable insights regarding the usage of UPI to researchers, consumers, policymakers, and digital payment service providers.

Keywords: Unified Payment Interface, Consumer Behaviour, India, Technology Adoption, Multiple Linear Regression

How to cite this article: Aswathi DS, Abhijith, Balasubramanian P, A Multifactorial Model for Consumer Behaviour and Adoption of Unique Payment Interface in India *Int J Drug Deliv Technol.* 2026;16(7): 398-406. DOI: 10.25258/ijddt.16.7.42

Source of support: Nil.

Conflict of interest: None

1. INTRODUCTION

India is the second-fastest-growing digital economy in the world [1]. The Indian Ministry of Electronics and Information Technology expects the contribution of its digital economy of \$200 billion of economic value to develop to \$1 trillion by 2025. Unique Payment Interface is a real-time payment system that allows users to instantaneously transfer funds from one bank account to another through a mobile-based platform. UPI, as an idea, was first floated by the National Payments Corporation of India and is regulated by the Reserve Bank of India and the Indian Bank Association. NPCI is owned by an association of central banks operating in India. The payment system uses personalised and unique identification to identify each user. It uses two-factor authentication to secure transactions in its network. From its humble inception in April 2016, it grew to a system with over 100 million users and over a billion transactions by October 2019. It presently handles half of all digital transactions in India. UPI as a payment system has seen its transaction value grow from \$928 million in FY17 to \$117 billion in FY19, and the volume of transactions is expected to scale up to 59.77 billion transactions by FY23 from the 5.35 billion transactions recorded in FY19 [2]. Google even recommended that the United States Federal Reserve develop and implement an instant payment system similar to India's UPI [3]. UPI as a payment system has intrigued countries worldwide [4].

India and China account for 1.47 billion e-wallet users worldwide [5]. The demonetisation of the ₹500. Moreover, ₹1,000 denominated legal tender on 8th November 2016. This single event led to an increase of 60 million e-wallet users in India over one month [5]. Before demonetisation, 85% of the transactions used cash [6]. Demonetisation's cash crunch led to a massive surge in non-cash payments. The Reserve Bank of India has given an enormous impetus to create a seamless payment system by making paying and receiving interoperable from April 2018. Securities and Exchange Board of India, as of April 2017, allowed users of e-wallets to invest in mutual funds up to ₹50,000 over a financial year [7]. A second surge in e-wallets was observed due to COVID-19, where digital payment service-providing firms saw a 50% transaction spike. Digital Payment service providers saw a 2x increase in the average transactions per user [8]. India has over 500 million smartphone users [9]. An estimated 59.03% of India's population is aged between 15 and 54 as of July 2018 [10]. This represents a fertile market for digital payment systems. The major players in India's unique payment interface payment system sphere are Paytm, Google Pay, Amazon Pay, PhonePe and RazorPay. India has around 50 Unique Payment Interface (UPI) based wallet providers [11]. Perceived ease of use, trust, facilitating conditions, security, lifestyle compatibility and perceived usefulness were the factors that have significantly impacted the consumer's intention and attitude towards using e-wallets [12]. This study focuses

*Author for Correspondence: aswathi.ds@gmail.com

on the adoption of a unique payment interface payment system by consumers from India. There are very few articles on this. The study primarily explores the factors influencing the adoption of a unique payment interface payment system in India.

2. LITERATURE REVIEW

The Technology Acceptance Model (TAM) is based on behavioural intent, which indicates an individual's willingness to execute an action/ behaviour [13]. The Unified Theory of Acceptance and Use of Technology (UTAUT) was proposed to take the adoption of technology into account [14]. The technology acceptance model has been able to predict system use [15]. Security, self-efficacy, trust, and social influence were used along with the Unified Theory of Acceptance and Use of Technology model [16]. Numerous studies have used the Technology Acceptance Model and the Unified Theory of Acceptance and Use of Technology to explain consumers' intentions and adoption. Some of these include e-payment system [17], e-commerce [18], mobile wallets [19], mobile money [20], mobile banking [21], e-governance [22], bitcoin [23]. With the exponential growth in mobile wallet users in India, it is essential to study the factors influencing the intention and attitude of the consumer. There have been previous studies [12] on the same topic, but generalising a populous country such as India would be faulty, considering states in India have more significant populations than some countries. This, along with a litany of differences in demographic, social, cultural, and economic diversity between states, makes it imperative to scrutinise whether the same factors similarly impact intention and attitude towards Unique Payment Interfaces as a payment method used across states and regions.

Multiple models have been used to attempt to explain or predict user acceptance of technology. The Unified Theory of Acceptance and Use of Technology (UTAUT) model [14] is one of the most recent works in explaining and predicting the acceptance and use of information technology by end-users. This theory examined eight different models and integrated the components of those models into a single, unified model that is more predictive than any of the individual models alone. UTAUT considered and integrated the theory of reasoned action (TRA), the technology acceptance model (TAM), the motivational model (MM), the theory of planned behaviour (TPB), a model that combined the technology acceptance model and the theory of planned behaviour (C-TAM-TPB), the model of PC utilisation (MPCU), the innovation diffusion theory (IDT), and the social cognitive theory (SCT). The constructs of each of the individual models contributed to the development of the UTAUT model. The present study uses the UTAUT model to examine Indian customers' attitudes towards acceptance of, and satisfaction with e-banking as a banking channel. Taking the supper constructs of the UTAUT model as the base and analysis of other studies undertaken in the area helps in identifying the various factors that can affect customer adaptation towards e-banking.

2.1. *Security and Privacy:*

The degree to which a particular technology is considered safe and secure is called the security of the technology [24]. Privacy and security improve user experience and significantly decrease risks [25]. Security and privacy in the data transmitted considerably impact the user's behavioural intention [24].

2.2. *Effort Expectancy:*

The way the technology can be used efficiently is called effort expectancy. It consists of the user's ability to interact with the system quickly, concisely, precisely, logically and easily [14]. Effort expectancy was used in previous studies [17]. The less effort a user has to expend to use technology, the more a user would intend to use it [26].

2.3. *Social Influence:*

Social influence is the degree to which an individual perceives that it is essential for his peers and other members to use new technology, product or service [27]. Social norms are explained in terms of source. Internal and external factors influence the user's lifestyle, which impacts the user's adoption behaviour of new technology, products, or services [28]. People close to the user generally influence the user to use new technology, products or services [14] [17].

2.4. *Performance Expectancy:*

The extent to which users believe that using e-wallets helps the user attain efficiency in settling payments [14]. The user receiving more benefits than via a pre-existing system can be termed as the performance expectancy of the technology [17]. Technology is beneficial to the user [14].

2.5. *Trust:*

The "Commitment-Trust Theory of Relationship Marketing" has aptly conceptualised one party's confidence in a medium of exchange reliability and integrity as trust [29]. An extended model of TAM was created for a study involving Canadian mobile wallet users [30]. Trust is an essential factor that drives online transactions [31]. Studies in this area have not adequately assessed the impact of trust on the intention to use e-wallets.

2.6. *Behavioural Intention:*

The willingness of the user to use a particular product or service can be considered as the user's intention [14]. Purchase intentions strongly and positively influence the user's attitude. It concurs that the user's attitude towards technology, product or service has a statistically significant impact on the purchase intention of the user with regards to technology, product or service [32]. The intention of a user to use technology, product or service has a significant correlation with user behaviour [13]. It can be generalised as the higher the user's intention, the higher the actual behaviour and vice versa.

2.7. *Facilitating Conditions:*

Technical, organisational, and social infrastructure that will assist the user in acclimatising and conveniently using

the technology are called facilitating conditions, and the relevant content and resources available on technology to help the user and its impact on their behaviour are surveyed and ascertained. The technology acceptance model framework was extended with facilitating conditions as an external variable [33].

2.8. Actual Behaviour:

The use of technology among its intended consumers can be seen as a gauge of its success [34]. The frequency of use of technology can be used as an efficient gauge to analyse the actual behaviour of the user of the technology. The use of e-wallets for settling bills acts as a target/response variable which is consistent with prior studies

2.10. Framework and hypotheses

[15], [35] and [36]. Frequent use can be essential in understanding user behaviour with new technology [37]. The feeling of comfort/positivity is also considered in relation to the user's actual behaviour [38].

2.9. Objectives of the study

- 1) To develop a model for adoption and intention to use UPI in India.
- 2) To assess the influence of factors on behavioural intention.

To assess the influence of behavioural intention and facilitating conditions on the use of UPI.

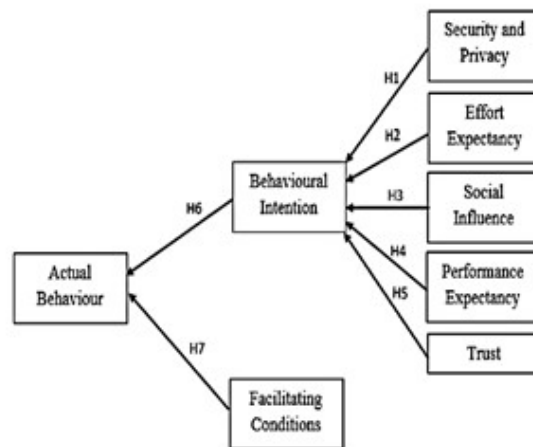


Fig 1. depicts our conceptual framework and the related hypotheses

- H1: Security and privacy, effort expectancy, social influence, performance expectancy and trust have a significant and positive impact on the intention of the user to make use of UPI.
- H2: Behavioural intention has a positive impact on the actual behaviour of the user.
- H3: Facilitating conditions have a positive impact on actual behaviour.

3. METHODOLOGY

This quantitative research involves an online survey for data collection. Online surveys provide benefits such as saving time and money by overcoming geographic distances. Scales were adopted from the literature, and once the preliminary study was ready, ethics approval was sought and received. The statements are written for each item, and the participants were required to indicate whether they agreed or disagreed with the statements on a Likert scale. UPI users are the target participants for this survey, which does not necessarily suggest that the participants have adopted the services. They are invited to participate in the survey online. A questionnaire was devised for this study. It was made of 3 segments: Segment A consisted of questions assessing the demographic profile of the respondents. Segment B

consisted of questions on knowledge about UPI, usage of UPI, and various alternative options available to the user. Segment C comprises questions on the constructs. Physical and digital options were used to gather responses. Convenient sampling (non-probability) technique was used to collect the data from respondents. Three hundred eighty-four responses from UPI users were selected as a sample for the present research work based on [39] table for determining sample size. The research data was analysed using SPSS 20.0, and the tests applied were Descriptive statistics, Cronbach's alpha, and Multiple linear regression. Every SPSS test had a specific research requirement, which helped explore the demographics and acceptance of the hypothesis. Regression Analysis determines the relationship between variables considered for the study. AMOS is used to do CFA. CFA is used to test if a factor structure fits the data.

4. RESULTS AND DISCUSSION

The characteristics of the data gathered from the respondents from various geographical locations indicated that most of the population was from a relatively younger generation. Three hundred ninety-four individuals participated in the Survey. Forty-six per cent of the participants were male. 91.4% of the respondents belonged to the 21-30 age group. 44.8% of the respondents had

post-graduate education qualifications. 72.7% of the respondents were digitally literate. In addition, 88.9% reported that they preferred Cashless payment over Cash due to the ease of use, handiness and restrictions on account of COVID-19. Most of them, i.e., 65.8% of the respondents, use Google Pay as their primary payment option, as the app is user-friendly and people trust Google as a brand. On average, participants use UPI 3-6 times a week and spend an amount of ₹500 to ₹5000. Most respondents have used UPI for over two years, coinciding with the demonetisation of large-value legal tender in India.

4.1. Hypothesis Testing using Multiple Linear Regression of Objective 1

Table 2.1 Regression Analysis			
R	R Square	Adjusted R Square	Std. Error of the Estimate
.769 ^a	.591	.586	1.62973
F ratio			112.634
Sig.=0.000		(Source: SPSS)	

Behavioural Intention (BI) is taken as the dependent variable when applying the multiple regression model. The R Square value (Table No:2.1) is found to be .591, implying that 59.1 per cent of the changes in the Behavioural intention can be attributed to changes in Security and Privacy, Effort expectation, Social Influence, Trust and Performance expectation. The fitted model is

Table 2.2 Coefficients			
	B	T	Sig.
Security and Privacy	.040	1.645	.101
(Source: SPSS)			

Table 2.2 shows that Security and Privacy (B= 0.040, $p>0.05$) are not statistically significant. Hence, H1a: Security and privacy significantly and positively influence the user's intention to use UPI is rejected.

The results indicate that for technologies involving sensitive and personal data, the security capability to secure transactions is relevant and a direct determinant of the customer's intention to adopt the technology. The more innovative the user, the more predisposed the person may be towards new technologies such as UPI. As well-

Table 2.3 Coefficients			
	B	T	Sig.
(Constant)	.979	2.202	.028
Effort Expectancy	.191	5.911	.000
Social Influence	.143	3.078	.002
Trust	.051	2.078	.038
Performance Expectancy	.244	4.614	.000
(Source: SPSS)			

Table No:2.3 exhibits the coefficient matrix between the behavioural intention (dependent variable) and the five selected independent variables based on the literature review. It was found that the Effort Expectancy (B=0.191, $p<0.05$), Social Influence (B=0.143, $p<0.05$), Trust (B=0.051, $p<0.05$) and Performance Expectancy (B=0.244, $p<0.05$) significantly affects the Behavioural Intention.

Cronbach alpha is a statistical tool used to measure the instrument's reliability. It tests internal consistency. Cronbach's alpha values for all the factors are between 0.709 and 0.955. The overall reliability is 0.967, signifying internal consistency among the items, which leads to the conclusion that the instrument is highly reliable. The Cronbach's alpha value threshold is 0.7 [40].

Multiple regression is applied to analyse the individual contribution of the variables. It determines the association between the variables considered for the study. It also helps in prediction based on the regression equation. Table 1 depicts the summary of hypothesis testing.

quantifiably significant at $p<0.05$. Therefore, it indicates that the effects will be statistically significant. Statistical results of ANOVA show that all the variables significantly affect the dependent variable. The table shows that the factors are critical at $F(5,389) = 112.634$, $p<0.05$, which shows that the model is a solid match for the information. Therefore, it can be included in the regression analysis.

informed customers are more likely to adopt UPI, showcasing the technology benefits combined with security features through advertising or other means considered adequate may produce positive results towards adoption. The above table shows that Security and Privacy (SP) were not significant predictors of Behavioural Intention (BI). B shows the variation in the dependent variable due to the independent variable; if a 1% change happens in SP, it will bring a 0.040% change in BI. Beta is not significant at $p>0.05$. So, based on the above argument and results, H1a is rejected.

The regression equation is made with the help of the beta value. After putting the independent variables' value, the dependent variables' value, BI, will be predicted. The regression equation is:

$$BI = 0.979 + 0.191(EE) + 0.143(SS) + 0.051(TT) + 0.244(PE)$$

Hence, the hypotheses H1-b, H1c, H1d and H1e were accepted.

H1b: *Effort expectancy has a significant impact on the intention of the user to make use of UPI*

UPI is user-friendly, offers multiple modes of settlement and has an intuitive, simple interface. The worth of any service could be gauged by its utility derived by the user and the efforts the user has to put into deriving it. The less effort a user has to expend to avail of a service, the more utility it has; in the case of UPI, the user can settle transactions using his mobile phone without any additional infrastructure. Effort Expectancy (EE) is the system's ease of use [14]. In this study, it is found that EE influences the intention of the user to make use of UPI, and the second hypothesis, H2, is supported.

H1c: *Social Influence has a positive impact on the intention of the user to make use of UPI*

Humans are social beings who are greatly influenced by their surroundings. Social influence can influence the perceived risk of using the UPI. Social influence can help determine how the potential risk could be minimised to improve the consumers' adoption of UPI. People would generally prefer to use UPI if people close to them are using UPI. This would be a biased herding behaviour, where people will go with the herd or crowd without critically analysing the suitability of using the UPI app for themselves. Social Influence (SI) has been found to influence the intention to use positively; thus, H3 is supported. Therefore, SI and BI have a critical connection or impact ($B=0.143$, $p<0.05$). The findings support the existing literature that social influence significantly affects behavioural intention to use UPI.

H1d: *Performance Expectancy has a positive effect on the intention of the user to make use of UPI*

The reliability of a product or service is measured by the number of faults it has over a cycle. This result implies

4.2. Hypothesis Testing using Multiple Linear Regression of Objective 2

Table 2.4 Regression Analysis			
R	R Square	Adjusted R Square	Std. Error of the Estimate
.685 ^a	.469	.466	1.92135
F ratio			173.197
Sig.=0.000		(Source: SPSS)	

Actual Behaviour (AB) is the dependent variable when applying a multiple regression model. The R Square value (Table No:2.4) is found to be .469, which implies that 46.9 per cent of the changes in Actual Behaviour are influenced by the Facilitating Conditions and Behavioural Intention. When there is a one per cent increment in the factors, it

that UPI increases work productivity and allows one to make transactions faster than cash payments. It provides convenience and performance benefits to consumers when they perform their daily financial transactions. This implies that the extent to which UPI provides benefits in performing payment tasks is significant to the adoption of UPI. PE is the degree to which an individual believes that using a system helps to attain gains. PE can be essential in shaping BI ($B=0.244$, $p<0.05$). This means that the regression model is statistically significant and a good predictor of the dependent variable, which in this case is the BI of the individuals. H4 is supported, showing that Performance Expectancy (PE) positively relates to the intention to use.

H1e: *Trust has a positive impact on the intention of the user to make use of UPI*

Service quality may act as a strong trust signal. Suppose service providers cannot ensure service reliability, promptness and personalisation. In that case, users may doubt service providers' ability and integrity to present quality mobile payment services to them, which will decrease their trust. The customers' confidential data is safeguarded. The respondents trust that UPI service providers will not divulge any of my information to a third party, will keep their promises and commitments, and will follow consumer laws. They firmly believe that the service provider will provide the assistance required in case of any issue. Trust (TT) has a significant impact on the user intention ($B=0.051$, $p<0.05$). Trust in the system significantly influences the user's behaviour towards using UPI, which is established, and H5 is supported. H6 is supported, showing that Trust (TT) positively relates to the intention to use.

will bring a positive difference of .469% on BI. The fitted model is quantifiably vital at $p<0.05$. FC and BI significantly predicted AB, $F(2,392) = 173.197$, $p<0.05$, which indicates that FC and BI can play a significant role in shaping AB.

Table 2.5 Coefficients					
	B	SE	Beta	t	Sig.
(Constant)	2.136	.479		4.459	.000
Facilitating Conditions	.278	.044	.274	6.377	.000
Behavioural Intention	.520	.045	.501	11.648	.000
(Source: SPSS)					

Table No:2.5 exhibits the coefficient matrix between the Actual Behaviour (dependent variable) and the selected

two independent variables based on the literature review. It was found that the Facilitating Conditions ($B=0.278$,

$p < 0.05$) and Behavioural Intention ($B = 0.520$, $p < 0.05$) significantly affect the Actual Behaviour.

The regression equation is:

$$AB = 2.136 + 0.278(FC) + 0.520(BI)$$

Hence, the hypothesis H6 and H7 are accepted.

H2: *Intention of Behaviour has a positive impact on the actual behaviour of the user.*

The actual behaviour is influenced by the intention to use a UPI-based application and to use UPI regularly. The effect of BI was significant at 0.05 level for AB ($B = 0.520$, $p < 0.05$). When there is a one-point increment in BI, it will bring a positive difference in 0.520 focuses on BI. There is a noteworthy connection or impact between AB and BI. The outcomes additionally gain support from the earlier discoveries.

H3: *Facilitating conditions have a positive impact on actual behaviour*

Ample resources and support are available for consumers in terms of guidance, help, and training to increase the use

of UPI. As well-informed customers are more likely to adopt UPI, showcasing the technology benefits combined with security features through advertising or other means considered adequate may produce positive results towards adoption. Facilitating conditions such as arranging training programs, providing technological infrastructures, and making relevant resources available to facilitate the use of UPI can significantly impact the actual behaviour. FC significantly predicted AB, which indicates that FC can play a significant role in shaping AB ($B = 0.278$, $p < 0.05$). H7 is supported, and FC positively influences and significantly impacts the intention to use UPI.

4.3. Confirmatory Factor Analysis

CFA is a factor analysis multivariate statistical tool used to confirm or reject the measurement variable. It measures the pre-specified relationship. In AMOS, visual paths are manually drawn in the graphic window, and analysis is performed. Confirmatory factor analysis (CFA) was carried out to evaluate the fit of the measurement model and confirm the hypothesised structure. The CFA measurement model is shown in Figure 2.

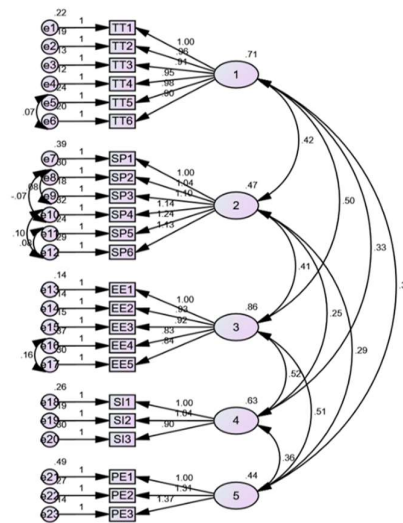


Figure 2 Confirmatory Factor Analysis

The χ^2 value was observed to be 841 with a χ^2 / df ratio of 3.8, which is higher than the threshold value of 3, as suggested by [41]. Satisfactory values were obtained on other fit indices. The TLI and CFI values were found to be

greater than 0.90. The RMSEA value was also within the desired limit of ≤ 0.05 [42]. The measurement CFA model suggested an acceptable model fit based on the values of different standard model fit measures presented in Table 3.

Table 3 Model- fit statistics of the measurement model.		
Model Fit Statistics	Recommended	Obtained
CMIN	-	556.351
Df	-	214
CMIN/Df	<5	2.600
CFI	>0.9	0.930
RMSEA	<0.08	0.064
Sig.= 0.001 (Source: AMOS)		

The structural research model has unobserved latent factors and observed variables. These variables act as the indicators of their respective underlying latent constructs.

Structural equation modelling (SEM) was conducted using AMOS 21 to test the hypothesis formulated. In reviewing the SEM path model, it can be observed that social

security, effort expectancy, social influence, performance expectancy and trust influence behavioural intention. The paths are derived based on the findings of the literature and modified based on the reliability and validity tests. Behavioural intention and facilitating conditions affect the actual performance. The goodness of fit indices were $\chi^2 = 841$ with $df = 214$, $RMSEA = 0.064$, $CFI = 0.930$ and $CMIN/DF = 2.60$, which were within the threshold values suggested by [43].

5. CONCLUSION

UPI is expected to gain rapid importance with the increasing popularity of smart devices and mobile applications. The results of this study contain several implications for UPI users in general and researchers, UPI service providers, and policymakers specifically. The study found innovativeness essential in explaining UPI adoption and informing customers likely to adopt UPI. Target marketing and technology-specific factors such as compatibility, perceived security, performance expectancy, etc., that emphasise the compatibility of mobile payment technology with the user's lifestyles may also help increase UPI adoption. UPI service providers and policymakers should prioritise technology security and user awareness in the UPI payment environment. A sense of insecurity may become an inhibitor for adopting applications. The empirical findings demonstrate that employing perceived security and trust would be worthwhile in predicting behavioural intention to use UPI. Behavioural intention can be viewed as an individual's underlying attitude, ultimately determining behavioural intentions via attitude [44]. Thus, this study contributes to the literature on the UTAUT research by confirming that perceived security, as a salient belief, can influence behavioural intention.

5.1. Theoretical Contribution

It is observed among users of UPI in India that the security and privacy of the UPI payment service provider Payment Network (UPI) are not a significant factor influencing the intention to use UPI in India; this could be due to the Payment Network being owned by the Reserve Bank of India and Ministry of Finance, Government of India, and the payment system being open source. The users of UPI have a strong belief in NPCI and would not misuse their data on the network due to this. The Reserve Bank of India regulates UPI-based digital payment service providers regarding how they use the data they obtain from their users. This effectively put inclinations about security and privacy on the back burner. The less effort a user has to expend to avail of a service, the more utility it has. In the case of UPI, the user can settle transactions using his mobile phone and without any additional infrastructure. This needs less effort on the user's part, thereby significantly impacting the user's intention to use UPI. It is surmised that social influence substantially impacts the user's intention to use UPI, as humans are social beings and consciously and unconsciously influenced by what is happening in their surroundings. Performance Expectancy has a significant positive effect on the user's intention to

use UPI; as it is a scalable network, the instances of a transaction not completing are significantly low. Trust substantially affects the user's intention to use UPI, as the user trusts a third party to settle their transactions. The intention to use UPI positively impacts the user's actual behaviour as the intention to act precedes the action. The facilitating conditions have a significant and positive impact on actual behaviour. The intention to act would not lead to the individual performing the same if there are constraints to performing the same.

5.2. Managerial Implications

The research has concluded that effort expectancy, performance expectancy, trust in the service provider and social influences could significantly and positively influence intention to use the UPI network. The UPI penetration can be increased by making it easier for users to complete the transactions faster, with fewer chances of the transactions not completing; the government should, in its capacity, ensure widespread penetration and usage of UPI by making policies conducive to increasing individuals and businesses using UPI. The UPI application can be made more language-inclusive.

5.3. Limitations and further research

The number of UPI users is increasing significantly in India; the findings from a sample size of 394 may be disproportionate to represent the behavioural intention of the whole population. In this study, most of the respondents are young and female, which does not reflect the complete view of the Indian population. Future findings can be determined with a sample of many users. There is no denying that because of socio-economic and cultural differences, there is a variation in people's behavioural intentions. This study is based on consumers' behavioural intention about UPI; it is difficult to use the results of this study for other mobile technologies. The study confines only UPI, although there is another digital payment channel; hence, future studies may include internet banking, telebanking, etc. This study considers the responses at a single point in time. A longitudinal study can be conducted to understand the change in trends and behaviour of consumers in various cities of India. Analysing the different demographic factors may provide different results; hence, future studies may focus on demographic factors like age, gender, occupation, education, etc., on behavioural intention. Other factors such as culture, personality and psychological traits have not been considered; future studies may comprise these dimensions.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Declaration of Funding

No funding was received.

REFERENCES

- [1]. Penser. (2020, November 28). THE PHENOMENAL SUCCESS OF INDIA'S MOBILE PAYMENTS SYSTEM. Retrieved from Penser: <https://www.penser.co.uk/article/fintech/the-phenomenal-success-of-indias-mobile-payments-system/> [1]
- [2]. Financial Express Online. (2020, November 28). Digital India will have over 2% share of global e-payments in 3 years; UPI volume will grow by nearly 300%. Retrieved from Financial Express: <https://www.financialexpress.com/industry/sme/digital-india-to-have-over-2-share-of-global-e-payments-in-3-years-upi-volume-to-grow-nearly-300/2033188/> [2]
- [3]. Palepu, A. R. (2020, 28 November). Can India's UPI Become A Global Model? Google Thinks So. Retrieved from Bloomberg Quint: <https://www.bloombergquint.com/business/can-indias-upi-become-a-global-model-google-thinks-so> [3]
- [4]. Dethle, A. (2020, November 28). Not just Google, the world is watching India's UPI. Retrieved from Economic Times BFSI: <https://bfsi.economictimes.indiatimes.com/news/editors-view/not-just-google-the-world-is-watching-indias-upi/72810296> [4]
- [5]. Mehta, Y. (2020). The Rise Of Digital Wallets Market In India And Other Asian Countries – Today & Tomorrow. Retrieved November 27, 2020, from <https://inc42.com/resources/the-rise-of-digital-wallets-market-in-india-and-other-Asian> [5]
- [6]. Kalantri, v. (2017). One year of demonetisation: Pick, and choose, your e-wallet. Retrieved November 27, 2020, from <https://economictimes.indiatimes.com/blogs/et-commentary/one-year-of-demonetisation-pick-and-choose-your-e-wallet/> [6]
- [7]. Financial Express Bureau. (2017). Now, use e-wallet to invest in mutual funds; investment capped at Rs 50,000. Retrieved November 27, 2020, from <https://www.financialexpress.com/market/now-use-e-wallet-to-invest-in-mutual-funds-investment-capped-at-rs-50000/643958/> [7]
- [8]. Bhalla, T. (2016, August 06). E-wallet transactions surge amid COVID-19. Retrieved from Live Mint: <https://www.livemint.com/companies/news/digital-wallets-make-a-comeback-in-covid-crisis-11596644905299.html> [8]
- [9]. Indo-Asian News Service. (2020, November 27). Gadgets 360. Retrieved from Over 500 million Indians now use smartphones, 77 per cent of who are online: techARC: [https://gadgets.ndtv.com/mobiles/news/over-500-](https://gadgets.ndtv.com/mobiles/news/over-500-million-indians-now-use-smartphones-77-percent-of-who-are-online-techarc-2172219)million-indians-now-use-smartphones-77-percent-of-who-are-online-techarc-2172219
- [10]. Index Mundi. (2020, November 27). India Demographics Profile 2019. Retrieved from Index Mundi: https://www.indexmundi.com/india/demographics_profile.html [10]
- [11]. KPMG. (2020, November 27). Fintech in India - Powering mobile payments. Retrieved from KPMG: <https://assets.kpmg/content/dam/kpmg/in/pdf/2019/08/Fintech-in-India%E2%80%93Powering-mobile-payments.pdf> [11]
- [12]. Chawla, D., & Joshi, H. (2019). Consumer attitude and intention to adopt mobile wallet in India – An empirical study. *International Journal of Bank Marketing*. [12]
- [13]. Fishbein, M., & Azjen, I. (1975). Belief, attitude, intention, and behaviour: An introduction to theory and research. [13]
- [14]. Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 425-478. [14]
- [15]. Legris, P., Ingham, J., & Collette, P. (2003). Why do people use information technology? A critical review of the technology acceptance model. *Information & Management* 40, no. 3, 191-204. [15]
- [16]. Shin, D.-H. (2009). Towards an understanding of the consumer acceptance of mobile wallets. *Computers in Human Behavior* 25, no. 6, 1343-1354. [16]
- [17]. Junadi, S. (2015). A model of factors influencing consumer's intention to use e-payment system in Indonesia. *Procedia Computer Science* 59, 214-220. [17]
- [18]. Awa, O., H., Ojiabo, O. U., & Emecheta, B. C. (2015). Integrating TAM, TPB and TOE frameworks and expanding their characteristic constructs for e-commerce adoption by SMEs. *Journal of Science & Technology Policy Management*. [18]
- [19]. Nidhi, S., Srivastava, S., & Sinha, N. (2017). Consumer preference and satisfaction of M-wallets: a study on North Indian consumers. *International Journal of Bank Marketing*. [19]
- [20]. Chauhan, S. (2015). Acceptance of mobile money by poor citizens of India: Integrating trust into the technology acceptance model. info. [20]
- [21]. Munoz-Leiva, Francisco, Climent-Climent, S., & Francisco, L.-C. (2017). Determinants of intention to use the mobile banking apps: An extension of the

- classic TAM model. *Spanish Journal of Marketing-ESIC* 21, no. 1, 25-38. [21]
- [22]. Barua, M. (2012). E-governance adoption in government organisation of India. *International Journal of Managing Public Sector Information and Communication Technologies* 3, no. 1. [21]
- [23]. Kamble, S., Angappa, G., & Arha, H. (2019). Understanding the Blockchain technology adoption in supply chains-Indian context. *International Journal of Production Research* 57, no. 7, 2009-2033. [22]
- [24]. Amoroso, D. L., & Magnier-Watanabe, R. (2012). Building a research model for mobile wallet consumer adoption: the case of mobile Suica in Japan. *Journal of theoretical and applied electronic commerce research*, 7(1), 94-110. [23]
- [25]. Tran, V. D. (2020). The Relationship among Product Risk, Perceived Satisfaction and Purchase Intentions for Online Shopping. *The Journal of Asian Finance, Economics, and Business*, 7(6), 221-231. [24]
- [26]. Nguyen, T. D., Nguyen, T. M., Pham, Q.-T., & Misra, S. (2014). Acceptance and use of e-learning based on cloud computing: the role of consumer innovativeness. *International Conference on Computational Science and Its Applications*, 159-174. [25]
- [27]. Agarwal, R., Rastogi, S., & Mehrotra, A. (2009). Customers' perspectives regarding e-banking in an emerging economy. *Journal of Retailing and Consumer Services*, 16(5), 340-351. [26]
- [28]. Karjaluoto, H., Riquelme, H. E., & Rios, R. E. (2010). The moderating effect of gender in the adoption of mobile banking. *International Journal of bank marketing*. [27]
- [29]. Morgan, R., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58(3), 20-38. [28]
- [30]. Shaw, N. (2014). The mediating influence of trust in the adoption of the mobile wallet. *Journal of Retailing and Consumer Services*, 449-459. [29]
- [31]. Flavian, C., Guinaliu, M., & Gurrea, R. (2006). The role played by perceived usability, satisfaction and consumer trust on website loyalty. *Information & management*, 1-14. [30]
- [32]. Kim, Y., & Chung, M. G. (2008). Personalised information services using a hybrid recommendation method based on usage frequency. *Program*. [31]
- [33]. Teo, T., Lee, C. B., & Chai, C. S. (2008). Understanding pre-service teachers' computer attitudes: applying and extending the technology acceptance model. *Journal of computer-assisted learning*, 24(2), 128-143. [32]
- [34]. Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: a comparison of two theoretical models. *Management Science*, 35(8), 982-1003. [33]
- [35]. Phan, T. N., Ho, T. V., & Le-Hoang, P. V. (2020). Factors Affecting the Behavioral Intention and Behavior of Using E-Wallets of Youth in Vietnam. *The Journal of Asian Finance, Economics and Business* 7(10), 295-302. [35]
- [36]. Sikdar, p., Kumar, A., & Alam, M. M. (2019). Antecedents of electronic wallet adoption: a unified adoption-based perspective on a demonetised economy. *International Journal of Business and Emerging Markets*, 11(2), 168-196. [36]
- [37]. Chen, J. J., & Adams, C. (2005, December). User acceptance of mobile payments: a theoretical model for mobile payments. *Proceedings of the Fifth International Conference on Electronic Business (ICEB)*. [37]
- [38]. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 319-340. [38]
- [39]. Krejcie, R.V., & Morgan, D.W., (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*.
- [40]. Hair, Wolfinbarger, M., Money, A. H., Samouel, P. and Page, M. J. (2015). *Essentials of business research methods*. Routledge.
- [41]. McIver, J., & Carmines, E. G. (1981). *Unidimensional scaling* (No. 24). sage.
- [42]. Hair, Sarstedt, M., Hopkins, L. and Kuppelwieser, G. V. G. (2014). Partial least squares structural equation modeling PLS-SEM An emerging tool in business research. *European Business Review*, 26(2): 106-21.
- [43]. Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal*, 6(1), 1-55.
- [44]. Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211.