Consumers' Intention to Adopt Internet Banking : An Indian Perspective

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Abstract

Purpose: The purpose of this paper was to propose an Internet banking (IB) adoption model for emerging markets based on an Indian framework. It explored the role of accessibility, corporate image, demographic characteristics, perceived ease of use, perceived usefulness, self-efficacy, trust, and website quality in framing consumers' intention to use IB.

Design/Methodology/Approach: Based on existing literature, 31 predictor variables were tested for the study. Cronbach's alpha test and factor loading estimates were used to assess the construct reliability and convergent validity of the scale. The data were collected through a self-administered questionnaire from a convenient sample of 250 retail bank customers. Exploratory factor analysis and multiple regression techniques were applied to the data obtained.

Findings: Of the 31 predictor variables tested, 25 were found to be significant for the study. Additionally, out of the seven factors obtained, three of them were found to significantly impact IB-adoption in India. These were Perceived Usefulness, Perceived Ease of Use and Trust, and Perceived Quality. The study also indicated low adoption of Internet banking in India.

Practical Implications: The results affirmed the applicability of the technology acceptance model (Davis, 1989). The three significant factors in the study can help in formulating customer engagement strategies to accept and use IB services in India. The utmost significant inference for the Indian banking industry is not only to provide hassle-free IB services, but to also build a relationship with its customers based on trust and provide a fast and easy to access website portal.

Originality/Value: The model formulated established the level of acceptance for IB in India, which is a valuable contribution to the adoption theories across the globe. The extended model can be further tested to segment retail bank customers of India on the basis of their intention to use Internet banking.

Keywords: internet banking, technology acceptance model (TAM), consumer behavior, trust and website quality

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Internet banking (IB) can be defined as the automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels. In simple terms, Internet banking involves consumers to access their bank and account using the Internet to undertake banking transactions (Sathye, 1999). It is a method by which customers transact electronically via the Internet. The Internet or online banking is the most frequently used technology for e-banking as explained by Abbad (2013).

The key driver for delivering services online is to offer 24×7 accessibility and convenience to customers. Banerjee, Dutta, and Dasgupta, (2010) considered the Internet as an attractive mass media platform to reach out to

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the customers. Internet banking provides instant banking solutions to its customers. It is fast, simple, and secure, allowing access to an extensive range of transactions such as utility bill payments, fund transfers, viewing estatements, etc. Its users can bank from the comfort of their office or home, from India or abroad, at any time suitable for them.

Adoption here refers to the phase in which a technology is selected for use by any individual or organization. Internet banking (IB) benefits both banks and its customers. Banks introduced the IB services to reduce costs and increase productivity. It enhances the efficiency of their operational services (Azouzi, 2009). For the customers, IB presents a fast and convenient channel to conduct banking transactions that fit with customers' changing busy lifestyles (Rambocas & Arjoon 2012), making it an important revenue builder and competitive differentiator for banks.

India is one of the fastest growing population of Internet users, and it is expected to reach half a billion by the year 2018 (Shah, Jain, & Bajpai, 2015). It is also forecasted that contribution of financial e - commerce services to GDP is expected to rise by 19% in the period from 2013 - 2018 (Shah, Jain, & Bajpai, 2015). As per an IDC report, it is anticipated that the cost to the bank per electronic transaction is approximately one-eighth of that involved in traditional banking methods. Hence, the challenge for all banks is to expand the online banking user base and gradually increase the variety of services that the customers use. It is also reported that India is a huge potential market and is rapidly catching up with its Asian counterparts ("Online banking users in India now close to a million, Says IDC," 2002).

Bissola (2003) outlined the projected evolution of online banking activities as informational, transactional, and relationship building services. Informational services are those where customers use IB for knowing account status, statement of transactions, and new interest rate information, etc. Transactional services are those where customers transfer funds, trade, pay bills, etc., and relationship building services are those where customers take real-time advice, do one to one interactions, use intelligent alert services, automated billing payment services, personalized reporting systems, etc. As the customers move from informational to relationship building level of service, banks would be able to provide more value to its customers.

Sullivan and Wang (2013) suggested a wider aspect of the adoption theory, which states that a major driving force in the IB-adoption is the value it offers to its stakeholders. It is stated that the Internet has made banks easily approachable to consumers, even serving over long distances. Moreover, it is less costly for banks to conduct low value-adding transactions, for example, bills payment, accounts transfer, and balance inquiries. By implementing these services, the brick and mortar banking model could focus on specialized and high value-adding transactions like investment banking and personal trust services, etc.

The Indian banking industry has been taking multifold initiatives of digital transformation to promote IB. Banks are offering best in class online and mobile banking features like personalization, bank wide customer relationship views, and cross channel integration. However, there exists a low customer migration to these alternative channels as compared to branch banking (Ernst & Young, 2014). Thus, there is a need to explore the factors which promote the adoption of IB services. This issue is crucial since it is connected to the growth of the banking industry. These factors will also help to formulate the IB strategies and policies for future (Sullivan & Wang, 2013).

The present study aims to explore extensive literature on Internet banking and endeavors to make valuable contribution to TAM model and theory of adoption literature. The focus of the research is to evaluate the determinants of consumers' intention to adopt IB in India using eight constructs mined from literature.

This article is structured as follows: the next section draws the theoretical foundation, linking it to the current purpose of the study, by conducting a literature review of key constructs used in the study. After intending the research framework, the hypotheses are developed, integrating the constructs with their relationship to use IB, followed by analysis and results. The article is concluded with its implications and limitations of the study & the way forward.

Literature Review

The Technology Acceptance Model (TAM): Majority of the adoption theories apply the TAM model for explaining the determinants of individual acceptance behaviour of information systems. Davis (1989) defined intention as a function of attitude and two concepts: perceived usefulness (PU) and perceived ease of use (PEOU). PU is defined as the degree to which a person believes that using a particular system would enhance his or her job performance (Davis, 1989). Perceived ease of use is defined as the degree to which a person believes that using a particular system would be free of effort (Davis, 1989).

The main limitation of TAM is that it is unable to explain the influence of other variables in predicting behaviour (Gounaris & Koritos, 2008). There have been many studies which have introduced additional variables to improve the TAM framework (Agarwal & Prasad, 1999; Alsajjan & Dennis, 2006; Moon & Kim, 2001; Moore & Benbasat, 1991; Venkatesh & Davis, 1996; Venkatesh & Morris, 2000). Hence, through the study of literature, the study proposes additional variables identified in context of Internet banking. The additional variables in the proposed research of this study are: accessibility, corporate image, demographic characteristics, self - efficacy, trust, and website quality.

Table 1. Summary of Literature Using Additional Variables in the TAM Framework

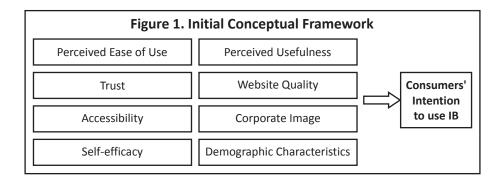
Additional Variables	Studies Incorporating these Variables
Accessibility	Carvajal & Torres (2015); Durkin (2004); Harrison, Onyia, & Tagg (2014); Hernandez & Mazzon (2007); Kuisma, Laukkanen, & Hiltunen, (2007); Machogu & Okiko (2015); Poon (2008); Polasik & Wisniewski (2009)
Corporate Image	Aaker & Keller (1990); Erdem & Swait (2004); Lii (2009); Salehnia, Saki, Eshaghi, & Salehnia (2014); Zins (2001)
Demographics	Carvajal & Torres (2015); Floh & Treiblmaier (2006); Harrison et al. (2014); Machogu & Okiko, (2015)
Self - Efficacy	Aldás-Manzano, Lassala - Navarré, Ruiz - Mafé, & Sanz-Blas (2009a); Floh & Treiblmaier (2006); Hernandez & Mazzon (2007); Igbaria & Iivari (1995); Lassar, Manolis, & Lassar (2005); Lichtenstein & Williamson (2006); Moore & Benbasat (1991); Tan & Teo (2000); Thatcher & Perrewe (2002); Thornton & White (2001)
Website Quality	Gerrard & Cunningham (2003); Ho, Chew, & Khan (2013); Ibrahim, Joseph, & Ibeh (2006); Lichtenstein & Williamson (2006); Patricio, Fisk, Falcao, & Cunha (2003); Shih & Fang (2004); Siu & Mou (2005)
Trust	Alsajjan & Dennis (2006) ; Carvajal & Torres, (2015) ; Lewicki & Bunker (1996) ; Mukherjee & Nath (2003) ; Sathye (1999) ; Tyler & Degoey (1996) ; Yiu, Grant, & Edgar (2007) ; Yousafzai, Pallister, & Foxall (2009)

The studies cited in Table 1 signify that there are majorly eight factors which impact the decision of adoption of technology by consumers: accessibility, corporate image, demographic characteristics, perceived ease of use, perceived usefulness, self-efficacy, trust, and website quality.

- (i) Accessibility: Accessibility is the ability to access the Internet and a device or platform to use the Internet at a given time. It was identified that people who have regular or permanent access to a personal computer (PC) and the Internet at work or home are more likely to register for IB than those who do not (Harrison, et al., 2014). A research study based in Colombia stated that 93% of the respondents had access and used IB for debit transactions more than credit transactions and were well equipped with the know-how of using desktops than mobile phones and tablets (Carvajal & Torres, 2015); whereas, Rwandan commercial banks' study signified that accessibility/ease of access (EA) had a relatively lower influence on customer satisfaction (Machogu & Okiko, 2015).
- (ii) Corporate Image: Corporate image can be seen as customer's perception of the company created by continuous

experience (Zins, 2001). Lii (2009) and Panda, Swar, and Mukerjee (2014) found that corporate image or reputation significantly influenced trust for any brand. Moreover, existing brands is a way to provide prospective customers with references to rely on the quality of an innovation (Aaker & Keller, 1990; Erdem & Swait, 2004). Additionally, there exists an inverse relationship signifying consumer's experiences and service quality represents overall opinion about the organization and has a significant effect on the corporate image (Salehnia et al., 2014).

- (iii) Demographic Characteristics: Demographics include particular conditions of a user considering various aspects of age, gender, marital status, educational level, the name of the company, employee number, etc. (Carvajal & Torres, 2015). Burke (2002) revealed that consumers with higher educational attainments like graduate or post-graduate degree were more comfortable in using technology. Amin and Amin (2010) also stated the difference in the use of online shopping with respect to gender. On the contrary, a current Nigerian study pointed out that there was no direct influence of education on adoption of technology. Moreover, a thorough study on seven mediating variables: age, gender, income, education, marital status, the area of residence, and occupation revealed only three to be significant namely, income, educational attainment, and area of residence in a research conducted in Scotland (Harrison et al., 2014). These demographic variables showed a mediating role in predictor variables, which affected attitude and intention.
- (iv) Self Efficacy: Self efficacy implies competence of users to use Internet banking (Carvajal & Torres, 2015). Previous research studies implied that the stronger are the self-efficacy beliefs of a person, it is more likely to try to achieve the required outcome (Gerrard & Cunningham, 2003; Igbaria & Iivari, 1995; Lassar et al., 2005; McFarland & Hamilton, 2004; Polatoglu & Ekin, 2001). An Indian study on young consumers revealed that there was a positive effect of self-efficacy on consumers' intention to use the IB system (Bashir & Madhavaiah, 2014).
- (v) Website Quality: In the IB system or any E service industry, the website is a tangible component, which is also an important touch point for effective service delivery. Literature explains website quality of banks as quality of display pages, quick loading of pages, and no delay in website's response as components of website quality (Raitani & Vyas, 2014). Lii (2009) found that there was a strong effect of website quality on e-satisfaction and e-trust.
- (vi) Perceived Usefulness: Perceived usefulness is a belief that consumers are more likely to use IB when they perceive that usage of IB is valuable (Abbad, 2013). This follows from the definition of the word useful: capable of being used advantageously (Davis, 1989). Several studies have signified a direct influence of perceived usefulness on technology adoption (Agarwal & Prasad, 1999; Alsajjan & Dennis, 2006; Davis, 1989; Eriksson, Kerem, & Nilsson, 2005; Ho et al., 2013; Moon & Kim, 2001; Moore & Benbasat, 1991; Venkatesh, 1999; Venkatesh & Davis, 1996; Venkatesh & Morris, 2000; Yiu et al., 2007).
- (vii) Perceived Ease of Use (PEOU): Perceived ease of use is defined as the degree to which a consumer believes that no effort will be required to use the system (both physical and mental effort), and how easy it is to learn to use the system (Davis, 1989). In a study based in Estonia, perceived ease of use of Internet banking did not directly increase the use of Internet banking, but it did lead to greater perceived usefulness, which then increased the use of the same (Aldás Manzano, Lassala-Navarré, Ruiz-Mafé, & Sanz-Blas, 2009a). On the contrary, in a research based in Jordan, perceived ease of use was highly significant, and also acted as a direct determinant of the behavioral intention of the customers (Rawashdeh, 2014). In context to Internet banking literature, PEOU has been well documented and confirmed to be playing an important role in determining adoption of Internet banking (Alsajjan & Dennis, 2006; Bashir & Madhavaiah, 2014; Yiu et al., 2007).



(viii) Trust: Trust has been identified as the key to e-commerce because it is crucial wherever uncertainty and interdependence exists (Yousafzai, Pallister, & Foxall, 2009). Its findings show that trust and perceived risk directly affect intention of consumers, and trust is a multidimensional construct with three factors: perceived trustworthiness, perceived security, and perceived privacy.

Innovation adoption was seen as a result of customer's confidence towards the innovation. Carvajal and Torres (2015) suggested that trust was significantly and closely related to the perception of security, risk, and privacy of information generated by using E- banking in Colombia. Many researchers pointed out the increased concern for trust contributing majorly to IB acceptance (Alsajjan & Dennis, 2006; Aldás-Manzano, Lassala-Navarré, Ruiz-Mafé, & Sanz-Blas, 2009b; Lewicki & Bunker, 1996; Mukherjee & Nath, 2003; Sathye, 1999; Tyler & Degoey, 1996; Yiu et al., 2007).

There has been ample research about Internet banking service quality, satisfaction, and IB - adoption in developed economies. Moreover, banks have low returns from investments in advanced technologies because customers fail to accept or fully utilize the technological capabilities. In India as well, sufficient research has been done, but there is a large population which still favors traditional forms of banking via bank branches. Hence, it becomes imperative to study the factors which influence the use of Internet banking by Indian customers as stated in the Figure 1.

Research Design and Methodology

(1) Measures of Construct: The items selected for the measurement explain the concept of adoption. All the 31 statements used in the study were adapted from previously validated innovation adoption studies and modified appropriately for IB-adoption to ensure content validity. The constructs have been adapted from existing studies of developed nations to suit the Indian demographics. The scale developed is then tested and validated. The survey instrument considered eight factors, and each factor is measured with multiple items.

Out of 31 items, 25 were seen relevant for understanding the attitude and intentions of consumers towards IB adoption. Hence, the final result was obtained by elimination of six insignificant items. A 5-point Likert scale was used to measure the respondents' agreement or disagreement with labels ranging from *strongly agree (SA)* to *strongly disagree (SD)*.

(2) Data Collection Procedure: A structured questionnaire was mailed to 250 bank account holders in India to collect the data. The data collection procedure was conducted in October 2016. No categorization was made on the basis of users or non-users of IB to know potential prospects of Internet banking. Google forms application was used to prepare the questionnaire, and it was mailed to the prospective respondents. Hence, the study is not limited to any geographical boundary or any particular states of India. Convenience sampling method was adopted for this study, which involved the selection of a sample from that part of the study population which was easily accessible

to us (Syed, 2012). Out of 250 emails sent, 197 responded. Hence, the response rate was 78.8%, which is acceptable in the case of convenience sampling. Out of 197 responses received, 172 were found fit for analysis.

Analysis and Results

(1) Demographic Characteristics of the Respondents: The characteristic of our study sample was defined as individual retail customers of India aged between 15 to 60 years. A majority of the respondents (76%) were aged between 15 to 34 years, 20% were aged between 35 to 54 years. Out of 172 respondents, the majority of the respondents (56.4%) were postgraduates, another 21% were graduates, and the remaining were undergraduates. By profession, 52% belonged to academia; 10% belonged to IT, consulting, and manufacturing; 10% were from retail & banking; 7% were from the marketing industry, and the rest were either students or belonged to other industries. The frequency of usage of IB services was also classified; 21% used IB for all banking transactions; the majority (37%) responded to use it for most of the transactions, 14% used it for small amount of transactions, 8% for less risk involving transactions, 14% used it rarely, and the rest had never used IB services. The respondents' demographic profile is also briefed in the Table 2.

Table 2. Summary of Respondents' Demographic Profile

S.No.	Demographic Information	Items	%
1.	Age	15-24	37.6
		25-34	38.2
		35-44	13.9
		45-54	7.9
		55-60	2.2
2.	Educational Qualification	X Pass	0.6
		XII Pass	21.8
		Graduate	21.2
		Post Graduate	56.4
3.	Working with (Industry)	Academia	54.5
		Banking	7.3
		Retail	1.2
		IT	4.2
		Manufacturing	3.6
		Research	1.8
		Marketing & Advertising	7.3
		Others	20
4.	How often do you use	For all banking transactions.	21.8
	Internet Banking services ?	For most of the transactions.	37.6
		For small amount of transactions.	13.9
		For less risk involving transactions.	8.5
		Rarely use Internet banking services.	14.5
		Never used Internet banking services.	3.6

Table 3. Factor Analysis Results

Factors	Variable Labels	Variable Variance%	Factor Loadings	Variance %
F1-				
Perceived Usefulness	V14	Balance enquiries	.741	12.841
(PU)	V3	IB easy and convenient	.686	
	V23	Gen X more comfortable	.680	
	V22	Less time-consuming	.680	
	V11	Used for paying bills	.629	
	V29	More advantageous than traditional banking	.443	
F2 - Perceived Ease of Use and Trust				
(PEUT)				
	V17	Safe transmission of personal info	.752	12.099
	V16	Caution = Success	.722	
	V18	No chances of error	.722	
	V20	Multiple checks of security	.649	
	V19	Easily accessible	.570	
	V21	Technical skills	.554	
	V12	Transaction alerts of security reasons	.429	
F3 - Perceived Quality	V7	Website provides complete information	.813	11.462
	V6	Perceived reputation	.786	
	V8	No delay in transactions	.651	
	V4	Fulfilment of brand communications	.421	
F4-Demographics Characteristics (D)	V29	Females more comfortable	.797	7.863
	V28	Tech savvy people more comfortable	.728	
	V25	Educational level determines usage	.529	
F5- Resistance to Change (R2C)	V10	All banking facilities not available on portal	.769	6.156
	V5	Influence of word of mouth for preferred ban	k .688	
F6-Demographics Characteristics 2(D2	.) V26	Rural class does not accept Internet banking	.795	6.047
F7- Security Concerns (SCon)	V31	Bad experience of Internet banking	.717	5.314
	V30	No security in Internet banking	.694	

(2) Reliability and Validity: Customer perceptions for the adoption of IB acceptance were examined. The reliability test was conducted to ensure the consistency of the scale items, to measure the same construct for further data collection. Cronbach's alpha was used to assess the construct reliability of the scale. As shown in Table 3, the ' α ' coefficients for each factor were above the common threshold value (0.70) (Agarwal & Karahanna, 2000). As stated, 25 items were seen significant out of 31 items in the study. The Cronbach's alpha based on standardized items value 0.862 was also higher than Cronbach's alpha value for 31 items (0.847). This signifies an improvement in the model by deleting those items.

Convergent validity means that the items of a specific construct should converge or share a high proportion of variance in common, and is mostly estimated by factor loading; variances extracted and construct reliability (Hair, Black, Babin, & Anderson, 2011). Factor loadings attained for all the items are above the threshold limit of 0.4. Therefore, it is implied that the measurement instrument used is good.

(3) Factor Analysis: Seven components (factors) were extracted in the analysis by means of principal component analysis (PCA). The 25 items determined to measure adoption of IB clearly separated into seven extracted components (factors) that clearly supported the proposed constructs: accessibility, corporate image, demographic characteristics, perceived ease of use, perceived usefulness, self - efficacy, trust, and website quality. These seven factors were combined into five factors in the analysis. Additionally, two more factors were extracted, namely Resistance to Change and Security Concerns. There are limited studies where these two factors have been stated. Hence, there is limited existing literature to support the same. The details of the factors are given in the Table 3.

The factor loading scores of all the predictor variables were above 0.4, except six items, which were suppressed and ,therefore, dropped from the model. Kaiser - Meyer - Olkin test of sampling adequacy confirmed our model's good fit with a coefficient of 0.825. Bartlett's test of sphericity also confirmed "the presence of correlations" among our variables (Hair et al., 2011) with approximate value of 1583.736 at 300 degrees of freedom and 0.000 significance (sig.) level. The overall indication was that our measurement model was appropriate for the study.

The following hypotheses had been framed based on the factors extracted:

- 🖔 **H1:** Perceived Usefulness (PU) has a positive influence on consumers' intention for IB -adoption.
- 🖔 **H2:** Perceived Ease of Use and Trust (PEUT) has a positive influence on consumers' intention for IB adoption.
- 🖔 **H3:** Perceived Quality (PQ) has a positive influence on consumers' intention for IB -adoption.
- \$\to\$ H4: Demographic Characteristics (D) have a positive influence on consumers' intention for IB adoption.
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- \$\,\text{H6: Demographic Characteristics 2 (D2) have a positive influence on consumers' intention for IB adoption.
- \$\to\$ H7: Security Concerns (SCon) have a positive influence on consumers' intention for IB-adoption.
- (4) Correlation Analysis: To examine the relationship between the variables through Karl Pearson's method of correlation, the correlation was conducted. Field (2005) suggested that the correlation is considered weak if the value of the correlation coefficient (r) ranges from 0.10 to 0.29. Correlation is considered medium if the value of r ranges from 0.30 to 0.49. If the value of r ranges from 0.50 to 1.0, the variables are considered as strongly correlated. Furthermore, if the value of correlation coefficients in the study exceeds 0.80, it signifies multicollinearity issues in the instrument. The value of correlation coefficients observed among our study variables was within the range of 0.246 to 0.682. This implies that there were no multicollinearity issues among the study variables as the correlation coefficient did not exceed the higher limit of 0.80. Therefore, the variables were fit for regression analysis.
- **(5) Multiple Regression Analysis :** Multiple regression is used to study the relationship between a single dependent variable and several independent variables (Hair et al., 2011). The study used multiple regression to determine the association between IB-adoption factors and consumers' intention to use Internet banking. Seven main independent variables were analyzed against the dependent variable (behavioral intentions to use Internet banking). The Tables 4, 5, and 6 present the regression analysis output.

The coefficient of determination (R^2) is found to be 0.248, which means that 24.8% of the variance can be explained by the seven independent variables for IB - adoption. This signifies low adoption rate of IB in India. The F- value = 6.355 for the proposed model is suitable at (p - value = 0.000), significant at the 5% level (p < 0.05). Hence, it implies that the overall model is reasonably fit and statistically significant inferences can be drawn. The Durbin - Watson value (1.869) in Table 2 states that there is no autocorrelation between the factors as the value is closer to 2.

The regression results reveal that PU ($\beta = 0.281$, p < 0.05), PEUT ($\beta = 0.345$, p < 0.05), and PQ ($\beta = 0.149$,

Table 4. Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate	Sig. F Change	Durbin-Watson
.498	.248	.209	.0.889467	.000	1.869

Table 5. ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	35.195	7	5.028	6.355	.000
Residual	106.805	135	0.791		
Total	142.000	142			

Table 6. Coefficients and Collinearity Statistics

Construct	β value	t- value	Sig.	Hypothesis	Result
	Beta		Tolerance		
PU	.281	3.760	.000***	H1	Significant
PEUT	.345	4.629	.000***	H2	Significant
PQ	.149	1.996	.048***	Н3	Significant
D	.085	1.134	.259***	H4	Insignificant
R2C	047	626	.533***	H5	Insignificant
D2	034	449	.654***	Н6	Insignificant
SCon	-0.131	-1.749	.083***	H7	Insignificant

Note: *** indicates significant at the 1% level, **indicates significant at the 5% level of significance

p < 0.05) are found to have significant and positive effect on consumers' intention for adoption of Internet banking. Therefore, H1, H2, and H3 are supported. Meanwhile, R2C ($\beta = -0.047$, p > 0.05) is found to have a negative influence on consumers' intention for adoption of Internet banking. Therefore, H5 is not supported. The two particular Demographic Characteristics; D ($\beta = 0.085$, p > 0.05) which has positive influence and D2 ($\beta = -0.034$., p > 0.05) with a negative influence are found to have insignificant influence on consumers' intention for adoption of Internet banking. Hence, hypotheses H4 and H6 are also not supported. Lastly, SCon ($\beta = -0.131$, p > 0.05) is found to have a strong and negative influence on consumers' intention for adoption of Internet banking.

Discussion and Conclusion

This research has examined the factors affecting intentions and attitude of Indians to use and adopt IB innovation. The results of this study show that Perceived Ease of Use and Trust, Perceived Usefulness, and Perceived Quality have a significant direct influence upon consumers' intention for adoption of Internet banking. The TAM structure of 'perceived ease of use and usefulness' to 'usage' is consistent with the relationships observed in a majority of previous studies (Adams, Nelson, & Todd, 1992; Henderson & Divett, 2003; Joo, Lim, & Kim, 2011; Subramanian, 1994; Teo & Noyes, 2011). However, there are also studies with dissimilar results suggesting that this relationship is more complex than generally assumed (Segars & Grover, 1993). Furthermore, in different frameworks, the role of the TAM constructs differ, where one of them is significant and the other is not (Calisir & Calisir, 2004; Saadé & Bahli, 2005). The extant results of studies signify the mounting importance of 'trust' construct in IB acceptance models (Alsajjan & Dennis, 2006; Carvajal & Torres, 2015; Lewicki & Bunker, 1996; Mukherjee & Nath, 2003; Sathye, 1999; Tyler & Degoey, 1996; Yiu et al., 2007).

The outcomes of the past research studies also portray that 'perceived website quality' influences purchase

intention, trust, and customer satisfaction in different frameworks (Bai, Law & Wen, 2008; Hwang & Kim, 2007; Lee & Kozar, 2006; Wells, Valacich, & Hess, 2011).

Managerial Implications

A number of implications for banks providing Internet banking services can be derived from these results. First, it is essential to understand the needs of banking customers and strategize to tap the market potential. Banks should focus on creating awareness about the advantages of Internet banking, focusing on the value being offered visavis, convenient, easy, and speedy service. Moreover, marketers could coin customer engagement strategies to attract the use of Internet banking by either helping their customers learn about the technology or by creating a motivating factor to use IB services. Trust has been seen as a major factor. Therefore, customer relationships can be enhanced by ensuring better service quality and safe transactions. If major banking users switch to Internet banking, it will be a win - win position for customers and banks.

Limitations of the Study and the Way Forward

The conceptual framework considered security and trust as one-dimensional constructs. However, the study segregated the two based on the analysis of data. It signifies that security may be an insignificant factor for adoption, but trust is not built through safe transactions, as assumed in the study. Therefore, future research should assess the multi-dimensional effect of security and trust on adoption of Internet banking. Additionally, the study was limited to factors which directly influence the adoption, but there may be some extraneous or moderating variables to the independent variables of this study. For example, the study portrays no significant direct effect of demographic characteristics on adoption behavior, but there may be the influence of these demographic characteristics on self-efficacy or corporate image or even trust for IB services, which can be focused in future research on IB-adoption. Lastly, the research used a non-probability sampling method, that is, convenience sampling; thus, it may not represent the population adequately. Therefore, future research can extend the number of respondents in a national study considering the major parts of India, which could extrapolate the conclusions more accurately.

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