Asian Journal of Information Technology 14 (6): 200-204, 2015
ISSN: 1682-3915

A Study on the Role of Socio-Economic Characteristics on Adoption of Internet Banking in Chennai Metropolitan City, Tamil Nadu, India

[1]P. Sridharan, [2]P. Saravanan and [2]V.M. Shenbagaraman
[1]Department of International Business, School of Management,
Pondicherry University, Puducherry-605014, Pondicherry, India
[2]Department of Kanchipuram, Faculty of Management, SRM University,
Kattankulathur-603203, Tamil Nadu, Chennai, India

Abstract: Banks today operate in a highly globalized competitive environment. Banks race against each other in attracting new customers and satisfying their existing customers by introducing the latest technology. People from various states are living in Chennai. This is a challenge to the banks in many aspects. Since, Indian bank is pioneer in computerization, bank has to know the role of socio-economic variables such as age, gender, educational qualification, income and occupation on adoption of Internet banking. It will help the bank to formulate an effective strategy to retain and attract new customers. This study is carried out to identify the socio-economic variables of the customers of Indian bank who use Internet banking and also to examine the role of socio-economic characteristics on the adoption of Internet banking of the customers of Indian bank in Chennai Metropolitan City. Descriptive research design and judgment sampling are used for this study. Questionnaire is used to conduct the survey with 231 Internet banking users of Indian bank in Chennai Metropolitan City. It is found that the gender, educational qualification, occupation and annual income play a major role on adoption of Internet banking of Indian bank in Chennai. The age and marital status of respondents have no role on adoption of Internet banking of Indian bank in Chennai.

Key words: Socio-economic characteristics, adoption, Internet banking, Indian bank, occupation

INTRODUCTION

The revolution of information technology has made an impact on the Indian banking system. The use of computers lead to the introduction of online banking in India.

In the present day, banks operate in an extremely Globalized competitive environment. Banks battle against each other to attract new customers and also to satisfy them by introducing the latest technology. In India, during 1990's, the Private banks have started offering their products and services through internet to attract the potential customers. The nationalized banks have also started offering their products and services through internet to retain the existing customers and also to draw the attention of new customers. Indian bank is one of the nationalized banks in India and it is pioneer in computerization. It also provides most of the banking products and services to the customers through online banking.

The benefits of Internet banking are evident to those who use the products online. The customers need not to wait in the queue hours together. They can carry out a variety of transactions such as transfer fund, pay a diversity of utility bills and can invest (Hong *et al*., 2013). So, there is a myth that the metropolitans feel convenient to avail internet based financial products and services. But it is not true when we compare the Indian bank Internet banking users with its account holders. There are 26.15 lakhs savings bank account holders of Indian bank in Chennai Metropolitan City. Though, Chennai is one of the IT hubs in India. The 1.51 lakhs customers only are having Internet banking account. It shows that only 5.8% of the savings bank account holders are availing internet based financial products and services.

This shows that in India, the use of Internet banking has not yet reached its maximum potential. This means that banks, financial institutions and consumer educators still require to make an effort to be aware of the customers socio-economic characteristics and factors which lead

Corresponding Author: P. Sridharan, Department of International Business, School of Management, Pondicherry University, Puducherry-605014, Pondicherry, India

to the adoption of Internet banking. There are some socio-economic characteristics which prevent the customers from availing products and services through internet. The socio-economic characteristics which prevent the customers from availing financial products and services through internet have to be identified.

Tamil Nadu is one of the leading states in information technology industry in India. Chennai is the capital of Tamil Nadu and also one of the information technology hubs of India.

People from various states are living in Chennai. This is a challenge to the banks in various aspects. Bank's pronouncement to offer Internet banking depends on the characteristics of the market place the bank serves such as the demographic characteristics of potential customers as well as whether the bank is located in a metropolitan area (Hernandez-Murillo and Roisman, 2004). Socio-economic characteristic also plays a very important responsibility in understanding the buying behavior of customers in diverse segments and while the characteristics are well-known, they allow companies to facilitate products and services according to their potential customers' exact requirements, tastes and preferences (Sakkthivel, 2006). Since, Indian bank is pioneer in computerization, bank has to know the socio-economic characteristics and the role of socio-economic variables such as age, gender, educational qualification, income and occupation on adoption of Internet banking. It will help the bank to formulate an effective strategy to retain 5.8% of their Internet banking customers, convert the remaining 94.2% of their savings bank account holders into Internet banking customers and also to attract new customers. So, this study identifies the socio-economic characteristics of the customers of Indian bank who use Internet banking and also to examine the role of socio-economic variables on the adoption of Internet banking of the customers of Indian bank, Chennai.

Adoption of Internet banking: The development in the vicinity of information and communication tool has revolutionized the method in which business is being conducted. At the present time, the internet plays a significant role in banking sector. Banks are offering their banking products and services through internet. The internet is a global information system defined by three characteristics; they are: a network composed of computers and other devices that are logically linked together by a unique address space based on the internet protocol. A network where network devices (computers, routers, hubs and other equipment) are able to support communication using TCP/IP or other compatible protocols. A network that provides high-level services layered on a communication and network infrastructure.

Internet banking: Internet banking refers to the system that enables bank customers to access account and general information on bank products and services through a PC or other electronic device. Since, the mid-1990s, US financial institutions have swiftly amplified their products and services through internet (Damar and Hunnicutt, 2010). Internet banking is therefore an essential internet-delivery service to facilitate benefits for both banks and its customers. Internet banking have turn into a widespread service presented by numerous depository institutions (Damar and Hunnicutt, 2010).

Demographic profiles are regularly used as a foundation for understanding the characteristics of consumer. The reputation of using demographic profile is attributable to the observed relationship between the consumption of certain products and certain demographic factors. Age, sex, income, occupation and education of the respondents are known as demographic characteristics (Kotler, 1982).

Banks and financial institutions are required to consider user's socio-economic characteristics to offer the acceptable range of products and service in order to influence the potential customer towards the adoption of Internet banking services. Few studies have been conducted to profile the internet user's demographic characteristics and the outcome of these studies propose that innovators who fit in to the category of high income are generally initial users of the internet (Flynn and Goldsmith, 1993; Christopher *et al*., 2006). Sakkthivel (2006) divulge that internet user's profile tend to be young, male, well educated and earning an above-average income. According to Howcroft *et al*. (2002), demographic characteristics that express usual electronic banking consumers comprise young, wealthy and highly educated. A finnish study (Mattila and Mattila, 2005) makes known that Internet banking adopters are comparatively well-off, highly educated and are in elevated professions. Awamleh and Fernandes (2006) also discover that in United Arab Emirates, young affluent and highly educated groups normally concur technological changes more readily. Ong *et al*. (2014) pointed out that different educational backgrounds and various income levels influence the consumer behavior. The following hypotheses are proposed based on the review of the findings of previous studies:

- H_1: there is a relationship between gender and the adoption of Internet banking
- H_2: there is a relationship between age and the adoption of Internet banking
- H_3: there is a relationship between marital status and the adoption of Internet banking
- H_4: there is a relationship between educational qualification and the adoption of Internet banking
- H_5: there is a relationship between occupation and the adoption of Internet banking
- H_6: there is a relationship between annual income and the adoption of Internet banking

MATERIALS AND METHODS

For the purpose of this study, Chennai is chosen. Chennai is more appropriate since the people from various states are living in Chennai. The population for this study is the Indian bank Internet banking users in Chennai metropolitan city. A pilot study has been conducted to test the reliability and validity of the questionnaire. Judgment sampling has been followed for the study. The 231 customers of Indian bank who use Internet banking are considered as the population for this study. The data required for the study is collected through a structured tested questionnaire.

RESULTS AND DISCUSSION

The 231 Internet banking users of Indian bank have been surveyed. It is found that most of the respondents are male, middle age group (30-42 years), married, under graduate holders, working in private organization and belong to above average annual income group (Rs. 300001-500000). Table 1 shows the socio-economic characteristics of the respondents.

Inference: It is observed that 68.83% of the respondents are "male", 44.58% of the respondents belong to "above 30-42 years", 73.59% of the respondents are "married", 36.36% have completed "under graduate", 59.30% of the respondents are working in "private organization" and 41.12% of the respondents are with the annual income of "Rs. 300001-500000".

Role of gender on adoption of Internet banking: The 'p' value for gender is "0.010" which is <0.05 (Table 2). So, Gender is significant on adoption of Internet banking. Hence, it is inferred that there exists a relationship between gender and adoption of Internet banking. It is found that more number of male respondents (68.83%) have adopted Internet banking. It shows that males prefer Internet banking than females because Internet banking is familiar with men than women. Also males are eager to adopt new technology than females because men are ready to take up any new development when it comes to technology than women. The outcome is consistent with Sakkthivel (2006) who exposed that the profile of an Internet user tends to be male. It is suggested that awareness on Internet banking products, services and its benefits to be created among females. Females are to be educated that there is no complexity in using Internet banking and also there is no risk. Their self-confidence to be improved so that they can be able to face the consequences of using Internet banking.

Role of age on adoption of Internet banking: The 'p' value for age is "0.442" which is >0.05 (Table 3). It shows that there is no dependence between age and adoption of Internet banking. Most of the respondents who adopted Internet banking are in the age group of between 30 and 42. The distribution shows that Internet banking is

Table 1: Socio-economic characteristics of the respondents

Characteristics	N	%
Socio-economic characteristics		
Gender		
Male	159	68.83
Female	72	31.17
Age		
18-30 years	71	30.73
Above 30-42 years	103	44.58
Above 42 years	57	24.69
Marital status		
Bachelor/Spinster	61	26.41
Married	170	73.59
Educational qualification		
Up to Hr. Sec.	00	00.00
Diploma	32	13.86
Under graduate	84	36.36
Post graduate	77	33.33
Professional course	38	16.45
Demographical characteristics		
Occupation		
Private organization emploee	137	59.30
Government employee	53	22.96
Business	29	12.55
House wife	12	05.19
Annual income		
Up to 100000	00	00.00
100001-300000	91	39.39
300001-500000	95	41.12
Above 500000	45	19.49

Computed table using SPSS

Table 2: χ^2-test for relationship between gender and adoption of Internet banking

Internet banking users	Values
Gender	
Male	159 (68.83%)
Female	72 (31.17%)
Total	231 (100%)
Chi-square value	5.927
p-value	0.010*

Table 3: χ^2-test for dependence between age and adoption of Internet banking

Internet banking users	Values
Age	
18-30 years	71 (30.73%)
Above 30-42 years	103 (44.58%)
Above 42 years	57 (24.69%)
Total	231 (100%)
Chi-square value	1.631
p-value	0.442

Table 4: χ^2-test for dependence between marital status and adoption of Internet banking

Internet banking users	Values
Marital status	
Bachelor/spinster	61 (26.41%)
Married	170 (73.59%)
Total	231 (100%)
Chi-square value	0.650
p-value	0.242

Table 5: χ^2-test for tendency to use Internet banking when a person is qualified

Internet banking users	Values
Educational qualification	
Up to HSC	00 (00.00%)
Diploma	32 (13.86%)
UG	84 (36.36%)
PG	77 (33.33%)
Professional course	38 (16.45%)
Total	231 (100%)
Chi-square value	62.447
p-value	0.000**

popular with middle age. The result is consistent with Sakkthivel (2006). Bank has to made both the youngsters and old age people to understand the benefits and convenience of using Internet banking.

Role of marital status on adoption of Internet banking: The 'p' value is >0.05 (Table 4), there is no dependence between marital status and adoption of Internet banking. Married respondents have adopted Internet banking than bachelor/spinster. It shows that married respondents are interested to use new technology. Married respondents may not be interested to visit the bank. They may be interested to do their banking transaction from their convenient place because they may be supported by their family members. Bachelor/spinster may not get moral support from their family members. So, they need to be provided moral support by the bank. It is the duty of the bank to explain them about the moral support which will be provided by the bank.

Level of education and Internet banking adoption: The 'p' value is "0.000". The 'p' value is less than "0.01" (Table 5). It shows that there exists a relationship between educational qualification and adoption of Internet banking. The maximum percentage of respondents who have completed under graduate (36.36%) adopted Internet banking. The table shows that the respondents who hold post graduate (33.33%) have also shown interest in adopting Internet banking. It shows that educationally qualified respondents prefer Internet banking. There is tendency to use Internet banking when a person is qualified. This is in line with the research by Howcroft *et al.* (2002) who argued that the demographic characteristics that explain usual Internet banking customers include young, affluent and highly educated. The respondents those who have lesser qualification have to be taught about the products, services and its benefits. Also they have to be taught about the possibilities of shortcoming and how to solve the shortcomings.

Table 6: χ^2-test for relationship between occupation and adoption of Internet banking

Internet banking users	Values
Occupation	
Private organization employee	137 (59.30%)
Government employee	53 (22.96%)
Business	29 (12.55%)
House wife	12 (05.19%)
Total	231 (100%)
Chi-square value	11.308
p-value	0.010*

Table 7: χ^2-test for relationship between annual income and adoption of Internet banking

Internet banking users	Values
Annual income (Rs.)	
Up to 100000	00 (00.00)
100000-300000	91 (39.39%)
300000-500000	95 (41.12%)
Above 500000	45 (19.49%)
Total	231 (100%)
Chi-square value	69.228
p-value	0.000**

Role of occupation and adoption of Internet banking: The 'p' value is "0.010" (Table 6). The 'p' value is in between "0.01" and "0.05" (Table 6). It shows that there exists a relationship between occupation and adoption of Internet banking. The maximum percentage of respondents (59.30%) who are working in private organization have adopted Internet banking. Less percentage of business people (12.55%) and housewives (5.19%) have adopted Internet banking. It shows that preference of Internet banking depends upon their job profile. This has been supported by Howcroft *et al.* (2002).

Role of income and adoption of Internet banking: The 'p' value is "0.000". The 'p' value is <0.01 (Table 7). It shows that there exists a relationship between annual income and adoption of Internet banking. The maximum percentage of

respondents (41.12%) belong to the annual income category of "Rs. 300001-500000" have adopted Internet banking. It shows that the respondents belong to average and above average annual income group prefer Internet banking. The results are consistent with Sakkthivel (2006)'s. The benefits of Internet banking to be taught to the respondents irrespective of the annual income.

CONCLUSION

The role of demographical characteristics of the respondents of India bank on adoption of Internet banking is identified. It is concluded that the gender, educational qualification, occupation and annual income plays a major role on adoption of Internet banking of Indian bank in Chennai. The age and marital status of respondents have no role on adoption of Internet banking of Indian bank in Chennai.

REFERENCES

Awamleh, R. and C. Fernandes, 2006. Diffusion of Internet banking amongst educated consumers in a high income non-OECD country. J. Internet Banking Commerce, Vol. 11.

Christopher, G., C. Mike, L. Visit and W. Amy, 2006. A logit analysis of electronic banking in New Zealand. Int. J. Bank Market., 24: 360-383.

Damar, E. and L. Hunnicutt, 2010. Credit union membership and use of Internet banking technology. BE J. Econ. Anal. Policy, Vol. 10.

Flynn, L.R. and R.E. Goldsmith, 1993. Application of the personal involvement inventory in marketing. Psychol. Marketing, 10: 357-366.

Hernandez-Murillo, R. and D. Roisman, 2004. Point and click or mortar and brick? a look at Internet banking in the eighth district. Reg. Econ.,

Hong, Y.H., B.H. Teh, G. Vinayan, C.H. Soh, N. Khan and T. San Ong, 2013. Investigating the factors influence adoption of Internet banking in Malaysia: Adopters perspective. Int. J. Busin. Manage., 8: 21-31.

Howcroft, B., R. Hamilton and P. Hewer, 2002. Consumer attitude and the usage and adoption of Home-based banking in the United Kingdom. Int. J. Bank Market., 20: 111-121.

Kotler, P., 1982. Marketing for Non-Profit Organizations. 1st Edn., Prentice-Hall, Englewood Cliffs, NJ., pp: 1-528.

Mattila, A. and M. Mattila, 2005. How perceived security appears in the commercialisation of Internet banking. Int. J. Financial Ser. Manage., 1: 89-101.

Ong, T.S., Y.H. Hong, B.H. Teh, P.C. Soh and C.P. Tan, 2014. Factors that affect the adoption of Internet banking in Malaysia. Int. Bus. Manage., 8: 55-63.

Sakkthivel, A.M., 2006. Impact of demographics on the consumption of different services online in India. J. Internet Banking Commerce, Vol. 11.