

The impact of intention to use on Loyalty of E banking users : A UTAUT2 perspective

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Abstract:

E-banking has revolutionised the banking industry, offering increased accessibility, convenience and efficiency to users while also enhancing security measures to safe guard sensitive financial information. Venkatesh et al (2012) seven constructs were used. Of 7 UTAUT2 constructs firstly, facilitating condition which is the customer belief that the use of E- banking technology facilitate him / her to do the banking transaction with enjoyment and provides benefit. Secondly, the habit is another strong influencer of the behavioural intention to use online banking facility.

Keywords: E- banking, Banking, UTAUT2, Loyalty

Introduction

The introduction of E-banking in the Indian banking industry changed the relationship between the bank and its customers. The surge in the adoption of a banking services, stems from customers preference for utilising smartphones and web browsers, amid the fear of the widespread virus and adherence to social distancing rules. This shift in consumer behaviour, prompted by the Covid – 19 pandemic, has significantly boosted the growth of a banking market and is projected to continue its dominance over the next decade. E-banking has revolutionised the banking industry, offering increased accessibility, convenience and efficiency to users while also enhancing security measures to safe guard sensitive financial information

Digital payment transactions have significantly increased as a result of coordinated efforts of the Government as a whole, along with all stake holders concerned, from 2,071 crore transactions in FY 2017-18 to 8,840 crore transactions in FY 2021-22 (Source: RBI, NPCI and banks). During last five years, various easy and convenient modes of digital payments, including Bharat Interface for Money-Unified Payments Interface (BHIM-UPI), Immediate Payment Service (IMPS), and National Electronic Toll Collection (NETC) have registered substantial growth and have transformed digital payment ecosystem by increasing person-to-person (P2P) as well as person-to-merchant (P2M) payments. BHIM UPI has emerged as the preferred payment mode of the citizens and has recorded 803.6 crore digital payment transactions with the value of ₹12.98 lakh crore in January 2023

Growth of Digital Payments in India and availability of various easy and convenient digital payment solutions have facilitated ease of living for citizens, financial inclusion, and growth of business and economy. Recently launched UPI 123PAY enables feature phone users to

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make digital transactions through UPI in assisted voice mode, facilitating digital transactions and financial inclusion in rural areas. Indian Fintech industry is estimated to be at US\$ 150 billion by 2025. India has the 3rd largest FinTech ecosystem globally. It is one of the fastest-growing Fintech markets in the world. There are currently more than 2,000 DPIIT-recognized Financial Technology (FinTech) businesses in India, and this number is rapidly increasing.

The success of self-service technologies like internet banking depends on the adoption by the customers. Customers' adoption and usage of internet banking influenced by many factors: customer related factors and company related factors. While studying the customer perception, behaviour and / or acceptance about the internet banking in different economies, it is found that two school of research and empirical studies: firstly, studies have adopted the Technology Acceptance Model and tested the model by adding and integrating some additional variables with base TAM, and Secondly, studies with the kinds of exploratory and explanatory studies have applied UTAUT and other technology adoption models. In unified theory of acceptance and use of technology (UTAUT2), Venkatesh et al (2012) outlined that the UTAUT2 is tailored to consumer use context compared to that of UTAUT by adding three additional construct namely hedonic motivation, price value and habit along with performance expectancy, effort expectancy, social influence and facilitating condition. Authors like Samar Rahi et al (2017), Baabdullah et al (2019), Anna-Sophie Oertzen et al (2019) and others have emphasized that intention to adopt result in loyalty. In this context, this study attempted to apply the UTAUT2 model and identify the key factors influencing such user intentions and frequency of use of online banking adoption as well as the effect of intention to adoption on loyalty.

Theoretical Framework

There are many theories related to adoption of technology explain the drivers and barriers of technology adoption at the firm level and customer level. Roger's theory of diffusion of innovation (1995) comprehended with four elements – innovation, innovation, communication channel, time and social system, but failed to provide the outcome of technology and acceleration of the rate of adoption of technology (Minishi-Majanja and Kiplang'at, 2005). Secondly, theory of task-technology fit (TTF) by Goodhue, RL Thompson (1995) highlights the nexus between adoption of technology and user performance at organizational level, however some researchers have applied the theory TTF at user / customer level in various context. Third important model and widely acknowledged as base for many technology acceptance or adoption model is from Fishbein and Ajzen (1975) - Theory of Reasoned Action (TRA) with two constructs namely attitude and subjective norms predicts the behavioural intention, in turn behaviour intention predicts behaviour of technology user. Later, Ajzen (1991) added perceived behavioural control with attitude and subjective norms to predict the behavioural intention and developed Theory of Planned Behaviour (TPB). Based on TRA and TPB, decomposed theory of planned behaviour was developed by Taylor and Todd (1995) who paid attention on the direct determinants of

behavioural intention and the relationship between behavioural intention and user's actual behaviour. After the comparison of eight models related to the technology acceptance and adoption, Venkatesh et al., (2003) developed a very comprehensive theory on user acceptance of technology called Unified Theory of Acceptance and Use of Technology (UTAUT) from the organizational perspective and later Venkatesh et al (2012) modified UTAUT with additional variables like price, hedonic motivation and habit, and developed UTAUT2 from the customer point-of-view on the adoption of technology.

There are several models were evolved over a period of time to explain the acceptance of technology notably, Technology Acceptance Model by Davis (1989), and TAM 2 (Venkatesh and Davis, 2000) and TAM3. Originally, the TAM based models have illustrated users' acceptance of technology at organizational level, nevertheless some researchers have adopted these models examine the customers' acceptance of technology in various sectors including e-learning, e-banking, m-banking, e-commerce etc. Other significant models are (a) motivational model and (b) The Model of PC Utilization (MPCU).

Many authors after the systematic review of technology acceptance or adoption revealed that the user's acceptance of technology could be better explained with the use of UTAUT, TAM and DOI. Tamilmani et al., (2017) noted from the systematic review that 23% UTAUT2 utilization is way higher than the application of UTAUT in explaining technology acceptance and the reason is that UTAUT2 focuses customer perspective on technology rather than organizational perspective.

Earlier Studies

Rahi et al., (2018) applied UTAUT2 for studying the determinants of Pakistan commercial banks' customers' adoption of internet banking and found that FC, PV, and Habit are not significantly influencing intention to adopt internet banking and all other constructs of UTAUT2 positively affect the behavioural intention. Sanchez-Torres et al., (2018) identified that trust, PE and EE are significant impacts the adoption of e-banking by Colombian bank customers. Yaseen and El Qirem (2018) have added e-banking service quality with four constructs of UTAUT2 namely PE, EE, SI and HM for identifying critical factors on e-banking adoption of Jordanian commercial bank customers. The study found that SI, EE and e-banking service quality strongly influences intention to adopt e-banking, however PE and HM were found to be insignificant factors. Alalwan et al., (2017) found that PE, PV, EE, and HM are significant predictors of behavioural intention. However, social influence is the insignificant factor on behavioural intention. BI and FC are positively and strongly affects adoption of online banking by Jordanian bank customers. The authors have not included the Habit in their study, however incorporated trust as a predictor and its positively affects the behavioural intention.

ChauhanV(2022) the study identifies the intention of consumers to adopt various e-banking services. The study adopted the UTAUT2 model (Unified Theory of Acceptance and Use of Technology) and extended it with constructs such as consumer innovativeness, perceived risk, and security information availability. An empirical examination of the model helped explain the impact of the UTAUT2

model's constructs in predicting adoption intention toward e-banking services. It also revealed the importance and impact of newly incorporated variables in explaining consumers' adoption intention toward e-banking services and factors influencing consumers' intention to adopt e-banking services.

Arenas Gaitan et al., (2015) applied UTAUT2 model to predict elderly customers adoption of internet banking and described that SI, HM and FC are not significant factors influencing the elderly users' intention to adopt the online banking, however PE, EE, PV and Habit are positively and significantly influences the intention. On use, except FC, BI and Habit strongly predict the use of internet banking.

Arshian Sharif and Syed Ali Raza (2017), The study strives to examine the role of hedonic motivation, self-efficacy, trust, habit and behavioural intention variables in predicting individuals' adoption of internet banking. The empirical findings established the significant and positive contribution of hedonic motivation (HM) on trust (T). Along with this, hedonic motivation (HM), trust (T), self-efficacy (SE) and habit (H) showed a positive and significant impact on behavioural intention (BI). Finally, results revealed that habit (H) and behavioural intention (BI) have a significant and positive impact on the user's intention to adopt internet banking (A)

With structural equation modelling approach, Tarhini et al., (2016) found that PE and SI are the strong influencing factors of behavioural intention of internet banking in Lebanon, but effort expectancy fail to predict the intention. The authors also highlight FC and BI are the significant factors influences use of internet banking. By studying major constructs of UTAUT2 model namely social impacts, price value and facilities, Salim et al., (2016) indicates price value and social impacts are the strongly determines the adoption of internet banking Sudan bank customers. Martins et al (2014) found that the strong influencers of intention to adopt online banking are PE, EE, and SI, along with UTAUT2 constructs the role of risk was noted as a stronger predictor. Among three constructs on the determinants of use of internet banking, only behavioural intention influences use of Internet banking.

Malik Khlaif Gharaibeh & Muhammad Rafie Mohd Arshad (2018) findings reveals that the most vital constructs explaining mobile banking adoption are mass media, trust, EE, PE, FC, and SI. While in their study they had HM which seems to be insignificantly associated with adoption of mobile banking services. They have also stated that further research can be addressed on the relationship between HM and mobile banking adoption.

Rawwash H et al (2020), study aimed to identify the factors influencing on electronic banking services provided by Jordanian banks. It was found that perceived usefulness, ease of use, trust and privacy directly and positively influenced on e-banking usage. Convenience was found to have no effect on e-banking services.

Ramon Palau-Saumell et al. (2019) findings confirm the need to extend and expand UTAUT-2 by incorporating perceived credibility and the social norm approach. The results exhibit that habit, PC, HM, price-saving orientation, EE, PE, SI, and FC. Habit, FC, and intentions to use are significantly related to use. The study by Yendra et al., (2017) describes customers' perceptions, consisting of usefulness, ease of use, privacy, and security partially and significantly had positive influences on users' trust, but did not influence customers' intention to use internet banking. Baabdullah, A., et al (2019) found that the main factors – PE, PV, FC, HM, habit, system quality and service quality have a significant impact on actual use behaviour.

Kajenthiran Konalingam et al., (2017) the study was done to investigate a comprehensive mechanism for enhancing customer loyalty to banks via e-banking practices. The results indicate that customer loyalty was influenced by content & website layout, privacy & security, and accessibility. Samar Rahi et al., (2018) confirmed that PE, EE, SI, HM and perceived technology security had significant influence on user's intention to adopt internet banking. The authors also confirmed that the intention to adopt positively influences the intention to recommend.

Shamsul Anuar Mokhtar et at., (2017) describes customers 'loyalty is predicted by two antecedents ' namely mobile banking adoption and customers 'satisfaction. Mobile banking adoption also positively influences customers 'satisfaction.

Research Questions:

1. Whether the constructs of UTATU2 positively influence the behavioural intention of the E-banking customer?
2. Is there a positive effect of intention to adopt E-banking on loyalty? and
3. Is frequency usage fully mediate the effect between behavioural intention and loyalty?

Accordingly the conceptual model of the study is given in Figure 1.

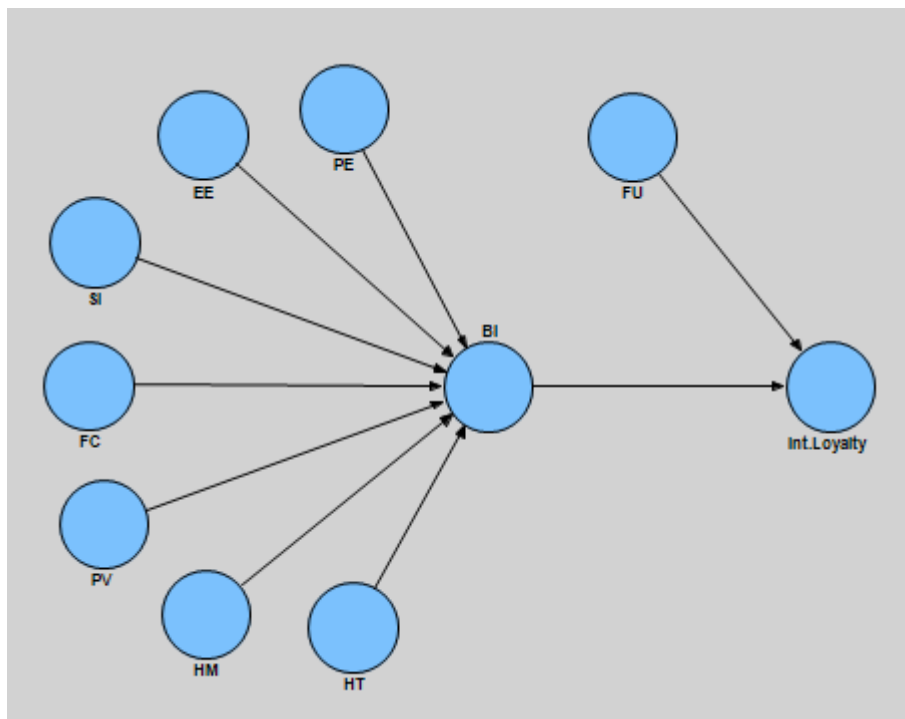


Fig. 1 UTAUT2 – Conceptual Model

Methodology

The primary data for the study collected from the internet banking customers of Indian Commercial Bank in Maharashtra State. Based on the literature review, the scale items developed by Venkatesh et al (2012) are used for seven constructs namely, performance expectancy, effort expectancy, social influence, facilitating condition, hedonic motivation, price value and habit, and behavioural intention to use.

After the pilot study, the final instrument viz., questionnaire was administered with 278 internet banking customer with the non-probability sampling procedure – convenience sampling technique in different places in Maharashtra State. Out of 216 questionnaires were used for the purpose of answering research questions. The statistical tool partial least square – structural equation modelling and boot-strap method is used for find the answers to the questions.

Results and Findings

Out of 272 respondents, 59.2 per cent and 40.8 per cent are with less than 25 years of age and greater than 25 years of age respectively. 77.6 per cent of the participants of the study are male and 22.4 per cent of the participant are females. 52.9 per cent are with post-graduation and above qualification. 54.05 per cent of the respondents are having more than or equal to 5 years of association with the banks where they have different form of account.

Table 1: Profile of the Respondents

Age	Frequency	Percent
Less than 25 Years	161	59.2
>=25 Years	111	40.8
Total	272	100.0
Gender		
Male	211	77.6
Female	61	22.4
Educational Qualification		
Graduate	128	47.1
Postgraduate & Above	144	52.9
Years Of Association		
Less than 5 Years	125	45.95
>=5 Years	147	54.05

Table 2: Reliability and Validity Tests – UTAUT2 Constructs

Constructs	AVE	Composite Reliability	Cronbachs Alpha
BI	0.722	0.886	0.808
EE	0.588	0.850	0.765
FC	0.542	0.825	0.718
HM	0.755	0.903	0.840
HT	0.636	0.875	0.809
Int.Loyalty	0.848	0.917	0.821
PE	0.617	0.865	0.796
PV	0.684	0.866	0.769
SI	0.774	0.911	0.854

PE – Performance Expectancy, EE-Effort Expectancy, SI-Social Influence, FC-Facilitating Condition, HM-Hedonic Motivation, PV-Price Value, HT-Habit, BI-Behavioural Intention and Int.Loyalty-loyalty intention.

It is noted from the reliability validity tests on the UTAUT2 constructs that the cronbach's alpha of all constructs is ranging from 0.671 to 0.849, thus the reliability is ensured. Additionally, the values related to composite reliability and average variance extracted (AVE) confirmed the validity of the constructs.

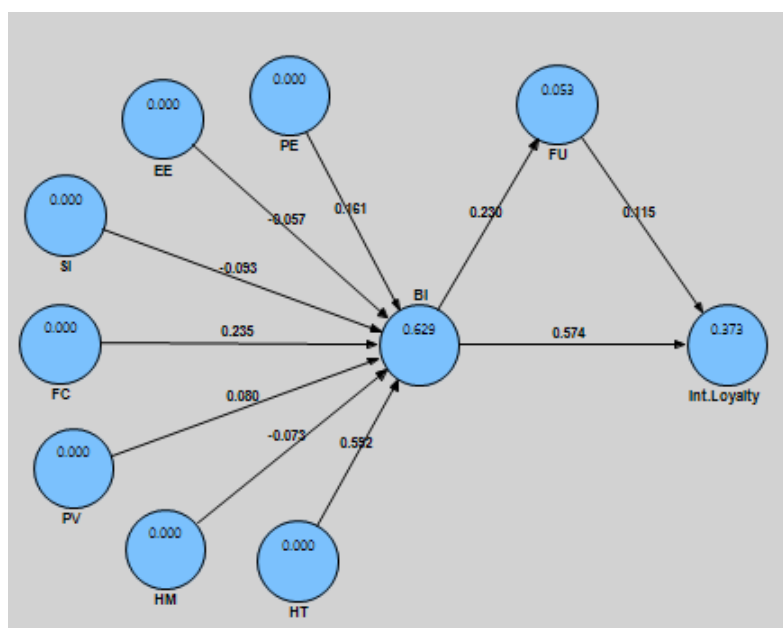
The results of UTAUT2 model (Table 3) related to the predictors of behavioural intention (BI) indicates that HT ($\beta=0.592$, $t=4.798$), PE ($\beta=0.161$, $t=1.744$) and FC ($\beta=0.235$, $t=1.967$) are the significant factors affect the behavioural intention of E- banking adoption of customers. The other constructs, EE, HM, PV and SI are not statistically significant.

The strong predictor of E- banking loyalty is BI ($\beta=0.574$, $t=6.715$) compared to that of FU. The constructs of UTAUT2 model explains 62.9% of variation on behavioural intention to use E banking.

Table 3: UTAUT2 – Path Coefficients of Structural Inner Model

Effect	Path Coefficient	t-value	Mediation		
EE -> BI	-0.057	0.529	Direct Effect		
FC -> BI	0.235	1.967**	BI -> Loyalty	0.601	8.614
HM -> BI	-0.073	0.812	R-Square		0.361
HT -> BI	0.592	4.798*	BI -> Loyalty	0.574	6.863*
PE -> BI	0.161	1.744 [@]	BI->FU	0.229	3.547*
PV -> BI	0.080	0.774	FU -> Loyalty	0.115	2.078*
SI -> BI	-0.093	0.947	R-square		0.373
R-square		0.629			

The behavioural intention explains a 36.1% variation in loyalty of E-banking users. On the mediation analysis, the direct effect on E- banking loyalty was positive ($\beta=0.601$, $t=8.614$) and statistically significant. After the introduction of FU as a mediation variable, the path coefficient of FU ($\beta=0.229$, $t=3.547$) is positive and also significant at 0.01 level. There is a marginal reduction in the path co-efficient ($\beta=0.574$, $t=6.863$) value of BI on loyalty. The R-square value has increased from 0.361 to 0.373.



On the predictors of behavioural intention, FC, HT and PE are the better predictors of the adoption of E- banking compared to that of EE, HM, PV and SI. The insignificant predictors

do not demonstrate the original finding of Venkatesh et al (2012). The findings related to FC, HT and PE are very similar some other researchers who have noted that either all three constructs of this study or two of the constructs are the strong predictors of the E- banking adoption intention.

The attempt on direct effect of BI on loyalty reveals that intention to adopt E-banking facilities influence significantly the user to recommend and reuse (commonly known as repurchase in marketing literatures) of E- banking. The findings in line with Kajenthiran Konalingam et al., (2017), Samar Rahi et al., (2018) and Shamsul Anuar Mokhtar et at., (2017).

Conclusion

The research questions of this study to comprehend the significant factors under UTAUT2 model on the behavioural intention to adopt the E- banking from the customer point of view. Of 7 UTAUT2 constructs firstly, facilitating condition which is the customer belief that the use of E- banking technology facilitate him / her to do the banking transaction with enjoyment and provides benefit. Secondly, the habit is another strong influencer of the behavioural intention to use online banking facility. Finally, facilitating condition by the banks makes the customer to use and adopt the online banking features i.e. the bank customers are maintaining long term relationship with customer, bank provides facility for the longer period of time and queries are clarified when customer faces issues in use of technology and make the customer to habituate the technology on regular use. The loyalty that measures in terms of intention to recommend and reuse strongly influenced by the intention adoption of E- banking. The mediation analysis demonstrates that there is a partial mediation role played by frequency of use between intention to adopt and loyalty.

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