SSRG International Journal of Economics and Management Studies
ISSN: 2393 – 9125 / https://doi.org/10.14445/23939125/IJEMS-V7I7P106

Volume 7 Issue 7, 30-39, July, 2020

Original Article

Role of IT Mindfulness on Continuance Intention of Mobile Payment System

Pradeepkumar Chokkannan[1], Vivekanandan Kaniappan[2]

[1]*School of Management & Bharathiar University, Coimbatore, Tamil Nadu, India*
[2]*School of Management & Bharathiar University, Coimbatore, Tamil Nadu, India*

Received Date: 29 May 2020
Revised Date: 11 July 2020
Accepted Date: 13 July 2020

Abstract *- With the emergence of mobile payment systems, the initial adoption has been growing. However, the high adoption rate may not reflect in the continued use of mobile payment systems, as any innovation is successful based on its continued usage. We advance the current body of information on mobile payment usage by introducing a paradigm for understanding the purpose of continuance intention to use Mobile Payment System (MPS) and the relationship of the UTAUT Variables through IT Mindfulness on continuous intention to use MPS. This research applies a quantitative approach to the study of the continuance intention of mobile payment systems among 187 shoppers in malls using a questionnaire. Confirmatory factor analysis was performed to validate the factor structure of the measurement items, and Structural Equation Modeling was used to test the proposed research model. The results suggest that Social influence has little influence while IT mindfulness and Facilitating conditions have a strong influence on Continuance intention to use the Mobile payment system.*

Keywords *- Mobile payment systems, IT mindfulness, Continuance intention,UTAUT, Adoption of technology*.

I. INTRODUCTION

Mobile technology is becoming a more and more common platform and provides consumers a range of services and options such as browsing the Internet, watching movies, games and making payments for bills and purchases by integrating multiple bank accounts, credit cards, and e-wallet. The introduction of mobile payment systems (MPS) heightens the focus of researchers to explore the factors that affect the use of MPS. The emergence of mobile payment shows an increase in the use of new technology in people's lives. This also evolves increasingly to meet consumer needs, such as convenience and fast transactions. Compared to conventional forms, this modern payment system provides several advantages. Fewer and fewer people are bearing a full purchase with actual credit or debit cards. It seems that mobile payment transforms our lives (Boden, Maier, & Wilken, 2020).Few studies have compared the use of cash or debit/credit cards and reported that consumers show an increase in willingness to pay by using cards as the pain of payment is lesser comparative to cash, similarly to mobile payment method systems (Khan & Craig-Less, 2009; Zhang & Mao, 2019).

In India, Cash remains king. However, fast technology adoption and the government's concerted drive change things. Mobile payment systems boom, but the scale of their coverage and the continuance use is still unclear. Mobile payments are made using mobile applications such as Google Pay, Paytm and BHIM, etc. Instead of using a credit card or scanning a debit card, a mobile payment consumer simply uses the mobile device camera to scan the QR code at a merchant's POS terminal or uses the merchant's mobile contact number to complete the purchase (Oliveira, Thomas, Baptista, & Campos, 2016). Similarly, service providers can automatically collect recurring bills once the billing cycle is reached, and consumers can pay from where they are at any time. Mobile payments make buying goods easier and more convenient(Garrett, Rodermund, Anderson, Berkowitz, & Robb, 2014).many studies used TAM(Davis, Bagozzi, & Warshaw, 1989) and the UTAUT model to identify the factors that affect consumer intention to use m-payment systems and found that strong predictors of the intention to use m-payment are perceived ease of use and perceived usefulness(Kim, Mirusmonov, & Lee, 2010).

UTAUT initially proposed four key constructs (performance expectations, effort expectations, social influence, and facilitating conditions) as direct determinants of behavioral intention to use technology(Venkatesh, Morris, Davis, & Davis, 2003). In UTAUT, performance expectancy is the same as the perceived usefulness of TAM and is defined as the degree to which an individual believes that using the system will help him or her to achieve performance gains. As perceived ease of use in TAM, effort

expectancy refers to the degree of ease associated with the use of the technology(Kim et al., 2010).

Some studies have proposed additional factors that are considered specific to the mobile payment environment, such as risk, network externalities, trust, and security; most of the studies conducted are exploratory and early phase studies (Dahlberg, Mallat, Ondrus, & Zmijewska, 2008). Mindfulness is one aspect that supports the behavioral intended purpose and the use of technology, suggesting that mindfulness will help individuals leverage technology and make new technologies work for us. Thatcher, Wright, Sun, Zagenczyk, and Klein (2018) proposed the Mindfulness construct specifically for IT (IT Mindfulness) to study the effect of IT Mindfulness on post-adoptive systems and found it to have a significant effect. Mindfulness has been defined as a state of alertness and lively awareness by Langer (1989).Only very few studies have studied the effect of IT mindfulness at the organization level;Iannacci, Fearon, and Pole (2020) studied IT mindfulness in the concept of adaptive acceptance of social media policy change in the context of Business-to-Business (B2B) Small-and-Medium Enterprises (SMEs). This work indicates that the mindfulness of a consumer when adopting MPS is a key element that defines whether the technology can suit the context of the role at the post-acceptance level and thus has a significant impact on the adoption and continued usage of MPS by users. People ignore their own local environments and social norms than their own knowledge, and ina less mindful way, they adopt the technology. Consequently, at the post-adoption level, an adapted technology sometimes turns out to be a poor fit in local contexts (Sun, Fang, & Zou, 2016)(Kumar, Murimi, & Romalice, 2019).

Studies have demonstrated that IT mindfulness affects adoption decisions(Sun, 2011), and previous studies have ignored to use of IT mindfulness to explore the effect on continuance use of mobile payment systemsin the consumer context. We close this divide by decoding how people can make informed decisions on adoption and how these decisions will lead to the adoption of a technology that affects the continuance of MPS. Ourstudy addresses this gap by introducing IT mindfulness in the UTAUT model to find the effect on continuance use of mobile payment systems.

This research attempts to answer two research questions i)How IT mindfulness affects the adoption of MPS and ii)How does IT mindfulness affects the relationship between adoption and continuance of MPS. We proposed a research model to answer these questions by integrating IT mindfulness in the UTAUT model (V. Venkatesh, M. G. Morris, G. B. Davis, & F. D. Davis, 2003).

II. THEORETICAL BACKGROUND

A. Mobile payments

Mobile payment is a comparatively significant area for information systems research in the field of security, technology, and user behavior, as compared to similar fields of research such as e-commerce, online banking, or mobile banking. Today, the markets for mobile payment systems have a history of many solutions that have been tried and adopted, like mobile wallets, SMS payments, UPI payment systems, NFC-based and QR scan methods, etc., and solutions like Adhaar enabled payment systems are in the adoption stages. Singh and Sinha (2020) employed the TAM model and found perceived customer value addition and perceived usefulness of technology had a significant impact on merchant's mobile wallets adoption of Mobile payments.Teo, Tan, Ooi, and Lin (2015) studied the adoption of mobile payment systemsin multi-religion and multi-ethnic perspectives using the UTAUT model and discovered that performance expectancy (PE), effort expectancy (EE), facilitating conditions (FC), and trust (TR) are significant with the intention to adopt as many such studies concentrated on the adoption of mobile payment system only a few studies taken in to account of continuance use of MPS (Chen & Li, 2017; Zhou, 2014). The research by Zhang and Mao (2019) found that consumers prefer the NFC payment method over cash or card influenced by cognitive as well as effective and social antecedents. Trust, being a significant factor among the MPS Cao, Yu, Liu, Gong, and Adeel (2018), investigates the use of mobile payment system post-acceptance based on trust transfer theory and noticed that trust transfer mechanism has a positive effect on the continuance intention of mobile payment through the satisfaction

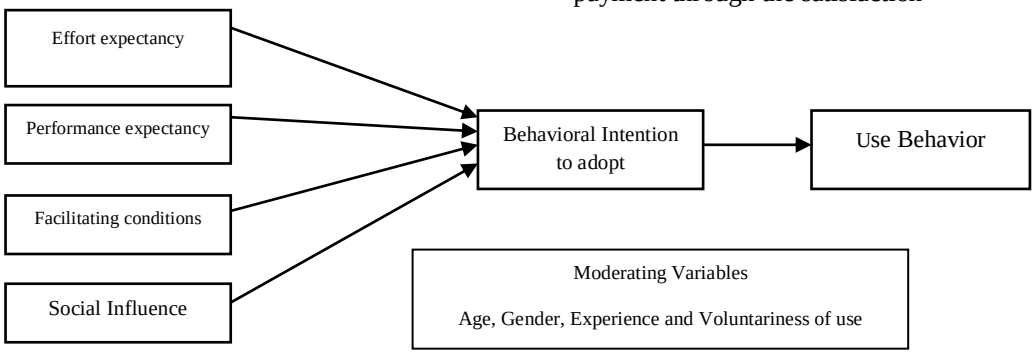

Fig. 1 UTAUT Model

B. Model used

Mobile payment has earned a substantial level of attention from IS researchers in the last decade to study acceptance among consumers. Researchers have therefore tried to identify factors that affect the behavior of users. Information systems theories such as the technology acceptance model (TAM) and the innovation diffusion theory, the UTAUT model, are often used as the logical foundation (Dahlberg et al., 2008). Because of its simplified form and greater explanation power, UTAUT has been a popular paradigm in the years after its conception and has been utilized extensively in technology adoption and technology diffusion studies as a theoretical prism (Bagozzi, 2007), and many researchers carried out empirical studies of consumer intention and behavior with respect to technology adoption.

In a study,Bhattacherjee (2001) adapted the Expectation confirmation Theory to study the continuance of IT and found that satisfaction is the strongest predictor for continuous use of technology. The Unified Technology Acceptance and Usage Theory (UTAUT) has been commonly used (Dahlberg et al., 2008)(Tarhini, Arachchilage, Masa'deh, & Abbasi, 2015) to analyze factors that affect the reception and use of information systems and different technology across different Culture (Im, Hong, & Kang, 2011). From the meta-analysis of UTAUT conducted by Khechine, Lakhal, and Ndjambou (2016), the model, seen in Figure 1, is one such model and is considered by previous research to be the most reliable model of technology acceptance literature.

C. Prior research

Mobile payments have been suggested as a way to promote micropayment in mobile and retail stores and to offer an effective method for minimizing the usage of cash at the point of sale (POS). Modern digital networks such as the internet and mobile shopping are generated with modern payment devices, allowing viable and easy purchases on such platforms. Progress or lack in electronic payments has financial consequences for a range of businesses. By offering their clients mobile payments or becoming themselves a mobile payment service provider, companies can achieve competitive advantages (e.g., m-Pesa,Airtelmoney,Google pay, etc.). Mobile payments are described as the usage of a mobile device to create a financial transaction through which money or funds are transmitted from the payer to the recipient via the intermediary or directly without the intermediary (Mallat, 2007). Most consumer research on mobile payments focuses on their acceptance and use, and few studies also focus on m-payment adoption variables such as security, cost, trust, compatibility, switching costs, technological impulses, etc. (Dahlberg, Guo, & Ondrus, 2015) while little is known as to how mindfulness impacts the adoption and continuance intention of the MPS.

While post-adoption usage by consumers is crucial to the performance of mobile payment systems, few studies have paid attention to understanding factors that influence post-adoption behavior. Only a few studies have analyzed the adoption and continuance of mobile payment systems in the last years (Chen & Li, 2017; Lu, Wei, Yu, & Liu, 2017). To understand the MPS sustenance, researchers (Pal, Herath, De', & Rao, 2020) studied the intention to continue MPS with predictor variables as contextual facilitators (price benefit, network externalities, trust, and habit) and barrier factors (risk, lack of facilitating conditions, and operational constraints).

Technology users operate in this dynamic world, and mindfulness may help them adjust to evolving lifestyle conditions and adapt their technology usage to new challenges. Dane claims, for example, that in complex situations, mindful users can decide when and how to use the technology.

III. RESEARCH MODEL AND HYPOTHESIS

In a literature review research,Dahlberg et al. (2015) found that researchers only focused extensively on consumer adoption and technology aspects of mobile payment systems. Extensive work has identified the most important factors responsible for the acceptance of the MPS, but there, regarding the Post-adoption factors responsible for the continuance of MPS, only a few studies were conducted (Chen & Li, 2017; Mensah, 2019; Zhou, 2013).

Work on mobile payment systems in the field of consumer adoption has extended TAM, UTAUT, and other proven adoption models with various extensions and argues that the UTAUT model explains the factors responsible for technology adoption (de Albuquerque, Diniz, & Cernev, 2014) as the is a model synthesis of eight technological approaches/models, the theory of reasoned action, the technology acceptance model, the motivational model, the theory of planned behavior, a model combining the technology acceptance model and the theory of planned behavior, the model of PC utilization, the innovation diffusion theory, and the social cognitive theory (Venkatesh et al., 2003).Drawing from the UTAUT model, we extend the model to study the continuance of MPS with the interaction effect of IT Mindfulness at the adoption stage and to study the relationship between the behavioral intention to use and the continuance of MPS. At the stage of adoption, mindfulness can be an important factor when choosing a technology that will be a great fit post-adoption(Thatcher et al., 2018). The mindful person knows the scope and properly examines the technology's fundamental qualities in relation to alternative technologies (Sun et al., 2016). We developed a research model (Figure 2) about the influence of IT Mindfulness on behavioral intention to adopt and continue the use of Mobile payment systems drawing on the UTAUT model.

The degree of ease associated with technology is defined as an effort expectancy (Venkatesh, Thong, & Xu, 2012). Consumers become increasingly relaxed with easy-to-use technology. The more complicated a technology is the lower its adoption rate. Effort expectancy helps to determine the intention to adopt new technology. If the user felt that the mobile payment system is simple to use and requires little work and time, they expect the desired performance to be achieved. We define effort expectancy as the degree of ease associated with using the mobile payment system.

H1: Effort expectancy positively influences the behavioral intention to adopt a mobile payment system.

H2: Performance expectancy positively influences the behavioral intention to adopt a mobile payment system.

Performance expectancy is defined as the degree to the facilitation conditions are referred to the degree to which an organizational and technical infrastructure is assumed by the user to be available to support the use of technology, and Facilitating conditions are analogous to perceived behavioral control of Theory of Planned Behavior (TPB), Facilitating Conditions (MPCU), and compatibility of the Innovation Diffusion Theory (IDT) that portray the impact of users' knowledge, capabilities, and resources.(Venkatesh et al., 2003).Previous studies found that facilitating conditions significantly affect the user's adoption intention in addition to other factors like trust, security, and compatibility (Zhou, Lu, & Wang, 2010).

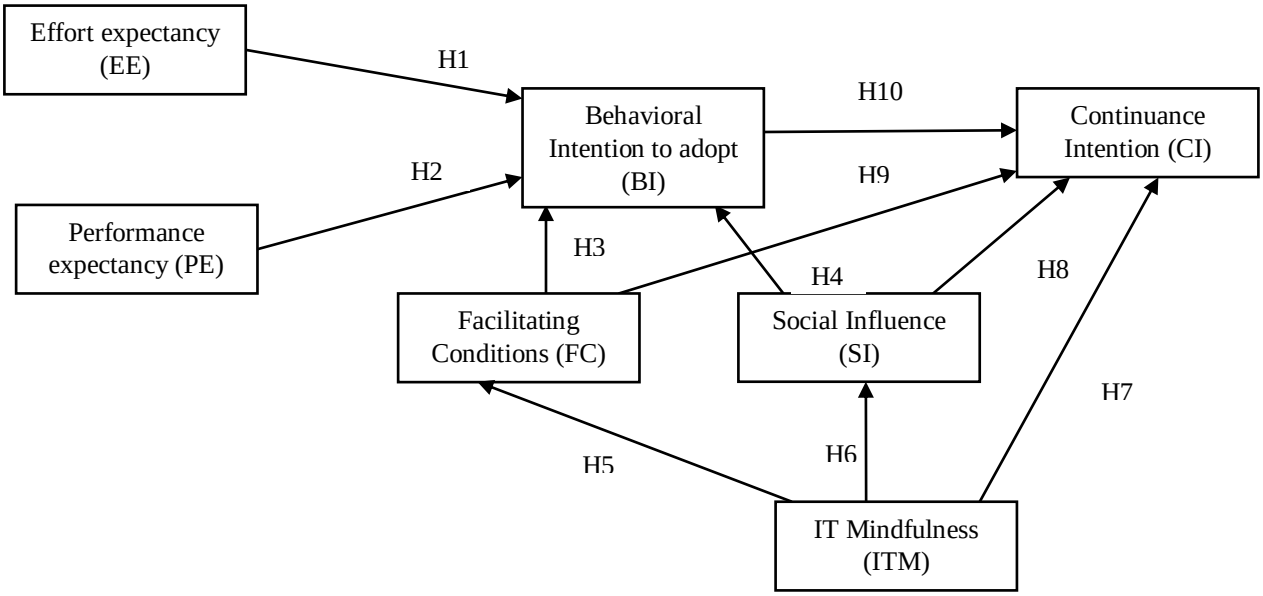

Fig. 2 Proposed Research Model

Which a user expects that the usage of the technology can help to achieve gains in certain tasks (Venkatesh et al., 2003).

The perception of the user that using mobile payment can help to make improvements in the performance of payment tasks will therefore affect the behavioral intention to adopt a mobile payment system. We define performance expectancy is the degree to which a user expects benefits over using the mobile payment system.The UTAUT model meta-analysis (Williams, Rana, & Dwivedi, 2015) shows that performance expectancy, effort expectancy, and social influence are significant predictors ofthe behavior intention to adopt.

In our research, Facilitation Conditions mean that users believe that they have the information and resources required to use mobile payment systems. In addition, they need to be ready with the information necessary to operate and to find self-help resources that will enable them to solve the difficulties of how to use certain features of mobile payment systems. In some research based on the technology studied (Barnett, Pearson, Pearson, & Kellermanns, 2015), the influence of performance expectancy and effort expectancy weakens the effect of facilitating conditions on behavioral intention. Nevertheless, empirical evidence proved that the impact is greater for experienced and older people (Alwahaishi & Snášel, 2013; Kurfalı, Arifoğlu, Tokdemir, & Paçin, 2017); Lallmahomed, Lallmahomed, and

Lallmahomed (2017). Drawing from the literature we propose that facilitating condition influences behavioral intention to use Mobile payment systems

Social influence is defined as the degree that the person who is deemed valuable to him/herself (e.g., family, friends, and peers) think that he/she should use the new technology (Venkatesh et al., 2003; Venkatesh et al., 2012).Yang, Lu, Gupta, Cao, and Zhang (2012) found that behavioral beliefs in combination with social influences are a significant indicator for the adoption and the use of mobile payment systems, and though their effects on compliance vary in different stages. Social influence was long regarded as a key factor in understanding adoption behavior in the literature in the technology adoption and acceptance models to study internet banking adoption,e-commerce adoption, and use of e-government services (Chong, 2013; Martins, Oliveira, & Popovič, 2014; Schaupp, Carter, & McBride, 2010). The underlying theory is that individuals tend to interact with their close associates to consult and to minimize their discomfort as a result of confusion about the adoption of technology.

According to Thatcher et al. (2018), IT mindfulness is defined as an evolving IT-specific feature that is apparent when working with technology, with the user focusing on the present, paying particular attention to details, willing to take into consideration other applications and genuine concern about technology feasibility and failure.Mindfulness plays a significant role in the adoption and post-adoption stage of technology adoption and continuance (Dernbecher & Beck, 2017; Sun & Fang, 2010; Sun et al., 2016). Drawing from the discussion, the below hypotheses are postulated

H3: Facilitating conditions positively influence the behavioral intention to adopt a mobile payment system.

H4: Social influence positively affects the behavioral intention to adopt a mobile payment system.

H5: IT Mindfulness has a direct influence on Facilitating Conditions

H6: IT Mindfulness has a direct influence on Social Influence

H7: IT mindfulness has a direct influence on the Continuance intention of MPS

H8: Social influence has a direct effect on the Continuance intention of MPS

H9: Facilitating conditions has a direct effect on the Continuance intention of MPS

Consumers with a higher intention to adopt new technology are more likely to become adopters and to continue to use the technology, Gupta, Yousaf, and Mishra (2020). According to UTAUT2 (Venkatesh et al., 2012), performance expectancy, effort expectancy, and social impact are theorized to affect the behavioral intention to use technology, while behavioral intent and facilitating conditions decide the use of technology. On the basis of a discussion in the literature, we present the following hypothesis

H10: Behavioral intention to adopt a mobile payment system positively influencethe continuance intention of MPS.

IV. METHODOLOGY

The research framework incorporated seven factors and was measured by multiple items. All items have been adapted from existing literature to improve content validity. Once the instrument was developed, it was tested with 30 users who had experience in using the mobile payment system. Items for UTAUT constructs were being adopted from (Oliveira et al., 2016; Venkatesh et al., 2003; Venkatesh et al., 2012) and Items to measure IT Mindfulness is adapted from (Thatcher et al., 2018), and for continuance intention,the Items were adapted from (Chen & Li, 2017).All items are measured using 5 pointsLikert scale (1-Strongly disagree to 5-Strongly agree).Data were collected using structured questionnaires from the shoppers in shopping malls.

V. ANALYSIS AND RESULTS

The demographic statistics are shown in Table 1. The table shows that the respondents are diverse in terms of age group, gender, and usage of smartphones.

Table 1. Demographic Profile of the Respondents

Variable	Frequency	Percentage
Gender		
Male	119	63.6
Female	68	36.4
Age		
18-25	34	18.2
26-32	40	21.4
33-40	51	27.3
41-47	37	19.8
48-54	12	6.4
55-62	9	4.8
63-70	2	1.1
71+	2	1.1
Smart phone usage		
Less than 1 year	10	5.3
2-5 year	61	32.6
6-9 year	85	45.5
10+	31	16.6

Survey Instrument was tested with SPSS using reliability and convergent validity criteria by calculating Cronbach's alpha to measure internal consistency. Most of theCronbach's alpha scores were above the acceptable level, that is, above 0.70 and composite reliabilities are greater than .7, and average variances extracted surpass values of .5 .The factors from the current literature are derived and used in this study showed strong validity. Discriminant validity of the model was examined using the procedure suggested by (Fornell & Larcker, 1981); Voorhees, Brady, Calantone, and Ramirez (2016), which recommended that each measure and construction should be measured for reliability and extracted the average variance (AVE) for each factor.(Bagozzi & Yi, 1988).

Table 2. Descriptive Statistics of Factors

Variable	Mean	Std.Deviation	Skewness	Kurtosis
EE	2.74	0.61	0.03	-0.09
PE	3.02	0.54	-0.34	-0.19
FC	3.67	0.52	0.24	0.36
SI	3.21	0.57	-0.12	0.43
BI	3.43	0.67	-0.17	-0.37
ITM	3.27	0.53	0.04	-0.08
CI	3.12	0.47	0.21	0.32

As shown in Table 2, the mean scores of all the items are calculated, and it can be seen that all items result in the mean value above 3.0 except Effort expectancy, and it may be because the respondents have been using the mobile payment systems for some time and the effort expectancy factor started to diminish with usage. The univariate normality of the data was controlled by skewness and kurtosis data. In our study, the maximum likelihood estimate implies that skewness is limited to ±3 while kurtosis is limited to ±10.The average variance extracted between the measurements of each factor and all other measurements is greater than the square correlation of that factor. Confirmatory Factor Analysis (CFA) was conducted to develop the measurement model, and then We applied the Structural Equation Modeling (SEM) approach to analyze the variables within their framework based on the two-step approach recommended by Anderson and Gerbing (1988). The software program Analysis of Moment Structures (AMOS), a part of the Statistical Package for the Social Sciences (SPSS) software (Arbuckle, 2007), was used to conduct CFA and SEM. All items except EE4 have a factor loading of at least 0.50, with 0.362 being the corresponding value for EE4. This item is therefore eliminated from further analysis. The resulting factor loadings, average variance extracted (AVE), Cronbach's Alpha, and composite reliability (Table 3).

The diagonal elements in their respective row and column are wider than the off-diagonal elements, suggesting the constructs are more associated with their own elements compared to those of the other constructs, as shown in Table 4. Therefore, prejudice is tested for discriminant validity. The findings show that there are no issues with discriminant validity.

Table 3. Reliability and Confirmatory Factor Analysis

Variable	Item	Loading	AVE	Cronbach's alpha	Composite Reliability
EE	EE1 EE2 EE3 EE4	0.641 0.697 0.750 0.362	0.756	0.763	0.783
PE	PE1 PE2 PE3 PE4	0.770 0.819 0.849 0.846	0.675	0.890	0.892
FC	FC1 FC2 FC3	0.577 0.746 0.657	0.612	0.735	0.732
SI	SI1 SI2 SI3	0.647 0.630 0.705	0.655	0.767	0.768
BI	BI1 BI2 BI3	0.825 0.927 0.804	0.729	0.883	0.885
ITM	ITM 1 ITM 2 ITM 3 ITM 4	0.872 0.856 0.914 0.858	0.711	0.855	0.858
CI	CI1 CI2 CI3	0.903 0.881 0.870	0.783	0.914	0.943

Table 4. Discriminant validity analysis

	EE	PE	FC	SI	BI	ITM	CI
EE	**0.731**						
PE	0.413	**0.823**					
FC	0.542	0.512	**0.682**				
SI	0.437	0.464	0.446	**0.642**			
BI	0.406	0.436	0.541	0.503	**0.852**		
ITM	0.246	0.324	0.212	0.412	0.346	**0.783**	
CI	0.424	0.522	0.324	0.542	0.226	0.446	**0.678**

A. Model Fitness

Structural equation modeling was used to analyze the data. Structural modeling evaluates whether the data fit a theoretical model, Table 5 lists indices that fit measurement parameters and structural model. All standards are greater than acknowledged, and endorse past outcomes. Eventually, measurement and structural model were tested, and all the values obtained meet the criteria and have demonstrated reliability and discriminant validity.

Table 5. The recommended and actual values of fit indices

Fit indices	$\chi 2$/df	GFI	RMSEA	CFI	TLI
Actual value	1.827	0.95	0.068	0.935	0.921
Recommended value	<3	>0.9	<0.07	>0.9	>0.9

Notes: $\chi 2$/df, the ratio between $\chi 2$ and degrees of freedom; GFI, the goodness of fit index; CFI, the comparative fit index; RMSEA, root mean square error of approximation; TLI,Tucker-Lewis Index.

The overall fitness of the model is justifiable, as the goodness-of-fix statistics are satisfactory and permissible with all of the relevant goodness of fit indices (GFI, CFI, TLI) are greater than 0.90. The root mean square error of approximation (RMSEA) is used as measures of absolute fit, and the Comparative Fit Index (CFI) and Tucker–Lewis Index (TLI) are as indices of incremental fit; the GFI is 0.95, CFI is 0.935, and the TLI 0.921. Similarly, the RMSEA reported a very acceptable level of 0.068, which is satisfactory. According to Hair, Black, Babin, and Anderson (2010),the RMSEA value is less than 0.08, which represents a reasonable error of approximation. Another positive test result was the regular chi-square value of 1.827, a value that is below the criterion value of 3 (Bagozzi & Yi, 1988), to suggest good overall model performance. Thus from the results, the proposed research model has a good fit.

B. Result of Hypothesis testing

The hypothesized relationship paths were estimated to test structural relationships. Out of ten proposed hypotheses,eightwere supported at the p-value threshold of 0.05, and two were rejected. Figure 3 shows the path coefficient values and adjusted $R^{2,}$ the statistically unsupported links are shown by dotted lines without the path coefficient.Results are reported and shown in table 6.

Table 6. Results of the Hypotheses Testing

Hypothesis	Independent variable	Dependent Variable	Standardized Coefficients	p-value	Supported
H1	EE	BI	0.472**	0.002	**Yes**
H2	PE	BI	0.463**	0.004	**Yes**
H3	FC	BI	0.324**	0.004	**Yes**
H4	SI	BI	0.212**	0.002	**Yes**
H5	ITM	FC	0.463***	0.000	**Yes**
H6	ITM	SI	0.098	0.472	No
H7	ITM	CI	0.264**	0.001	**Yes**
H8	SI	CI	0.162	0.316	No
H9	FC	CI	0.264**	0.002	**Yes**
H10	BI	CI	0.562***	0.000	**Yes**

*Significance at ***P < 0.001, **P < 0.01.*

Eventually, the standardized direct, indirect, and total effects of the model are shown in table 7; nine of twelve Total effects were statistically supported.It is found that IT Mindfulness (ITM) with total effect on Continuance intention (CI) value 0.638 and Facilitating condition (FC) value 0.576 showed to have the strongest total effect on Continuance intention of Mobile payment system. The obtained results validate the current model, demonstrating the roles of IT Mindfulness and Facilitating Conditions in the continuance of the mobile payment system.

Table 7. Direct, Indirect, and Total Effects of The Model

DV	IV	1	2	3	4	5	6
BI	EE	0.47	0.472	-	0.472	0.001	**Y**
	PE		0.463	-	0.463	0.002	**Y**
	FC		0.324	-	0.324	0.000	**Y**
	SI		0.212	-	0.212	0.015	**Y**
FC	ITM	0.33	0.463	-	0.463	0.004	**Y**
SI	ITM		0.098	-	0.098	0.347	N
CI	EE	0.38	-	0.170	0.170	0.283	N
	PE		-	0.348	0.348	0.002	**Y**
	FC		0.264	0.312	0.576	0.000	**Y**
	SI		0.162	-0.052	0.110	0.312	N
	BI		0.562	-	0.562	0.002	**Y**
	ITM		0.272	0.374	0.646	0.001	**Y**

Note: 1- Adj-R^2; 2- Direct effect; 3- Indirect effect; 4- Total effect; 5- p-Value Total effect;6- Results Supported (p<0.005)

VI. DISCUSSION

Two main research questions were examined in this study. The first examined whether the social influence and facilitating conditions have any influence in the determination of initial adoption and continuance of mobile payment services. The second studied whether IT Mindfulness has an important role to play in determining the continuance of MPS. From our study, the following results emerge.

In the findings, all the UTAUT variables, Effort expectancy, performanceexpectancy, facilitating conditions, and social influence, are found to have a significant and direct influence on Behavioral intention to adopt MPS. In addition, facilitating conditions also have a strong effect on the continuance intention of MPS, while social influence is no longer significant in determining the continued intention of MPS. One rational explanation is that, over time, the effect of social influences through consumer

Behavioral intentions on continuance intention are diminished by increased userexperience. This result is consistent with the study (Yang et al., 2012)

It can be seen from Fig 3., Among the Facilitating conditions(FC),social influence(SI), and IT mindfulness(ITM),FC and ITM shows significant direct effect based on the path loadings.ITM is the most significant factor that influences the continued intention of MPS, as indicated by Total effect and significance levels.The results demonstrated in our research matches with the previous study conducted by Pal et al. (2020); the authors used unavailability of facilitating conditions under the barrier factor that influence the continuance of MPS, and this unavailability of facilitating condition found to be a major barrier that influences consumers from the continuance of MPS.These are also aligned with a number of recent e-commerce and Internet banking adoption studies on customer decision-making(Oliveira, Faria, Thomas, & Popovič, 2014; Rahi, Othman Mansour, Alghizzawi, & Alnaser, 2019).In specific, the results illustrate the significance of facilitating conditions and IT mindfulness in assessing behavioral intent that is often not considered because facilitating conditions are overlooked in the continuance of technology studies, and IT Mindfulness is not considered in consumer technology adoption studies.

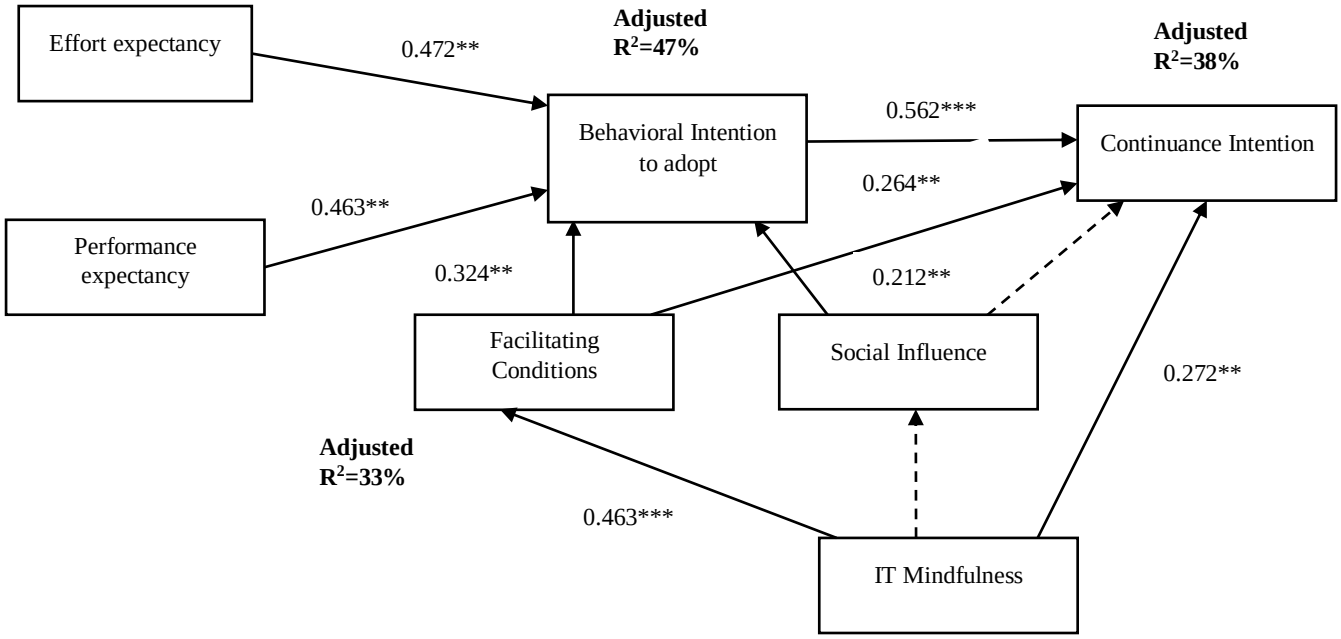

Fig. 3 Standardized path coefficients and adjusted R-squared values

A. Theoretical implications

The findings of this study revealed some interesting theoretical implications. First, its findings help us to gain a better understanding of the adoption factors that also play a significant role in the continuance of mobile payment systems. The study reveals that facilitating conditions and IT mindfulness are important determinants of the continuance of the Mobile Payment System. More notably, IT awareness plays a significant role in adoption through facilitating conditions and social influence. We believe that this research offers a holistic understanding of technology continuance decisions. We also expect this study to be a prelude to more work on the consumer for the continuance of payment technology based on mobile devices and other mobile technology-driven services.

This study has certain drawbacks, and future studies will allow potential changes. The respondents of this study are mobile payment system users only, and this study did not differentiate the users based on the Rogers technology adoption model, as different user categories will have different needs for facilitating conditions, and their IT mindfulness may vary. Multi-group research of different age groups, gender, and a deeper view of the user experience shall be considered for future studies. This study considered all mobile payment system users and not any particular applications and modes of usage, and future studies may include intervening variables like mode of the payment transaction (like QR,Phone number,account number) and value of money involved in the transaction.

VI. CONCLUSION

As an innovative financial processing method, mobile payment systems bring consumers and merchants together to complete payment transactions virtually.There are only a few studies are available to investigate the continuance of mobile payment systems. In order to satisfy the gap, the UTAUT model was used to explore factors that affect the adoption and continuance of the mobile payment system. The findings show that facilitating conditions and IT mindfulness of the mobile payment system are significant factors in the adoption and continuance of the mobile payment system. The result indicates that FC, ITM play a major role in deciding the adoption and continuance of MPS, while EE, PE, and SI only influence adoption behavior. These findings offer mobile payment service providers guidance for addressing consumer needs for MPS continuance.

REFERENCES

[1] Alwahaishi, S., & Snášel, V,. Consumers' acceptance and use of information and communications technology: A UTAUT and flow-based theoretical model. Journal of Technology Management and Innovation, 8(2) (2013) 61-73.

[2] Anderson, J. C., & Gerbing, D. W., Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach. Psychological Bulletin(1988). doi:10.1037/0033-2909.103.3.411

[3] Bagozzi, R. P., The legacy of the technology acceptance model and a proposal for a paradigm shift. Journal of the Association for Information Systems(2007). doi:10.17705/1jais.00122

[4] Bagozzi, R. P., & Yi, Y., On the evaluation of structural equation models. Journal of the Academy of Marketing Science(1988). doi:10.1007/BF02723327

[5] Barnett, T., Pearson, A. W., Pearson, R., & Kellermanns, F. W. Five-factor model personality traits as predictors of perceived and actual usage of technology. European Journal of Information Systems, 24(4) (2015) 374-390. doi:10.1057/ejis.2014.10

[6] Bhattacherjee, A., Understanding Information Systems Continuance: An Expectation-Confirmation Model. MIS Quarterly, 25(3) (2001) 351-351. doi:10.2307/3250921

[7] Boden, J., Maier, E., & Wilken, R., The effect of credit card versus mobile payment on convenience and consumers' willingness to pay. Journal of Retailing and Consumer Services, 52(2019) (2020) 101910-101910. doi:10.1016/j.jretconser.2019.101910

[8] Cao, X., Yu, L., Liu, Z., Gong, M., & Adeel, L., Understanding mobile payment users' continuance intention: a trust transfer perspective. Internet Research, 28(2) (2018) 456-476. doi:10.1108/IntR-11-2016-0359

[9] Chen, X., & Li, S., Understanding continuance intention of mobile payment services: An empirical study. Journal of Computer Information Systems, 57(4) (2017) 287-298. doi:10.1080/08874417.2016.1180649

[10] Chong, A. Y. L., Predicting m-commerce adoption determinants: A neural network approach. Expert Systems with Applications, 40(2) (2013) 523-530. doi:10.1016/j.eswa.2012.07.068

[11] Dahlberg, T., Guo, J., & Ondrus, J., A critical review of mobile payment research. Electronic Commerce Research and Applications, 14(5) (2015) 265-284. doi:10.1016/j.elerap.2015.07.006

[12] Dahlberg, T., Mallat, N., Ondrus, J., & Zmijewska, A. Past, present and future of mobile payments research: A literature review. Electronic Commerce Research and Applications, 7(2)(2008) 165-181. doi:10.1016/j.elerap.2007.02.001

[13] Davis, F. D., Bagozzi, R. P., & Warshaw, P. R., User Acceptance of Computer Technology: A Comparison of Two Theoretical Models. Management Science, (1989). doi:10.1287/mnsc.35.8.982

[14] de Albuquerque, J. P., Diniz, E. H., & Cernev, A. K. Mobile payments: a scoping study of the literature and issues for future research. Information Development.(2014). doi:10.1177/0266666914557338

[15] Dernbecher, S., & Beck, R., The concept of mindfulness in information systems research: a multi-dimensional analysis. European Journal of Information Systems,26(2) (2017) 121-142. doi:10.1057/s41303-016-0032-z

[16] Fornell, C., & Larcker, D. F., Evaluating structural model with unobserved variables and measurement errors. Journal of Marketing Research(1981).

[17] Garrett, J. L., Rodermund, R., Anderson, N., Berkowitz, S., & Robb, C. A., Adoption of Mobile Payment Technology by Consumers. Family and Consumer Sciences Research Journal, 42(4) (2014) 358-368. doi:10.1111/fcsr.12069

[18] Gupta, A., Yousaf, A., & Mishra, A., How pre-adoption expectancies shape post-adoption continuance intentions: An extended expectation-confirmation model. International Journal of Information Management, 52 (2020) 102094-102094. doi:10.1016/j.ijinfomgt.2020.102094

[19] Hair, J., Black, W., Babin, B., & Anderson, R., Multivariate Data Analysis: A Global Perspective. In 7 (2010).

[20] Iannacci, F., Fearon, C., & Pole, K., From Acceptance to Adaptive Acceptance of Social Media Policy Change: a Set-Theoretic Analysis of B2B SMEs. Information Systems Frontiers(2020). doi:10.1007/s10796-020-09988-1

[21] Im, I., Hong, S., & Kang, M. S., An international comparison of technology adoption: Testing the UTAUT model. Information and Management, 48(1) (2011) 1-8. doi:10.1016/j.im.2010.09.001

[22] Khan, J., & Craig-Less, M., Cashless transactions: perceptions of money in mobile payments. International Business & Economics Review, 1(1)(2009) 23-32.

[23] Khechine, H., Lakhal, S., & Ndjambou, P., A meta-analysis of the UTAUT model: Eleven years later. Canadian Journal of Administrative Sciences (John Wiley & Sons, Inc.), 33(2) (2016) 138-152.

[24] Kim, C., Mirusmonov, M., & Lee, I., An empirical examination of factors influencing the intention to use mobile payment. Computers in Human Behavior, 26(3) (2010) 310-322. doi:10.1016/j.chb.2009.10.013

[25] Kumar, K., Murimi, B., & Romalice, I., IoT Based Farmers' Smart Technology, Case Study: Rwanda Meteorology Agency, Kayonza District. International Journal of Computer Trends and Technology, 67(9) (2019) 1-6. doi:10.14445/22312803/ijctt-v67i9p101

[26] Kurfalı, M., Arifoğlu, A., Tokdemir, G., & Paçin, Y.. Adoption of e-government services in Turkey. Computers in Human Behavior, 66 (2017) 168-178. doi:10.1016/j.chb.2016.09.041

[27] Lallmahomed, M. Z. I., Lallmahomed, N., & Lallmahomed, G. M. (2017). Factors influencing the adoption of e-Government services in Mauritius. Telematics and Informatics, 34(4), 57-72. doi:10.1016/j.tele.2017.01.003

[28] Lu, J., Wei, J., Yu, C. S., & Liu, C. (2017). How do post-usage factors and espoused cultural values impact mobile payment continuation? Behavior and Information Technology, 36(2), 140-164. doi:10.1080/0144929X.2016.1208773

[29] Mallat, N. (2007). Exploring consumer adoption of mobile payments - A qualitative study. Journal of Strategic Information Systems, 16(4), 413-432. doi:10.1016/j.jsis.2007.08.001

[30] Martins, C., Oliveira, T., & Popovič, A. (2014). Understanding the internet banking adoption: A unified theory of acceptance and use of technology and perceived risk application. International Journal of Information Management,34(1), 1-13. doi:10.1016/j.ijinfomgt.2013.06.002

[31] Mensah, I. K. (2019). Predictors of the continued adoption of Wechat mobile payment. International Journal of E-Business Research, 15(4), 1-23. doi:10.4018/IJEBR.2019100101

[32] Oliveira, T., Faria, M., Thomas, M. A., & Popovič, A. (2014). Extending the understanding of mobile banking adoption: When UTAUT meets TTF and ITM. International Journal of Information Management, 34(5), 689-703. doi:10.1016/j.ijinfomgt.2014.06.004

[33] Oliveira, T., Thomas, M., Baptista, G., & Campos, F. (2016). Mobile payment: Understanding the determinants of customer adoption and intention to recommend the technology. Computers in Human Behavior, 61, 404-414. doi:10.1016/j.chb.2016.03.030

[34] Pal, A., Herath, T., De', R., & Rao, H. R. (2020). Contextual facilitators and barriers were influencing the continued use of mobile payment services in a developing country: insights from adopters in India. Information Technology for Development, 26(2), 394-420. doi:10.1080/02681102.2019.1701969

[35] Rahi, S., Othman Mansour, M. M., Alghizzawi, M., & Alnaser, F. M. (2019). Integration of UTAUT model in internet banking adoption context: The mediating role of performance expectancy and effort expectancy. Journal of Research in Interactive Marketing, 13(3), 411-435. doi:10.1108/JRIM-02-2018-0032

[36] Schaupp, L. C., Carter, L., & McBride, M. E. (2010). E-file adoption: A study of U.S. taxpayers' intentions. Computers in Human Behavior, 26(4), 636-644. doi:10.1016/j.chb.2009.12.017

[37] Singh, N., & Sinha, N. (2020). How perceived trust mediates merchant's intention to use a mobile wallet technology. Journal of Retailing and Consumer Services, 52(June 2019), 101894-101894. doi:10.1016/j.jretconser.2019.101894

[38] Sun, H. (2011). Making sound adoption decisions: a longitudinal study of mindfulness in technology adoption and continued use. Paper presented at the Proceedings of the 32nd InternationalConference on Information Systems, Shanghai, China.

[39] Sun, H., & Fang, Y. (2010). Toward a Model of Mindfulness in Technology Acceptance. Paper presented at the International Conference on Information Systems (ICIS).

[40] Sun, H., Fang, Y., & Zou, H. (2016). Choosing a Fit Technology: Understanding Mindfulness in Technology Adoption and Continuance. Journal of the Association for Information Systems, 17(6), 377-412. doi:10.17705/1jais.00431

[41] Tarhini, A., Arachchilage, N. A. G., Masa'deh, R. e., & Abbasi, M. S., A Critical Review of Theories and Models of Technology Adoption and Acceptance in Information System Research. International Journal of Technology Diffusion, 6(4)(2015) 58-77. doi:10.4018/ijtd.2015100104

[42] Teo, A. C., Tan, G. W. H., Ooi, K. B., & Lin, B. (2015). Why consumers adopt mobile payment? A partial least squares structural equation modeling (PLS-SEM) approach. International Journal of Mobile Communications, 13(5)(2015) 478-497. doi:10.1504/IJMC.2015.070961

[43] Thatcher, J. B., Wright, R. T., Sun, H., Zagenczyk, T. J., & Klein, R., Mindfulness in Information Technology Use: Definitions, Distinctions, and a New Measure. MIS Quarterly, 42(3) (2018) 831-847. doi:10.25300/misq/2018/11881

[44] Venkatesh, Morris, Davis, & Davis., User Acceptance of Information Technology: Toward a Unified View. MIS Quarterly, 27(3)(2003) 425-478. doi:10.2307/30036540

[45] Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. Unified Theory of Acceptance and Use of Technology: Toward a Unified View. MIS Quarterly, 27(3) (2003) 425-478. doi:10.2307/30036540

[46] Venkatesh, V., Thong, J., & Xu, X., Consumer acceptance and user of information technology: Extending the unified theory of acceptance and use of technology. MIS Quarterly, 36(1) (2012) 157-178. doi:10.1111/j.1365-2729.2006.00163.x

[47] Voorhees, C. M., Brady, M. K., Calantone, R., & Ramirez, E., Discriminant validity testing in marketing: an analysis, causes for concern, and proposed remedies. Journal of the Academy of Marketing Science(2016). doi:10.1007/s11747-015-0455-4

[48] Williams, M. D., Rana, N. P., & Dwivedi, Y. K., The unified theory of acceptance and use of technology (UTAUT): A literature review. Journal of Enterprise Information Management, 28(3) (2015) 443-448. doi:10.1108/JEIM-09-2014-0088

[49] Yang, S., Lu, Y., Gupta, S., Cao, Y., & Zhang, R., Mobile payment services adoption across time: An empirical study of the effects of behavioral beliefs, social influences, and personal traits. Computers in Human Behavior, 28(1) (2012) 129-142. doi:10.1016/j.chb.2011.08.019

[50] Zhang, J., & Mao, E., Cash, credit, or phone? An empirical study on the adoption of mobile payments in the United States. Psychology & Marketing, 37(1) (2019) 87-98. doi:10.1002/mar.21282

[51] Zhou, T. (2013). An empirical examination of continuance intention of mobile payment services. Decision Support Systems, 54(2), 1085-1091. doi:10.1016/j.dss.2012.10.034

[52] Zhou, T. (2014). Understanding the determinants of mobile payment continuance usage.Industrial Management and Data Systems,114(6), 936-948. doi:10.1108/IMDS-02-2014-0068

[53] Zhou, T., Lu, Y., & Wang, B., Integrating TTF and UTAUT to explain mobile banking user adoption. Computers in Human Behavior, 26(4) (2010) 760-767. doi:10.1016/j.chb.2010.01.013