

Influence of Trust and Security Risk on Consumer Intention towards Adoption of Internet Banking: A Study in Indian Metro

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ABSTRACT

In coming year's banking sector around the globe will go through a new transformation as the technology will become extraordinarily complex. In this study, the researchers have conducted a online survey on 150 respondents from metro cities in India. The researchers also evaluated the intentions of consumers in order to adopt the internet banking services. A sample of 150 consumers was taken to measure intention of people towards adoption of internet banking. On the basis of the literature review, the researchers have hypothesized that: both trust and risk has positive influence intention towards adoption of internet banking. Results of the study supported the hypothesis and it was found that trust and security risk were main concern for non-adopters of internet banking.

Keywords: Internet Banking, Trust, Security Risk, Technology Adoption.

1. Introduction

Remarkable transformation can be seen in worldwide especially in context to financial services. To meet the needs of customer in this dynamic environment, banks also updating themselves for their survival and to face their competitor (Mann and Sahni, 2012). When we talk about financial services a wide range of innovations, latest technology and new trends can be seen especially in banking industry. Now brick and mortar banks are not more mandatory, banks now replacing their traditional way of providing services with internet banking. so that they can attract new customer, enhance customer satisfaction and can maintain customer loyalty Internet banking is a delivery method, through which banks providing their product and services through digital mode (Furst et al., 2002; Pikkarainen et al., 2004; Shanbaug, 2013). Not only developed countries but also developing and under develop countries are also adopting this innovative way because of its manifold benefits like convenience, 24/7 hours availability, lesser cost, easy to handle and access (Gerrard and Cunningham, 2003; Corrocher, 2006). The efficiency in the delivery of Internet banking services can be achieved only when consumers show preference for the adoption of this channel in addition to the quality of infrastructure facilities available.

As per the survey conducted by IAMA report, 2013 there are 137 million Internet users in India, and it's likely to grow 275-285 million by June 2017. Thus India has a great potential for Internet banking services. Several studies has been conducted on internet banking adoption worldwide (Sathye, 1999; Adesina and Ayo, 2010; Karjalouto et al., 2002) in developed countries, (Ravi et al., 2007; Jahangir and Begum, 2008; Agarwal et al., 2009; Kalaiarasi and

Srividya, 2013) in developing countries like India. But in spite of several research on internet banking adoption still researcher reports that there is low rate of internet banking adoption in India. Technology adoption is a large process and various theories have been developed to understand this process such as Theory of Reasonable Action (TRA), Theory of Planned Behaviour (TPB), Technology Adoption Model (TAM), and UTAUT. Hence it is important to understand customer point of view why they adopt a technology and what are the factor which resist them to adopt new technology and in order to be successfully adopted and utilized. Previously studies study trust and security as one of the strongest determinates of consumer's intention towards adoption of internet banking (Pavlou et al., 2003; Erciş et al., 2012; Wang et al., 2015). Many researchers conclude that perceived risk influence consumer's trust and affect their intention towards adoption of new technology. Thus need for more empirical study arise to understand this two highly influencing factors in more detail? This current study is segmented as follows in first section of the article introduction of the concept given followed by detail literature review related to customer attitude towards adoption of internet banking. In third segment blue print of the research design is given and then conclusion and scope of the study.

2. Literature Review

This part of paper is relevant to detail review of previous empirical researchers on internet banking adoption and determinants of internet banking adoption. Many empirical researches have been conducted on determinants of technology adoption especially in context of internet banking in recent years. Pointing the factors

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such as price, convenience, efficiency, accessibility, awareness, literacy, demographic variables, bank creditability and so on, and concluded that security risk and trust are one of the highly influencing factors affecting consumer attitude and behavioral intention towards adoption of internet banking (Hernandez and Mazzon, 2007). Ponder et al., 2016 conducted an empirical study to measure consumer's intention towards adoption of internet banking and come up with the fact that if customer trust any technology they more likely to adopt and use it, but due to lack of trust, they fear to adopt. Chen and Barnes, 2007 concluded that due to lack of trust and security people resist to adopt internet banking which lead to reduction in rate of adoption and Yang et al., 2015 add on that it also affect their intention to adopt and also dissatisfaction of customers because due to uncertainties and fear of adverse effects such as errors and failure in any transaction are biggest concern of the people (Mitchell, 1999). Belanger et al., 2002; stated that security concern is higher among the people who conduct transaction online, because there is lack of certainty and high chances of transaction failure and loose of money. Perceived risk is the strongest influencing determinants of internet banking adoption than perceived ease of use and perceived usefulness (Salisbury, 2001).

Researcher also found out that due to no personal contact or no face to face interaction between the banks and their customer is also a one of the element that people considered while making any transaction online. Featherman and Pavlou, 2003, also supported the fact that trust and risk are one of the most influencing determinants of internet banking adoption. Trust is one of the influencing factors on which decision of people rely on (Mukherjee and Nath, 2003). In past studies it was found that trust has positive and direct influence on customers' intention (Howcroft et al., 2002; Hussain Chandio et al., 2013). In line with the above literature (Lee, 2009) also concluded that risk has a direct and positive influence on customers intention to adopt internet banking.

We therefore hypothesize that:

H1: Trust has a significant positive and direct effect on consumers' intention.

H2: Perceived risk has a significant positive effect on consumers' intention.

3. Research Methodology

Questionnaire design

Statements of the questionnaire are taken from the past studies and modify as per the need of the study. All the statements of the questionnaire are range from strongly agree to strongly disagree on a five likert scale. Whereas 1 = strongly agree and 2 is denoted as strongly disagree. In

questionnaire five statements to measure trust construct were taken from (Sathye, 1999; Amin, 2007), four statements to measure security risk were taken from (Zhao et al., 2008; Manzano et al., 2009) and finally for intention construct six statements were taken from (Shih and Fang, 2004; Walker and Johnson, 2006).

Sample size and Data collection

Data for the current study was collected through an online survey, the only criteria for respondents is that they must be an internet users. Data was collected in time span of two months from March to April. For collection of data questionnaire were formed in google doc and link of it were sent randomly through mail, on facebook page, in Whatsup group. To collect data in small time researcher has used convenience sampling and link were sent to respondent with a request mail attachment to forward it further. In total 150 responses were collected making a sample size of 150 for a study.

Data analysis tools

For analyzing data SPSS 20 version were used. First reliability and validity of instrument were measured through KMO and Cronbach's alpha test. Results shows KMO=.786 and Cronbach's alpha = .823 which is satisfactory for conducting further analysis and make a instrument reliable and valid for the study because as per Field, 2009 reliability and validity of the instrument above .50 considered to be acceptable. Further to test the hypothesis regression and correlation were applied.

Data Analysis and Discussion

Table 3. 1: Descriptive Statistics

Characteristics	Frequency
Total Sample	150
Gender	
Male	85
Female	65
Age	
15-20	32
21-25	53
26-30	39
31-35	26
Educational Qualification	
Intermediate	35
Graduate Course	59
Post Graduate Course	56

.Table3.1 Shows descriptive statistics and maximum respondents were male 85 and 65 are female. The age wise distribution shows a majority of respondents belong to 21-25, 26-30 means number of people using internet were belong to this two age group. Maximum numbers of respondent are graduate and having knowledge of

Table 3.2: Model Summary
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.723	.523	.521	4.17786

a. Predictors: (Constant), TRUST

internet and operating computer.

Testing of hypotheses

This section is dedicated to exploring and analyzing answer to research objectives and testing of hypothesis. The main focus of the study is to analysis the impact of customer trust and security risk on their intention to adopt

internet banking.

H1: Trust has a significant positive and direct effect on consumers' intention.

Regression analysis was applied to analysis on the data obtained from the respondents.

Table 3.3 ANOVA Table
ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	30744.565	6	5124.094	295.176	.000
	Residual	28087.589	1618	17.359		
	Total	58832.154	1624			

a. Dependent Variable: INT

b. Predictors: (Constant), TRUST

Table 3.3 shows the value of F-test which determine the overall significant of the regression model. If the value of p

for the F test is less than significant level specified .05 or 1 % than regression model is significant. The value of the F-test is significant which accept the null hypothesis of the model.

Table 3.4 Coefficients
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.050	.510		5.975	.000
	TRUST	.505	.054	.196	9.347	.000

a. Dependent Variable: INT

Table 3.4 shows the value indicates that if there is a change in trust by one unit, there will be .505 units of change in the intention. Thus trust is the significant predictor of intention. The unstandardized regression coefficients, b in a regression model indicate the strength of the extent of impact of the independent variable on the dependent

variable, when all other independent variables are held constant.

H2: Perceived risk has a significant positive effect on consumers' intention.

Table 3.5: Model Summary
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.715	.512	.512	2.65473

a. Predictors: (Constant), risk

The value of $r=.715$ shows the strength of correlation between the dependent intention and the independent trust which is highly significant. $R\text{-square}=.512$ represents the variance generated by the independent variable in relation to the outcome variable (51.2%) and the adjusted

r-square value is .512 which cross validates the model.

It can be seen through results of ANOVA (Table 3.6) that the decision model is significant with F-Test value (295.176; $p<.05$).

Table 3.6 ANOVA Table
ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	11990.215	1	11990.215	1701.325	.000
	Residual	11431.164	1622	7.048		
	Total	23421.379	1623			

a. Dependent Variable: INT

b. Predictors: (Constant), risk

Table 3.6 shows the value of F-test which determine the overall significant of the regression model. If the value of p

for the F test is less than significant level specified .05 or 1 % than regression model is significant. The value of the F-test is significant which accept the null hypothesis of the model.

Table 3.7 Coefficients
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.310	.266		12.465	.000
	risk	.451	.011	.715	41.247	.000

a. Dependent Variable: INT

Table 3.7 shows the value indicates that if there is a change in risk by one unit, there will be .451 units of change in the intention. Thus risk is the significant predictor of intention. The unstandardized regression coefficients, b in a regression model indicate the strength of the extent of impact of the independent variable on the dependent variable, when all other independent variables are held constant.

4. Conclusion

Result of the study shows that trust and security risk both were significant determinants of intention. Trust and security risk both were significantly influencing consumer intention towards adoption of internet banking. This shows that people still prefer to visit bank for conducting their financial transaction, in spite of doing it online through a digital mode. Lack of face to face interaction and fear of losing money and chances of transaction failure are lead increase trust issues. Thus in line with previous studies this study also supported the fact that risk increasing the trust issues and lead to low adoption rate (Yousafzai et al., 2005).

Hence it is suggested that banks and government must take a initiate to guide and provide complete knowledge and education to non-adopters of internet banking and try to build trust among that show that they will not fill insure while adopting internet banking. security is also a one of the hindrance in adoption of internet banking thus , education programme must be initiated so that people will come to know how they can kept them secure from the fraud and other unauthorized activities. It was found in a study that non – adopter resists to adopt internet banking because they are not completely literate or

knowledgeable. Hence there is huge need of awareness and education Programme for them. Now day's banks are investing huge amount to make their services online, but this investment is worthless if their customers were not comfortable in using them. Thus for successful implementation of this new technology banks must first understand the needs of their customers. Many customers have fallen prey to fake calls and lost not just money but cases of identity theft have also been reported, and that also evident by many newspapers and news channel in recent years. So, the results of this paper show that consumer information privacy is not just necessary but mandatory for building a level of trust.

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