

Examining the Adoption of Self-Service Technologies in Indian Banking Industry: A Case of Retail Bank Customers

Aman Rajoriya^{1*}, Shashank Rana², Sushil Kumar Pandey³, Padiga Varun Kumar⁴

^{1,2,3,4}Mittal School of Business, Lovely Professional University, Phagwara, India

Abstract: The main objective of this research is to assess the adoption of Self-service technologies in Indian banking industry. (consumer's intention to use SSTs in daily life). The goal is to examine that how frequently consumers use these technologies and how well they are aware about it, are they loyal in using these technologies, will they continue to use the in the future. For collecting the responses 37 questions were circulated with 300 respondents and data was analyzed using SPSS. The study adds to the existing body of knowledge and thus contribute to the current understanding on the topic of SST adoption in Indian banking industry.

Keywords: Adoption, Retail banking, Self-service, Technology.

1. Introduction

The Indian banking industry has a large background covering the conventional banking market. Practices from the British to the reform era, nationalization to banking privatization and the number of foreign banks in India is now growing. Banking was therefore in India a long journey (Dr. K. A. Goyal & Vijay Joshi, 2012) A long way. In India, the banking industry has reached a new standard with the Times of transition. The use of technology contributed to a revolution in the banks' working style. The basic aspects of banking however, namely trust and people's faith, the organization will continue to be the same. The majority of the banks continue to be profitable the shareholders 'and other stakeholders' trust. The improvement, however, banking dynamics introduces new forms of vulnerability to risks.

India has now become an extremely competitive general banking scenario a day away. The Indian Banking picture was completely different before the pre-liberalization period, when the Indian Government introduced steps to engage actively in the country's economic activity, although the government adopted in 1948 an industrial policy resolution calling for a mixed economy (Vijay Joshi, 2012). The state's presence has been increased in various economic sectors, including banking and finance.

In India, there is a rising trend in the banking sector. The increase in disposable income of citizens in the country has greatly benefited. Transactions by ATMs and internet / mobile banking have also increased dramatically. The numerous banks

have subsequently invested heavily to extend the banking network and reach their customers. According to its KPMG-CII report, the banking industry in India is likely to become the fifth largest banking industry in the world by 2020 and the third largest by 2025 (Goyal, 2012). Indian banks have implemented and improved their expertise in better operating strategies. They have faced the initial difficulties and adapted to the changing world. In the dynamic, rapidly evolving climate, banking offers its customers an optimal mix of technology and conventional service the only sustainable competitive advantage.

Banking is to be considered as pure financial service industry and responsible for the economic development of an economy up to great extent. Satisfaction of customers is the vital for retaining existing customers and attracting prospective customers to widen the level of operational activities in any concern (Pan, S. 2015). In India, Private and Public banks are rendering financial services. The Policies and Strategies of Private and Public banks are different that leads variation in the customers' satisfaction level.

Table 1
The top 10 Public and Private sector banks in India

Public Sector Banks	Private Sector Banks
State Bank of India (SBI)	ICICI Bank
Punjab National Bank	HDFC Bank
Union Bank of India	Axis Bank
Canara Bank	IDBI Bank
Bank of Baroda	Yes Bank
Bank of India	Kotak Mahindra Bank
Central Bank of India	IndusInd Bank
Indian Bank	Federal Bank
Indian Overseas Bank	IDFC First Bank
Bank of Maharashtra	Jammu and Kashmir Bank

A. Banking Technologies

In a changing scenario, from product-centric to customer-centric approaches, the attention of marketers has changed to their consumers and more intentionally to their experiences (Kaushik & Rahman, 2015). Many creative financial solutions for insurance, credit and transaction processing services have evolved. Significantly in the last few decades. The effect has been especially profound in the field of services through the advancement of self-service technologies (SSTs). Recently,

*Corresponding author: amanrajoriya@gmail.com

four specific forms of self-service banking technologies (SSBTs) available have had a major effect on the delivery of conventional banking services (Kaushik & Rahman, 2015). First, automated teller machines (ATMs), which began in the late 1970s; electronic transfer of funds at the point of sale, implemented in the early 1980s; telephone banking in the mid-1990s; and Internet banking (IB), which appeared in the late 1990s. As the twenty-first century evolves, all these SSBTs play a key role in the banking service delivery process.

2. Literature Review

Recently, the key objective for scholars and practitioners worldwide is to investigate and explain consumer intentions and hence the adoption of SST. The online banking literature concerned has shown dramatic growth in this area. In reality, researchers are increasingly deciding to understand how customers formulate their expectations, attitudes, purpose and behaviour towards mobile banking by using various approaches and according to a set of theoretical foundations.

For example, the Lee, McGoldrick, Keeling and Doherty (2003) early qualitative study shows features that an important role in shaping consumers' attitudes towards the adoption of mobile banks is innovation (relative advantages, compatibility, trial ability and complexity). Similarly, the company claimed (Püschel *et al.* 2010) that Brazilian customers had a significant impact on relative profit and compatibility; ultimately enriching their mobile banking intent. Brown (Cajee, Davies, Stroebel, 2003) has been established. In South Africa, banking customers are more enthusiastic about mobile banking through relative advantages, trial ability and requirements of consumer banking. Similarly, (Lin, 2011) identified easy use, customer confidence (integrity and expertise), relative advantage and usability as key drivers of mobile banking clients' behaviour, and ultimately encouraged customers' willingness to engage in mobile banking.

Recently, Purwanegara *et al.* (2014) assured Indonesia that perceived benefits and government regulations play an important role in shaping consumer mobile banking as helpful in their lifestyle, compatible with their preferences and other technology, and less costly, customers seem to be more likely to use mobile banking. Riquelme and Rios (2010) in Singapore revealed that the role of perceived usefulness and social expectations had a beneficial effect on the willingness of customers to embrace mobile banking and The degree of perceived risk was negatively predicted. Empirically, Zhou (2012) confirmed the important role of a bank in building the initial trust in mobile banking, quality of information, self-efficacy, service quality and quality of the system. However, Cruz *et al.* (2010) acknowledged that non-users of mobile banking paid less attention to data problems, lack of observation and improper devices

Yang (2009) saw the fears of consumers about safety problems and initial costs related to repairing web connections as primary barriers to the adoption of mobile banking. Customers are less likely to simply embrace mobile banking, in line with Yu (2012) and Hanafizadeh *et al.* (2014), if they consider a higher monetary cost relative to other conventional

channels. In addition, Jeong and Yoon (2013) found that when predicting the intention of a consumer to embrace mobile banking, financial costs were the smallest significant factor. Perceived risk was widely seen a negative factor preventing the mobile banking trend of customers. In conclusion, although such studies provide additional insight on the key factors that forecast the intention and use of mobile banking by customers, it is necessary to explain other important aspects.

First, as an entirely new technology, pioneering, mobile banking is taken into account and intrinsic motivation as described in IS/IT (Brown and Venkatesh, 2005; van der Heijden, 2004; Venkatesh, Thong and Xu, 2012) could play an important role in motivating the intention of banking. Secondly, price problems were found to be important in the consumer sense, in line with Venkatesh *et al.* (2012), and the consumer, when adopting or rejecting innovations, received particular attention. Furthermore, consumer services seem to weigh the costs of using modern technology and hence (for example, mobility, utility and expected performance) (Zhou, 2012) or concentrated on the corresponding financial cost an obstacle to the use of mobile banking (Hanafizadeh *et al.*, 2014), while the value or price of Not well covered with the use of mobile banking. Thus, as a creative technology with different values, the use of it could also bring an additional cost.

More importantly, scientists developed numerous IS / IT models and hypotheses, The Technology Acceptance Model (TAM) by Gu *et al.* (Davis, Bagozzo and Warshaw, 1989, *et c.*) such as: Lin, Kim, Shin and Lee's Innovation Diffusion Theory (IDT) (Rogers, 2003) [2009]; Luarn's and Lin's (2005) idea of expected conduct (TPB) (Ajzen, 1991); Decomposed Planne Theory (2009) However, it turned out that most hypotheses and models were initially organizationally conceived. (e.g. TAM and UTAUT) after more reflection (Venkatesh *et al.*, 2012). In customer-focused contexts, this results in a priority about their applicability (Venkatesh *et al.*, 2012). Therefore, the theoretical structure relevant to the consumer context (i.e. individual users) needs to be selected because of a disparity in terms of whether and how consumers and the organisational context variables will influence the purpose and actions of the individual towards technology (Venkatesh *et al.*, 2012). This structure should also be capable of covering the key aspects relating to the purpose and acceptance of mobile banking by individual customers.

A. Conceptual Model

The expressly suggested extension of the verified and Unified Theory of the Acceptance and Use of Technology (UTAUT2) of technology from the viewpoint of the consumer. Therefore, UTAUT2 was found to be the theoretical base to propose the conceptual model used in this analysis in the search to select an acceptable model covering almost all constructs that decide Indian user intent and the adoption of SST. The key constructs in the UTAUT2 were proposed as direct determinants of the intention of customers to embrace E-wallet: Expected performance (PE), expected commitment (EE), social effect (SI), hedonic drive (HM) and value for the amount (PV). In accordance with Venkatesh *et al.* (2012), two variables were established as main predictors of E-wallet adoption behaviour:

behavioural intention (BI) and Facilitating conditions (FC). Instead of what Venkatesh et al. (2012) suggested, the role of habit is not considered by the current research model.

This was focused on the fact that consumers should have a rich experience using such technologies Exploring the habit's function. Many of the current research respondents are potential consumers who have not tested or used this type of technology a method. In addition, Indian Public Sector Banks have recently launched mobile banking, which takes ample time for Indian customers to formulate their normal behaviour for such an application. The role of habit in the current study was thus difficult to analyse and it was agreed to eliminate the habit's function.

Trust (TR) was strongly approved a key factor evaluating the perception and intention of customers to follow SST in mobile banking, according to previous mobile banking literature. This interest may be due to the peculiar nature of electronic banking services, which are characterized by a high degree of ambiguity associated with and which could be defined as high risk the essence of financial service. TR was thus incorporated into the same conceptual model as highly suggested by Venkatesh et al. as an external consideration. (2012) as an extension to UTAUT2 in order Extending UTAUT2's theoretical horizon.

1) *Performance expectation*

In general, if you find this technology to be stronger and more useful in your daily life, clients tend to be more driven to use and embrace modern technology (Alalwan, Williams & Dwivedi, 2016; Davis, etc., 1989; Venkatesh et al., 2003). Mobile banking was also commonly considered to be more realistic platform, according to previous literature, enabling consumers access. In their research evaluating mobile payment acceptance, Zhou et al. (2010) concluded that the anticipated outcomes are substantially predetermined by customers' plan to use mobile payments.

H1. Performance standards would affect the intent of Indian customers to adopt SST positively.

2) *Effort Expectancy*

EE was described by Edinbrough et al. (2003)." In conjunction with Davis et al. The aim of the individual (1989) is not only to implement a new system predicting the positive value of the system, but also how difficult it is not to achieve to use this system and needs free effort. Therefore, because of the peculiar nature of mobile payments that involve a certain level of expertise and ability, the expectation of effort could play a crucial role in deciding the intention of Clients are using this technology (Alalwan, Dwivedi, Rana, Williams, 2016). Impact of effort standards on the intention of customers to use online banking has been validated by several authors in the related area of interest (Alalwan, Dwivedi, & Williams, 2016; Martins, Oliveira, & Popovic, 2014). Different Mobile Banking studies have confirmed that captured EE (i.e. perceived ease of use) variables play a crucial role to predict customer's Mobile banking intention (Gu et al., 2009; Luarn and Lin, 2005; Riquelme and Rios, 2010). The following assumptions are presumed in that analysis.

H2. Efforts would have a positive effect on the intention of

Indian customers to embrace SST/mobile payments.

H3. Expectations of effort would have a positive effect on mobile payment results

3) *Social influence*

Social impact is described as "the extent to which an individual understands that others consider the new to be themethod' according to the UTAUT model (Venkatesh et al., 2003). The effect of the social environment on the consumer's decision to adopt mobile payments can be conceptualised as social, e.g. referral networks, relatives, opinion-oriented officials.

H4. Social impact would have a positive effect on Indian clients' intention to accept SST

4) *Facilitating Conditions*

Conditions of facilitation are described as " the system is usedis enabled by an organisational and technological infrastructure "(Venkateshet al., 2003). Indeed, a specific form of expertise, resources and technological infrastructure is typically needed for the use of online banking channels. Consequently, if mobile payments compatible with other technology they have used and if they have a certain degree of support and service, consumers will be more likely to use mobile payments. Theoretically, numerous online banking studies have supported the effect of enabling conditions on the use conduct of mobile payments. As per this study this hypothesis is given:

H5. The requirements for promoting adoption of Indian SST would have a positive effect.

5) *Hedonic motivation*

A strong link was proposed between the hedonic drive and the intention of clients to use technology by Venkatesh et al. (2012). In the model itself (i.e. performance, utility, anticipation of success) hedonic motivation alongside extrinsic services, intrinsic utilities (i.e. pleasure, fun, playfulness, training, and enjoyment) have been included in (Venkatesh et al., 2012). Indeed, it has been highly argued in the IS literature that intrinsic utilities could have a curious role in accelerating the intention of the person to implement emerging systems (i.e. van der Heijden, 2004). In the case of hedonic structures characterizing a high degree of innovation and individuality, this function seems to be more powerful, as in the case of mobile payments in India. For example, (Alalwan, Dwivedi, and Williams 2016) provided strong evidence to support the role of hedonic motivation in shaping the decision of Indian Customers to customer acceptance of SSTs. This hypothesis is given according to this study:

H6. Hedonic drive would positively affect the adoption of SST by Indian customers

6) *Price value*

Compared to organisational sitting, the use of technology in the context of customers could bring additional financial costs to customers. Customers should also cognitively equate the services included with the financial expense that should be charged for using those systems in the use of new systems (Venkatesh et al., 2012). In other words, with the higher positive price value ratio, consumers will be more excited about the introduction of new technologies. In turn, this allows clients

to consider the use of technology, greater the benefits along with value more the cost charged (Venkatesh et al., 2012). To be precise, all the infra and material needed to run mobile payments (e.g. 4 G networks, smart phones, Wi-Fi) could assign additional financial costs to consumers, thereby strengthening the essential role of price value in the conceptual model. In line with this assumption, the willingness of customers to accept mobile payments is strongly influenced by budget constraints, according to Yu (2012) and Luarn and Lin (2005). In addition, Yang (2009) argued that while mobile services cost was considered the most damaging factor in mobile payment adoption.

H7. Price value would affect the intention of Indian customers for SST positively

7) *Trust*

Consumer faith in the accumulation of customer integrity, charity and the capacity that could increase customers' willingness to rely on mobile banking to conduct financial transactions can operate as mobile payments, according to the principle of confidence by Gefen, Karahanna, and Straub. Trust has been studied extensively and shown to be a significant factor in predicting customers' mobile payment attitude and purpose (Hanafizadeh et al., 2014; Luo et al., 2010; Zhou, 2012). Luo et al. (2010), for instance empirically supported confidence to have a major impact not only for the customer's sake but also on standards of results. Zhou (2011) also confirmed faith as a key factor in evaluating the likelihood of clients using mobile banking in his study of the factors that predict customers' initial trust. Hanafizadeh et al. (2014) have also maintained the position of confidence and perceived reputation as major drivers for Indian bank customers to accept mobile payment. Confidence should have a direct impact on the intention of customers to make mobile payments or indirectly influence BI, by facilitating the position of success expectancy, according to the current study and as suggested by Gefen et al. (2003). The following hypotheses are therefore proposed in this study:

H8. Trust would affect the intention of Indian clients to adopt SST positively.

H9. Trust would have a positive effect on the expected performance of SST.

8) *Behavioural intention*

The meaning of actions was shown to have a significant impact on the actual usage and implementation of new ones. technologies in the previous IS / IT literature (Ajzen, 1991; Venkatesh et al., 2003, 2012). The recent study conducted predicts that customers' ability to follow this scheme would in large part predict the future introduction of mobile payments. Many Internet banking related studies, like and many different, have also largely shown this relation. Repeatedly, this research shows that:

H10. The intention to conduct would have a positive effect on the use of SST by Indian clients

9) *Perceived Savings*

The next consideration suggested for the model increase concerns e-wallet users' savings with regard to the form of rewards and their relevance to technology adoption. According

to Urban Airship (2016) survey conducted by UK and American customers, 54 per cent have used mobile wallets. Nearly half of these customers prefer to use their mobile wallets for non-payment functions such as digital cards, vouchers, delivery alerts, boarding passes and ID cards, event tickets, etc. It provides the possibility of engaging with customers, from the marketer's point of view. They must further argue that if deals are not intentionally developed and managed, there remains an opportunity to be unsuccessful in social shopping (Lee, 2017). Many studies suggest that costs and discounts on supply influence the conduct of purchasing both positively and negatively (Darke & Dahl, 2003; Dorzdenko & Jensen, 2005). The factor perceived savings (PSa) is brought in to weigh its impact on the decision to use SST, taking into account the value of price premiums and deals in shaping an attitude to save many. This aspect is, however, not incorporated by previous researchers in the sense of technology acceptance; thus, by incorporating it in the validated UTAUT2 model, the study intends to prove the general predictive power of the resulting system.

H11: There is a positive correlation between the savings of customers and their heavy use of SST.

3. Research Methodology

The study used UTAUT2 to explain the acceptance of technology from the viewpoint of the consumer in Indian banking sector. The UTAUT2 was thus found to be a rational justification on which to suggest the conceptual model used in the study that the search to select an acceptable model covering almost all constructs that decide Indian user intent and the adoption of SST. The key constructs in the UTAUT2 were proposed as direct determinants of the intention of customers to embrace E-wallet: Expected performance (PE), expected commitment (EE), social effect (SI), hedonic drive (HM) and value for the amount (PV) Simon Robinson et al. (2009). In accordance with Venkatesh et al, two variables were established as main predictors of E-wallet adoption behaviour: behavioural intention (BI) and Facilitating conditions (FC). Instead of what Venkatesh et al. (2003) suggested, the role of habit is not considered by the current research model.

A. *Universe and Population*

Sample Size:

From the population of number, we had taken sample size of 300 respondents. The survey instrument was designed using the current three-point scales for SST attitude, ease of use, Usability, and the need for contact. No, there was no appropriate scale available for risk, such as a four-item measure it has been created for this context. Items have been produced in a fashion that would cause people to be asked for Experienced for every SST and people who haven't experienced it yet. It was attempting to use all of the SSTs. Behavioural intentions have been measured using a measure of a single object. Regarding Info of the data provided. All of the previous faith constructs have been assessed using Seven-point Likert scales with 1 endpoint (strongly agreed) and 7 of them (strongly disagreed). The three elements used for the calculation

Semantic Seven-point Attitudes to the SST Differential scale with very good/very poor endpoints, very well. Pleasant/very unpleasant and strongly/strongly displeased. Both of them a total of nine SST attitude questions were asked to the respondents. (The same three semantic differential questions for each of them three of the SSTs). Usage of a single item action purpose measure five-point Likert scale with endpoints of 1 (disagreed) Most likely and 5 (agreed).

4. Analysis of Data

Analyses of route coefficients were performed using AMOS 21.0 to check and examine the Study hypotheses and the degree and pattern of causal interactions between latent constructions two causal pathways have been identified to be a non-significant for (effort and expectancy→behavioral intentions for; facilitating conditions → use behaviour).

Table 1

Fit index	cutoff point	Yielded results
CMIN/DF	≤3.000	2.449
GFI	≥0.90	0.901
AGFI	≥0.80	0.834
NFI	≥0.90	0.931
CFI	≥0.90	0.951
RMSEA	≤0.08	0.038

Table 2

Hypothesized path	Internet banking			Mobile banking			Telebanking		
	Standardized estimate	P-value	VIF	Standardized estimate	P-value	VIF	Standardized estimate	P-value	VIF
FE → BI	0.26	***	2.014	0.61	***	1.799	0.45	***	2.348
EE → BI	0.27	***	2.342	0.24	***	2.007	0.087	.19	1.799
SI → BI	0.21	***	1.620	0.18	***	1.675	0.17	.084	1.720
FC → UB	0.20	0.01	1.671	0.15	0.018	1.427	0.054	.341	1.477
PR → BI	-0.27	***	1.295	-0.12	0.006	1.107	-0.13	.005	1.300
BI → UB	0.43	***	1.671	0.61	***	1.457	0.41	***	1.533

[VIF: Variance inflation factor, ***, P ≤ 0.001]

A. Multi-collinearity test

The VIF values As shown in Table 2, there were between 1 620 and 2,342 (internet banking), 1,107 to 2,007 (mobile banking) and between 1,300 and 2,348 (internet banking); (telebanking). In comparison with the VIF value was considerably lower (2001) proposed cutoff value of 10. (2009). This clearly indicates that the three samples in the current study were not worried with multi-collinearity: Internet, mobile banking, and telecommunications.

B. Test the moderating impact

The main participants to the survey were divided into three categories: participants in internet banking, participants in Mobile banking and participants in telebanking, which assessed the moderating impact of analysis on causal paths of the channel sort. As summarised in table 3, the telebanking structural model (65 percent), followed by the Internet bank model, observes the highest proportion of the variance of behavioural intentions, while the lowest (58 percent) variance of the mobile banking model indicates behavioural intentions.

Table 3

Endogenous construct	Internet banking	Mobile banking	Telebanking
Behavioral Intentions	62%	58%	65%
Use Behavior	33%	30%	43%

As to the variance described by the conduct of usage, the findings were relatively unlike that for behavioural intentions and other endogenous variables. In the case of the telebanking

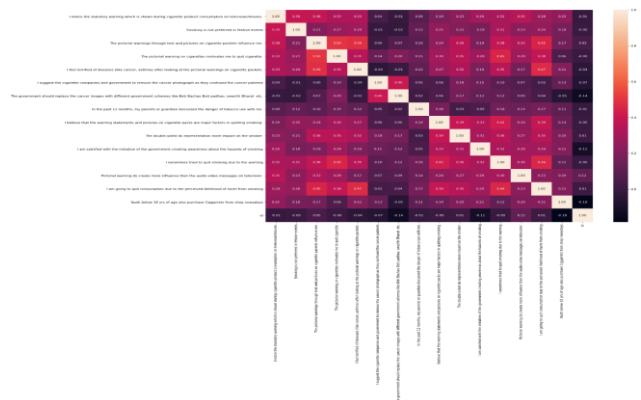
model, the greatest value of R2 reported for use behaviour was noted (43 percent).

Table 4

	χ^2	DF	$\Delta\chi^2$	P-value
Unconstrained base model	2027.841	771		
Constrained base model	2246.178	821	218.34	.000
Constrained paths				
PE → BI	2037.346	733	9.505	.010
EE → BI	2034.189	733	6.348	.050
SI → BI	2028.698	733	0.857	NS
FC → UB	2037.359	733	9.518	.010
BI → UB	2041.842	733	14.001	.001
PR → BI	2033.772	773	5.931	.05

Legend: NS: non-significant

This implies that among the classes, there were major differences. There was a chance, therefore, to find discrepancies at the level of the road. For the models of the three applications, one path coefficient was limited to being equal and the value of μ_2 was then compared to the value of μ_2 on unconstrained base model for a new model with this restricted path (Im et al., 2008; Wang & Shih, 2009). In the impact of behavioural intentions on the real operation of the use of the SST-channels ($\chi^2 = 14.001$, $p < .001$), the most significant variations are found in Table 4. Indeed, behavioural intentions were the best predictor of mobile banking (see Table 2). The key factor in Internet banking predictions ($\beta = 9.518$, $p < .010$) was found to be promoting conditions. In addition, the relationship between performance expectations and behavioral intentions was moderated by the channel sort, where in the case of mobile Banking the greatest effect of success expectations was observed ($\alpha_1 - \beta_2 = 9,505$, $p < 0,010$). With respect to Internet banking, perceived risk also affected behavioral intentions more strongly compared to Mobile banking and telecommunications ($\alpha_1 - \mu_2 = 5.932$, $p < .050$). In the case of Internet banking and mobile banking, the most important factor in predicting compartmental intentions was anticipated effort, but not telebanking ($\cdot 2 = 6.348$ $p < 0.050$). There were, however, no major differences in the impact that social influences could have on behavioural intentions the form of channel.



5. Interpretation and Conclusion

In the current UTAUT expansion report, an analytical analysis has been undertaken and it has been observed that the form of SST channel would moderate the effect on and use of key behavioral intentions. Indian banking customers were very

involved in designing their incentives and benefits schemes to make use of these networks.

Furthermore, the test findings indicate that the effects on behavioral targets of success criteria differed. In terms of Internet banking, however, the relationship was smaller, while in mobile and telecommunication it hit the highest level. This makes mobile banking and telebanking more valuable than online banking for customers. This may be because of mobile banking.

Any SST channel has the capacity to serve its customers seamlessly at a convenient location and time. For example: if customers want to use mobile banking, they only need their smartphones and apps from anywhere (for example while they are home, at work or even out) for access to banking services that is not available.

The findings of the μ_2 differential test further confirm the moderating role of the shape of the medium in the trigger relationship between effort expectation and behavioural intentions. This results in an improvement in the willingness for Indian consumers to use both internet and mobile banking.

If a customer becomes more familiar with a focused technology, he would possibly be unaware that the system is basic or complicated in line with Venkatesh.

Moreover, experienced people are more likely to have faith in the abilities to use new technology (Castañeda, Muñoz-Leiva *et al.*, 2003, 2012). Individuals can often disregard the easiness or difficulties of the goal system if the rewards and utilities of using the system are regarded (Curran & Meuter, 2007; Davis *et al.*, 1989; Davis; Yoon, 2010).

As already stated, telebanking has been considered by respondents to be highly valued and profitable as expressed by the high value extracted for the impact of consumer intentions to use telebanking performance. The criteria for promoting the use of Online banking and mobile banking were found to be a significant determinant of real effort standards. The statistical conclusions, however, disproved the impact of fostering conditions for the telebanking industry.

Consequently, problems pertaining to main facilities, skills, technology and technological assistance may be argued that less significant are the issues by using telebank systems. For online banking and mobile banking, it ensures that the facilities needed for fast and reliable access to financial services are mandatory (e.g., PCs, laptops, 4G networks, Internet networking, WiFi, and secure websites). In the other hand, telebanking requires less infrastructure and less services. The client needs only a smartphone to contact the automated center in order to reach bank facilities.

The findings of previous studies are parallel in the development of allowable criteria for telephone and Internet banking. Whereas Online banking and mobile banking played a significant role in the allowability scheme, telebanking did not.

In particular, when assessing the results of condition facilitation, the knowledge and capability of the customers. (2012). M. The consequences of factors that sustain it also hamper or contribute to Baabdullah *et al.*

Customers with rich skills could escape the challenge of

obtaining the technical support and information support, as proposed by Venkatesh *et al.* (2003) and Venkatesh *et al.* (2012). As previously mentioned, telebanking was adopted by banks for a period of time. Therefore, Indian customers have more telebanking experience than telephone and Internet banking. This avoids the effect of simpler conditions on the use of telebanking by Indian consumers.

Moreover, consumer technology (for example telebanking) is usually attributed to more simplification of architecture, use and necessary facilities; thus, customers may need less technological and operational infrastructure and support than is necessary in the business world. This means that the three samples charged the same social interest in agreeing on the usage of the SST networks.

People appear to have optimistic views and attitudes towards the introduction of new technologies through daily technical experience and increasing knowledge and technological experience (Shih & Fang, 2004; Venkatesh *et al.*, 2003). As mentioned previously with respect to of SSTs in India, India is one of the leading countries in the Middle East in the field.

In mobile banking and telebank respondents were more concerned about potential risk aspects compared to respondents in Internet banking. Indeed, mobile banking and telebanking are more comfortable, secure and more exposed to third-party issues and cybercrime than internet banking (Curran & Meuter, 2005; Lin, 2013; Suoranta & Mattila, 2004).

Furthermore, most cyber financial crimes and problems are caused in India by internet apps providers (Alghad, 2014; Al-Sukkar & Hasan, 2005; The India Times, 2014). For instance, the number of cyber-crimes registered in India has increased significantly according to a study cited by Faqir (2013; there were 1,103 in 2011).

Mobile banking was accompanied by Internet banking, while telebanking was most vulnerable to behavioral intentions. Indeed, Indian banking customers are called mobile banking the most innovative and new banking technology available. Mobile banking is seen as novel and creative in contrast to other sites. In comparison, the participants saw mobile banking as more beneficial and less risky.

6. Conclusion

Mobile banking and the technology is an attractive on an area of interest to be studied and investigated with the main problems of applying this technology in particular in mind. This study found it appropriate to examine key factors which could affect the goal and the acceptance of mobile banking by Indian customers, taking account of Indian customers' lower mobile banking levels. This is in addition to the fact that many studies have addressed the related issues with mobile banking in India. In addition, it is appropriate to choose the theoretical basis to capture the most relevant aspects of Indian banking consumer adoption of mobile banking. A new variant of UTUAT2 was then chosen from Venkatesh *et al.* (2012) to suggest a theoretical model for this analysis. This has been extended by introducing trust as an external consideration and has been commonly referred to viability of the mathematical model by taking into consideration some 64% of the variance in the

mobile banking intended by Indian customers. Effective behavioral predatory interventions have all been approved, including anticipation of success, engagement, hedonic rewards, price values and confidence. Both behavioural and adjustable variables have helped the key factor to forecast the eventual introduction of mobile banking.

7. Limitations and Future Research Directions

While this report addresses a decent exertion nearby selection and utilization of portable banking, there are less restrictions. For instance, the information acquired in the current investigation utilizing a comfort test of Indian financial customers in just two Indian urban areas (Amman and Al-Balqa) may unfavourably influence the speculation of results in other metropolitan regions. The review profile additionally showed that the more noteworthy portion of respondents was youthful, medium-sized, accomplished and had adequate PC and web skill in the current example. These further difficulties whether the outcomes are applicable to different portions of the current populace with different qualities (for example age, pay, schooling level, sex, and innovation experience). The request included only one web based financial channel (for example Portable banking). This could lessen the appropriateness to different kinds of electronic channels of the consequences of the current investigation in different fields. In the current examination, the discoveries were more founded on cross-sectional information and in this way suggested conversation starters about their drawn out use. The clarification for this issue might be that the client trusts and view of such innovations will change all the more regularly over the long haul (Agarwal and Karahanna, 2000; Lee *et al.*, 2003). Moreover, the effect of public culture on Indian clients' plan and utilization of versatile banking has not been estimated in the current audit. Basically, analyzing impacts identified with a male centric culture, including manliness, gentility, community, independence, vulnerability evasion and force distance, could be more valuable to see more about how buyers express their purpose, conduct and convictions with such progressive imaginative construction. Given that the current examination result depends on cross-sectional information, a longitudinal report may offer extra reasons with respect to this subject and the level of soundness or improvement in the effect of the proposed factors over the long run. Moreover, as this examination accumulated the essential information from just two Indian urban areas (Amman and Al-Balqa,'), ensuing examinations in India ought to incorporate different urban communities and cover the entire geographical inclusion in both metropolitan and rustic zones. In a deliberate cycle of proposing and approving an applied model for the ebb and flow research, the investigation opens the likelihood to re-apply and retest models to clarify the objective and conduct of clients in different circumstances against various advancements. Since the new innovation is a SST (for example portable banking) in India and its entrance rate stays lazy, Indian clients have not yet shaped an ongoing pattern against the innovation. Nonetheless, future investigations will, in the long haul, investigate the situation of propensity for the two purposes and individual conduct until Indians are

acclimated with taking care of web based financial channels and molding their ordinary conduct.

References

- [1] Ali, A., & Bisht, L. S. (2018). Customers' satisfaction in public and private sector banks in India: A comparative study. *J Fin Mark*. 2018; 2 (3): 27-33. *J Fin Mark* 2018 Volume 2 Issue 3, 28.
- [2] Chaudhary, K., & Sharma, M. (2011). Performance of Indian public sector banks and private sector banks: A comparative study. *International journal of innovation, management and technology*, 2(3), 249.
- [3] Kaushik, A. K., & Rahman, Z. (2015). Innovation adoption across self-service banking technologies in India. *International Journal of Bank Marketing*.
- [4] Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behaviour and Human Decision Processes*, 50(2), 179–211.
- [5] Alalwan, A., Dwivedi, Y. K., & Williams, M. D. (2014). Examining factors affecting customer intention and adoption of Internet banking in India. In *Proceedings of United Kingdom academy of information systems UKAIS conference*.
- [6] Alalwan, A. A., Rana, N. P., Dwivedi, Y. K., Lal, B., & Williams, M. D. (2015). Adoption of mobile banking in India: Exploring demographic differences on customers' perceptions. In *Open and big data management and innovation*. pp. 13–23.
- [7] Alalwan, A. A., Dwivedi, Y. K., Rana, N. P., Lal, B., & Williams, M. D. (2015). Consumer adoption of Internet banking in India: Examining the role of hedonic motivation, habit, self-efficacy and trust. *Journal of Financial Services Marketing*, 20(2), 145–157.
- [8] Alalwan, A. A., Dwivedi, Y., Rana, N. P., & Williams, M. D. (2016). Consumer adoption of mobile banking in India: Examining the role of usefulness, ease of use, perceived risk and self-efficacy. *Journal of Enterprise Information Management*, 29(1).
- [9] Alalwan, A. A., Dwivedi, Y. K., & Williams, M. D. (2016). Customers' intention and adoption of telebanking in India. *Information Systems Management*, 33(2), 154–178.
- [10] Alalwan, A. A., Dwivedi, Y. K., Rana, N. P., & Simintiras, A. C. (2016). Indian consumers' adoption of telebanking: Influence of perceived usefulness, trust and self-efficacy. *International Journal of Bank Marketing*, 34(5).
- [11] Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modelling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411–423.
- [12] Awwad, M. S., & Ghadi, M. Y. (2010). Investigating of factors influencing the intention to adopt mobile banking services in India. *Dirasat: Administrative Sciences*, 37(2), 545–556.
- [13] Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74–94.
- [14] Brislin, R. (1976). Comparative research methodology: Cross-cultural studies. *International Journal of Psychology*, 11(3), 215–229.
- [15] Brown, S. A., & Venkatesh, V. (2005). Model of adoption of technology in the household: A baseline model test and extension incorporating household life cycle. *MIS Quarterly*, 29(4), 399–426.
- [16] Brown, I., Cajee, Z., Davies, D., & Stroebel, S. (2003). Cell phone banking: Predictors of adoption in South Africa—An exploratory study. *International Journal of Information Management*, 23, 381–394.
- [17] BuddeComm. (2014). India – Telecoms, mobile broadband and forecasts. Available from <http://www.budde.com.au/Research/India-Telecoms-Mobile-Broadband-and-Forecasts.html?r=51>. Accessed: 08 February 2015.
- [18] Byrne, B. (2010). *Structural equation modeling with AMOS: Basic concepts, applications and programming* (6th ed.). New York, USA: Taylor & Francis Group.
- [19] Chen, H., Papazafeiropoulou, A., Chen, T. K., Duan, Y., & Liu, H. W. (2014). Exploring the commercial value of social networks: Enhancing consumers' brand experience through Facebook pages. *Journal of Enterprise Information Management*, 27(5), 576–598.
- [20] Chiu, Y., Fang, S., & Tseng, C. (2010). Early versus potential adopters: Exploring the antecedents of use intention in the context of retail service innovations. *International Journal of Retail and Distribution Management*, 38(6), 443–459.
- [21] Compete Pulse. (2013). Mobile banking today: Highlights from #MCS2013. Available from: <https://blog.compete.com/2013/06/12/mobile-banking-today-highlights-from-mcs2013/>. Accessed: 15 February 2015.

- [22] Constantiou, I. D., Papazafeiropoulou, A., & Vendelo, M. T. (2009). Does culture affect the adoption of advanced mobile services? A comparative study of young adults' perceptions in Denmark and the UK. *ACM SIGMIS Database*, 40(4), 132–147.
- [23] Cruz, P., Neto, L. B. F., Munoz-Gallego, P., & Laukkanen, T. (2010). Mobile banking rollout in emerging markets: Evidence from Brazil. *International Journal of Bank Marketing*, 28(5), 342–371.
- [24] 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.
- [25] Dodds, W. B., Monroe, K. B., & Grewal, D. (1991). Effects of price, brand, and store information on buyers. *Journal of Marketing Research*, 28(3), 307–319.
- [26] Dwivedi, Y. K., & Irani, Z. (2009). Understanding the adopters and non-adopters of broadband. *Communications of the ACM*, 52(1), 122–125.
- [27] Dwivedi, Y. K., & Lal, B. (2007). Socio-economic determinants of broadband adoption. *Industrial Management & Data Systems*, 107(5), 654–671.
- [28] Dwivedi, Y. K., Kapoor, K. K., Williams, M. D., & Williams, J. (2013). RFID systems in libraries: An empirical examination of factors affecting system use and user satisfaction. *International Journal of Information Management*, 33(2), 367–377.
- [29] Eriksson, K., Kerem, K., & Nilsson, D. (2005). Customer acceptance of Internet banking in Estonia. *International Journal of Bank Marketing*, 23(2), 200–216.
- [30] Gefen, D. (2000). E-commerce: The role of familiarity and trust. *Omega*, 28(6), 725–737.
- [31] Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in online shopping: An integrated model. *MIS Quarterly*, 27(1), 51–90.
- [32] Gerrard, P., & Cunningham, J. B. (2003). Diffusion of Internet banking among Singapore consumers. *International of Bank Marketing*, 21(1), 16–29.
- [33] Gerrard, P., Cunningham, J. B., & Devlin, J. F. (2006). Why consumers are not using Internet banking: A qualitative study. *Journal of Services Marketing*, 20(3), 160–168.
- [34] Gu, J. C., Lee, S. C., & Suh, Y. H. (2009). Determinants of behavioral intention to mobile banking. *Expert Systems with Applications*, 36(9), 11605–11616.
- [35] Hair, J. F., Jr., Anderson, R. E., Tatham, R. L., & Black, W. C. (1995). *Multivariate data analysis with readings*. Englewood Cliffs, NJ: Prentice-Hall.
- [36] Hair, J. F., Jr., Black, W., Babin, B., Anderson, R. E., & Tatham, R. (2006). *Multivariate data analysis* (6th ed.). New Jersey: Prentice Hall.
- [37] Hair, J. F., Jr., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis: A global perspective* (7th ed.). Pearson Education International.
- [38] Hanafizadeh, P., Behboudi, M., Koshksaray, A. A., & Tabar, M. J. S. (2014). Mobile-banking adoption by Iranian bank clients. *Telematics and Informatics*, 31(1), 62–78.
- [39] Harman, H. H. (1976). *Modern factor analysis* (3rd Ed.). Chicago, IL: University of Chicago Press.
- [40] Ho, S., & Ko, Y. (2008). Effect of self-service technology on customer value and customer readiness: The case study of Internet banking. *Internet Research*, 18(4), 427–446.
- [41] Holmes-Smith, P., Coote, L., & Cunningham, E. (2006). *Structural equation modelling: From the fundamentals to advanced topics*. Melbourne: School Research, Evaluation and Measurement Services.
- [42] Hossain, M. A., & Dwivedi, Y. K. (2014). What improves citizens' privacy perceptions toward RFID technology? A cross-country investigation using mixed method approach. *International Journal of Information Management*, 34(6), 711–719.
- [43] Jaruwachirathanakul, B., & Fink, D. (2005). Internet banking adoption strategies for a developing country: The case of Thailand. *Internet Research*, 15(3), 295–311.
- [44] Jeong, B. K., & Yoon, T. E. (2013). An empirical investigation on consumer acceptance of mobile banking services. *Business & Management Research*, 2(1), 31–40.
- [45] KPMG International. (2009). Consumers taking charge, consumers and convergence III survey report. Available at: www.kpmg.com/en/IssuesAndInsights/ArticlesPublications/Documents/Consumers-and-Convergence-III.pdf.
- [46] Khraim, H. S., Shoubaki, Y. E., & Khraim, A. S. (2011). Factors affecting Indian consumers' adoption of mobile banking services. *International Journal of Business and Social Science*, 2(20), 96–105.
- [47] Kim, G., Shin, B., & Lee, H. G. (2009). Understanding dynamics between initial trust and usage intentions of mobile banking. *Information Systems Journal*, 19(3), 283–311.
- [48] Kline, R. B. (2005). *Principles and practice of structural equation modelling*. New York: The Guilford Press.
- [49] Kline, R. B. (2011). *Principles and practice of structural equation modelling*. New York: The Guilford Press.
- [50] Laukkanen, T. (2007a). Customer preferred channel attributes in multi-channel electronic banking. *International Journal of Retail & Distribution Management*, 35(5), 393–412.
- [51] Laukkanen, T. (2007b). Internet vs Mobile banking: comparing customer value perceptions. *Business Process Management Journal*, 13(6), 788–797.
- [52] Laukkanen, T., & Cruz, P. (2009). Comparing consumer resistance to Mobile banking in Finland and Portugal. *E-Business and Telecommunications*, 48, 89–98.
- [53] Laukkanen, T., Sinkkonen, S., Kivijärvi, M., & Laukkanen, P. (2007). Innovation resistance among mature consumers. *The Journal of Consumer Marketing*, 24(7), 419–427.
- [54] Laukkanen, T., Sinkkonen, S., & Laukkanen, P. (2009). Communication strategies to overcome functional and psychological resistance to Internet banking. *International Journal of Information Management*, 29(2), 111–118.
- [55] Lee, M., McGoldrick, P. J., Keeling, K. A., & Doherty, J. (2003). Using ZMET to explore barriers to the adoption of 3G mobile banking services. *International Journal of Retail and Distribution Management*, 31(6), 340–348.
- [56] Lee, E., Kwon, K., & Schumann, D. (2005). Segmenting the non-adopter category in the diffusion of Internet banking. *International Journal of Bank Marketing*, 23(5), 414–437.
- [57] Lee, K. S., Lee, H. S., & Kim, S. Y. (2007). Factors influencing the adoption behavior of mobile banking: a South Korean perspective. *Journal of Internet Banking and Commerce*, 12(2), 1–9.
- [58] Lee, H., Harindranath, G., Oh, S., & Kim, D. J. (2015). Provision of mobile banking services from an actor-network perspective: Implications for convergence and standardization. *Technological Forecasting and Social Change*, 90, 551–561.
- [59] Lin, H. F. (2011). An empirical investigation of mobile banking adoption: The effect of innovation attributes and knowledge-based trust. *International Journal of Information Management*, 31(3), 252–260.
- [60] Lin, H. F. (2013). Determining the relative importance of mobile banking quality factors. *Computer Standards & Interfaces*, 35(2), 195–204.
- [61] Luarn, P., & Lin, H. H. (2005). Toward an understanding of the behavioral intention to use Mobile banking. *Computers in Human Behavior*, 21(6), 873–891.
- [62] Luo, X., Li, H., Zhang, J., & Shim, J. P. (2010). Examining multi-dimensional trust and multifaceted risk in initial acceptance of emerging technologies: An empirical study of Mobile banking services. *Decision Support Systems*, 49(2), 222–234.
- [63] Martins, G., Oliveira, T., & Popovic, 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.
- [64] Migdadi, Y. K. A. (2012). The developing economies' banks branches operational strategy in the era of e-banking: The case of India. *Journal of Emerging Technologies in Web Intelligence*, 4(2), 189–197.
- [65] Nunnally, J. C. (1978). *Psychometric theory*. New York, NY: McGraw-Hill.
- [66] Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903.
- [67] Püschel, J., Mazzon, J. A., & Hernandez, J. M. C. (2010). Mobile banking: Proposition of an integrated adoption intention framework. *International Journal of Bank Marketing*, 28(5), 389–409.
- [68] Purwanegara, M., Apriningsih, A., & Andika, F. (2014). Snapshot on Indonesia regulations in Mobile Internet banking users' attitudes. *Procedia-Social and Behavioral Sciences*, 115, 147–155.
- [69] Riffai, M. M. M. A., Grant, K., & Edgar, D. (2012). Big TAM in Oman: Exploring the promise of on-line banking, its adoption by customers and the challenges of banking in Oman. *International Journal of Information Management*, 32(3), 239–250.
- [70] Riquelme, H. E., & Rios, R. E. (2010). The moderating effect of gender in the adoption of Mobile banking. *International Journal of Bank Marketing*, 28(5), 328–341.

- [71] Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). New York, NY: Free Press.
- [72] Sathye, M. (1999). Adoption of Internet banking by Australian consumers: An empirical investigation. *International Journal of Bank Marketing*, 17(7), 324–334.
- [73] Simintiras, A. C., Dwivedi, Y. K., & Rana, N. P. (2014). Can marketing strategies enhance the adoption of electronic government initiatives? *International Journal of Electronic Government Research (IJEGR)*, 10(2), 1–7.
- [74] Straub, D., Boudreau, M. C., & Gefen, D. (2004). Validation guidelines for IS positivist research. *The Communications of the Association for Information Systems*, 13(1), 63.
- [75] The Gulf Today. (2012). India's internet users stand at 3.535 million: August 19, 2012. Available from: <http://gulftoday.ae/portal/cf77a112-4874-4abe-bba8-4265dc1aa8c9.aspx>. Accessed: 08 January 2014.
- [76] The India Times. (2013). Mobile phone penetration projected to reach 200%. Available from: <http://indiatimes.com/mobile-phone-penetration-projected-to-reach-200>
- [77] van der Heijden, H. (2004). User acceptance of hedonic information systems. *MIS Quarterly*, 28(4), 695–704.
- [78] Venkatesh, V. (1999). Creation of favorable user perceptions: exploring the role of intrinsic motivation. *MIS Quarterly*, 23(3), 239–260.
- [79] Venkatesh, V., Morris, M., Davis, G., & Davis, F. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425–478.
- [80] Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly*, 36(1), 157–178.
- [81] Weerakkody, V., El-Haddadeh, R., Al-Sobhi, F., Shareef, M. A., & Dwivedi, Y. K. (2013). Examining the influence of intermediaries in facilitating e-government adoption: An empirical investigation. *International Journal of Information Management*, 33(5), 716–725.
- [82] Wessels, L., & Drennan, J. (2010). An investigation of consumer acceptance of M-banking. *International Journal of Bank Marketing*, 28(7), 547–568.
- [83] West, S. G., Finch, J. F., & Curran, P. J. (1995). Structural equation models with non-normal variables: problems and remedies. In R. H. Hoyle (Ed.), *Structural equation modelling: Concepts, issues, and applications* (pp. 56–75). CA: Sage Publications Ltd: Thousand Oaks.
- [84] Yang, A. S. (2009). Exploring adoption difficulties in mobile banking services. *Canadian Journal of Administrative Sciences*, 26(2), 136–149.
- [85] Yu, C. S. (2012). Factors affecting individuals to adopt Mobile banking: Empirical evidence from the UTAUT model. *Journal of Electronic Commerce Research*, 13(2), 104–121.