

Consumer Adoption of Net Banking in Tier-III Cities of Andhra Pradesh: An Empirical Study



Management

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ABSTRACT

Usage of internet is more readily available in present business environment due to technological spread. To gain advantage of internet usage by the customers almost all the bankers are extended their banking services through internet. However the use of such technologies by the customers in banking services is still moderately slow. In this link there is a need to access the factors which will influence the technology acceptance and adoption in these banking services by the customers. The main purpose of this study is to examine the factors which will influence the adoption of net banking by using technology acceptance model (TAM). Through survey method 250 questionnaires were circulated out of which 230 were accepted as valid instruments for primary data. From the data analysis it is found that the factors perceived usefulness, perceived ease of use, perceived enjoyment, customer traits, perceived self efficacy, perceived related advantage, perceived credibility and trailability significantly influenced customers' adoption towards usage of net banking. Therefore from the results of data analysis it is understood that above factors are vital in technology acceptance and adoption by the customers towards net banking usage. The study practically directs the online banking service providers to take necessary measures to grab the opportunities in the electronic commerce environment.

Introduction

Internet And Mobile Association of India (IAMAI) said that internet users in India reached to 213 million from 150 million in 2012 with growth rate of 42%, and it is expected to touch 243 million internet users by June 2014. Data collected from a few banks indicates that substantial numbers of customers are registering for internet banking facility and there has been a significant growth in the usage of internet banking for funds transfer through NEFT and RTGS - the electronic payment settlement systems. There has been a 24 % increase in RTGS transactions and 74% increase in NEFT transactions which show the customer acknowledgement of convenience and trust. (Harun R Khan, 2013)

According to a survey conducted by McKinsey & Company covering 5000 mass, mass-affluent and the affluent consumers across India, as many as 7% of account holders in the country are using the Internet for banking transactions (PTI, 2011).

Traditional branch banking is very expensive due to increasing real estate rentals, staff costs, insurance, and electricity costs. It has been estimated that banks can save around 50% on the cost of transactions through the use of on-line banking, because of which almost all the banks are offering internet banking and are trying to make the customer adopt this medium in a big way. But, still the adoption of internet banking in the country is not as expected. The technology savvy urban, employed youth with internet access at home and/or office has been using this mode of banking mostly. Some of the net banking customers are using it purely for information purpose. The penetration of internet banking in tier-III cities is still not considerable. A study predicts that only 22% of the internet users are using online banking.

Clearly, in order to grow consumer internet banking demand, banks must make key improvements that address consumer concerns. Hence, it is important for financial institutions to gain an understanding of the key factors that influence consumer internet banking adoption. This paper specifically investigates the critical elements that influence the consumer decision to adopt internet banking with special reference to tier - III cities.

CONCEPTUAL FRAMEWORK AND RESEARCH HYPOTHESES

Many factors influence the consumer behavior in trying, accepting and adopting a new technology. Many theories of consumer behavior; innovation diffusion, technology acceptance, online consumer behavior etc. try to explain the consumer adoption of different new products, services and technologies. This study adopted Technology Acceptance Model to understand the various antecedents that influence and shape consumer adoption process of online banking.

The technology acceptance model (TAM) developed by Davis (1989), proposes 'perceived usefulness' and 'perceived ease of use' are the two main influences in user adoption of new technologies. More recent studies employing TAM have identified additional constructs that influence internet service adoption. An extensive review of literature is done to identify the factors that may influence the adoption of net banking with special reference to smaller towns. The researchers keeping in view the socio, economic, cultural, demographic and geographic setting of the tier-III cities in India have critically evaluated the findings of various earlier studies connected to consumer adoption of online services. The following are the variables, this study proposes, may influence the adoption of internet banking in tier-III cities of India;

Perceived Usefulness

Perceived usefulness is defined as the degree to which a person believes that using a particular system would enhance his or her job performance (Davis, 1989). Through his Technology acceptance model Perceived usefulness is the significant variable that affects the acceptance of technology by the users. A number of researchers have provided significant evidence of effect of perceived usefulness on net banking usage. Seethaetchumy Thambiah et al., (2010) Bedman Narteh (2012), Uchenna Cyril Eze et al., (2011), Venkatesh V et al., (2008) in their research concluded that perceived usefulness was a significant factor for determining net banking usage. Hence, if the account holder believes that online system is useful in general the customers will accept net banking.

H₁: Perceived usefulness of using internet will have a positive effect on net banking adoption

Perceived ease of use

Perceived ease of use is defined as the degree to which a person believes that using a particular system would be free from effort (Davis, 1989). The difference between ease of use and usefulness is that ease of use is more focused on the consumers' perception of the process that leads to the final outcome, whereas usefulness refers to only the outcome of the online banking experience. Seethaetchumy Thambiah et al. (2010), Bedman Narteh (2012), Uchenna Cyril Eze et al. (2011), Venkatesh V et al. (2008), concluded, in a simplified manner, that ease of use is how easy the internet is to use as a tool for net banking in completing their transactions, therefore account holders are more likely to accept to use the technology the more effortless and easier to complete their transactions.

H₂: Perceived ease of use of using internet will have a positive effect on net banking adoption

Perceived Enjoyment

Perceived enjoyment refers to the extent to which the activity of using a computer is perceived to be enjoyable in its own right (Davis et al., 1992). Perceived enjoyment can be seen as an intrinsic motivation to use information technology whereas the perceived usefulness as an intrinsic motivation. Arunkumar(2008)in his study on attitude and intention towards Internet banking with reference to Malaysian consumers in Klang valley region notified that perceived enjoyment significantly affects customers’ acceptance of net banking usage. SeyyedMohammad-Mirmohammadi and AbolfazlSohrabi(2013)also expressed that perceived enjoyment is the important variable which will have influence on customers’ acceptance of net banking. Even Mihir Kumar Roy(2011)revealed the same.

H₃: Perceived enjoyment of using internet will have a positive effect on net banking adoption

Consumer Traits

To understand why consumers choose online banking one need to address different consumer traits, such as personality characteristics and demographic factors. MihirKumar Roy(2011)in his empirical study on online banking in Bangladesh has identified four demographic factors age, gender, education and income which will have considerable influence on accepting net banking.

H4a: Age of customers will have significant influence on net banking adoption

H4b: Gender of customers will have significant influence on net banking adoption

H4c: Education of customers will have significant influence on net banking adoption

H4d: Income of customers will have significant influence on net banking adoption

Self-Efficacy

Ormrod J.K(2006)defined Self-efficacy as the extent or strength of one’s belief in one’s own ability to complete tasks and reach goals. Vainio(2006)in his study discussed that self efficacy of the user depends on his learning ability and other factors like self confidence, nature of the individual user. It is suggested that the more the user believes on this ability to use the internet, the more likely it is that the user will start using the computer in his activities. IlhamSentosa(2012) in his research on a structural equation modeling of internet banking usage in Malaysia,found that self-efficacy plays an important role in confirming the acceptance of internetbanking usage.

H₅: Self-efficacy of using internet will have a positive effect on net banking adoption

Perceived credibility Perceived credibility is defined as to which one partner believes that the other partner has the required expertise to perform the job effectively and reliably (Ganesan, 1994).

Ganesan (1994) defined perceived credibility as to which extent one partner believes that the other partner has the required expertise to perform the job effectively and reliably. In case of internet banking it is the confidence of the customer on the bank’s ability to provide and safe and secure channel for online banking. Y. S. Wang, Y. M. Wang, H. H. Lin, and T. I. Tang(2003), in their empirical study on determinants of user acceptance of Internet banking found that perceived credibility by any internet user depends on two elements that are security and privacy. In addition, Uchenna and IlhamSentosa(2012)found that net banking users were very concerned about privacy & security and majority of them were using Internet banking for accounts enquiry only due to the credibility concern.

H₆: Perceived credibility significantly influences customer acceptance of net banking

Relative advantage

According to Rogers (2003) relative advantage is defined as the degree to which an innovation is perceived as being better than the idea it supersedes. Relative advantage requires the adopter to analyze the costs and benefits of using an innovation, which can be expressed economically, socially, or in other ways. Khalil MdNor(2007)in his study on the Influence of trust on Internet banking acceptance found that relative advantage was having significant effect on consumers acceptance towards net banking.

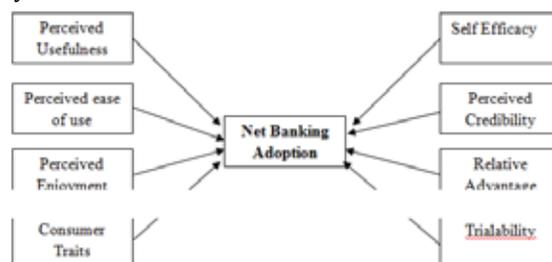
H₇: Perceived relative advantage of using internet will have a positive effect on net banking adoption

Trialability

Black, N., Lockett, A., Winklhofer, H. & Ennew(2001), defined trialability as the degree to which an individual perceives the bank to offer chances for him/her to try internet banking prior to any decision to adopt. Ali Saleh Al-Ajam and Khalil Md Nor(2013) found that there is a significant relationship between trialability and consumer intention to adopt internet banking. In addition he also suggested that banks should provide awareness and encouraging steps to the potential customers in order to improve the internet acceptance.

H₈: Trialability of using internet banking will have a positive effect on adoption

Figure 1: Conceptual Model of Internet Banking Adoption by Customers of Tier- III Cities



Methodology

Our research objective was, to understand the impact of variables like perceived usefulness, perceived ease of use, perceived enjoyment, consumer traits, self-efficacy, perceived credibility, relative advantage and trialability on adoption of net banking. In this study, 250 customers of various banks in the five tier-III cities of Andhra Pradesh state are approached with a structured questionnaire out of which 230 questionnaires were accepted as valid instruments for primary data. Formulation of questionnaire is based on the literature collected from various sources. Questionnaire consisted of two sections. First section dealt with demographic and technological variables like age, income, gender, education, internet usage etc. and the second consisted of statements pertaining to each variable being studied. Response for each statement was sought using five-point Likert scale.

Data analysis

Table 1 gives the frequency distribution of sample respondents on age, education qualification, income and gender. The sample has adequate representation of various sections of society. Internal consistency of the data is assessed by calculating the Cronbach’s alpha. Results of reliability test are presented in Table 2. As the Cronbach’s alpha value for all the constructs in the study is greater than 0.773, we conclude that the scales can be applied for the analysis with acceptable reliability.

To understand the influence of the proposed variables on the adoption of internet banking, multiple regression analysis was employed. The variables perceived usefulness, perceived ease of use, perceived enjoyment, consumer traits, self-efficacy, perceived credibility, relative advantage and trialability are taken as independent variables and the adoption of internet banking as the dependent variable. Results of multiple-regression are presented in Table 3. It is found that all the eight variables have

significant positive effect on net banking adoption. All the formulated hypotheses were accepted.

Chi-square test is used to find the relationship between the customer traits – age, gender, education, and income and adoption of internet banking. It is found that age and income levels have significant influence whereas gender and education do not significantly influence.

Discussion

The result obtained from analysis indicate that there is a significant positive relationship between net banking adoption and the proposed variables - perceived usefulness, perceived ease of use, perceived enjoyment, consumer traits, self-efficacy, perceived credibility, relative advantage and trialability. The result point out that respondents were keen on the advantages net banking would offer them if they used it relative to traditional branch banking. The advantages include convenience of the system like ability to use anytime and anywhere.

There is a positive significant relationship between perceived ease of use and consumer net banking adoption. Result is in conformity with the previous research findings of SeethalechumyThambiah et al. (2010), BedmanNarteh(2012), Uchenna Cyril Eze et al.(2011), Venkatesh V et al (2008). The banker need to create a net banking design which makes the customer feel usage of internet is easy and effortless.

Perceived enjoyment can be seen as an intrinsic motivation to use information technology, in research it is found that perceived enjoyment of using internet will have a positive effect on net banking adoption. Hence, individuals who experience immediate satisfaction and joy from using the internet or technology will be more likely to use it more widely than others. The ability to use internet will enhance the self-confidence and comfort levels of the customer. It is suggested that the more the user believes on this ability to use the internet, the more likely it is that the user will start using the computer for activities. Self-efficacy thus influences the adoption of internet banking.

Perceived credibility is one of the main factors which will affect the acceptance and adoption of net banking. So, the bankers need to maintain privacy and security measures in all kinds of financial transactions in order to improve the perceived credibility of the user. Perceived relative advantage of using internet will have a significant positive effect on net banking adoption. Hence, the banker should highlight the benefits of net banking such as low transaction cost, accessibility, quick and convenient financial transactions and access to financial information.

Perceived trialability of using internet will have a positive effect on net banking adoption. So the banks need to make the customer try internet banking at the branch itself with the guidance of a bank employee to understand the advantages of net banking and turn towards net banking.

Customers in the age group of 18-45 are found to adopt internet banking more easily than older customers. High income group customers are in the forefront of adopting the internet banking in the tier-III cities.

Conclusion

Given the fact that perceived usefulness, perceived ease of use, perceived enjoyment, customer traits, perceived self-efficacy, perceived relative advantage, perceived credibility and trialability are the important attributes which will have impact on net banking acceptance and adoption among the consumers of tier-III cities, banks need to initiate new business practices like establishing a kiosk at the branch to let the customers try their internet banking in the guidance of employees to help the novice customers adopt the net banking. Given the fact that time, distance, parking facilities are not serious constraints for the tier-III city customers, banks should find new ways to create confidence among the customers as well as make they realize the pleasure of online banking to make them adopt this channel that has many advantages for both the customers and banks.

Table 1: Characteristics of the sample respondents

Demographic Variable	Category	No. of Respondents	Percentage
Gender	Male	152	66.08
	Female	78	33.91
Age	18-25 years	42	18.26
	25 - 35 years	86	37.39
	35 - 45 years	63	27.38
	Above 45 years	39	16.95
Educational Qualification	Under UG	47	20.43
	UG	151	65.65
	PG	32	13.91
Monthly Income	UptoRs. 10,000	34	14.78
	Rs. 10,000 to Rs. 25,000	105	45.65
	Rs. 25,000 to Rs. 50,000	52	22.60
	Above Rs 50,000	39	16.95

Table 2: Factor wise reliability analysis

Reliability Statistics				
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items		
.963	.964	9		
S.No	Variable	No. of Items	Mean	Cronbach's Alpha
1	Perceived Usefulness	6	3.983	.790
2	Perceived Ease of Use	6	3.685	.811
3	Perceived Enjoyment	5	2.958	.773
4	Self-efficacy	7	3.221	.834
5	Perceived credibility	9	3.564	.880
6	Relative advantage	7	2.952	.834
7	Trialability	6	3.002	.802
8	Net banking adoption	6	3.552	.826

Table 3: ANOVA

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.403	0.373		3.763	.000
Perceived Usefulness	1.036	0.713	1.072	1.453	.007
Perceived Ease of Use	1.722	0.688	0.971	2.501	.013
Perceived Enjoyment	1.099	0.681	0.795	1.613	.018
Perceived self-efficacy	0.365	0.135	0.373	2.696	.008
Perceived credibility	1.701	0.575	1.651	2.959	.003
Relative advantage	1.054	0.145	0.067	0.371	.011
Trialability	0.011	0.083	0.011	.129	.022
a. Dependent Variable: Net Banking Adoption			R2 : 0.637	Sig < 0.05	

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