FACTORS AFFECTING CONSUMER ATTITUDE TOWARDS INTERNET BANKING IN INDIA

Neetu Jain*

Dr. Pooja Malhotra**

ABSTRACT

The objective of the present study is to find out the factors affecting adoption of Internet banking in India. The data for this study is based upon a survey of bank customers using a convenience sampling technique with the aid of a structured self-administered questionnaire. The survey was conducted during the period of April 2012. Chi square test and Principal component factor analysis is employed to explore the factors affecting the adoption of Internet banking in India. The results show that the demographic factors particularly age; qualification, profession, income and no. of banks dealing with are the significant variables affecting usage of internet banking. Factor analysis results show that prior computer experience, prior technology experience, personal banking experience, and reference group influence, affect attitude towards online banking as well as online banking usage. The purpose of this study is to help fill significant gaps in knowledge about the inhibitors of Internet banking in India. The findings of this study are expected to be of great use to the bank marketers. An understanding of the factors identified in this study allows bank managers to direct efforts and resources in the most effective and efficient way to increase bank business in the long run and encourage their bank customers' to adopt Internet banking.

*Research Scholar, CMJ University, Shillong, Meghalaya

** Assistant professor, Guru Gobind Singh Indraprastha University, New Delhi

1. INTRODUCTION

Internet is increasingly used by banks as a channel for receiving instructions and delivering their products and services to their customers. The motivation for this study arose out of the rapid development of Internet banking in India. Since 1997, after the launch of the first Internet based banking service, the number of Internet bankers has grown at an enormous pace. An inhibiting factor is concern whether there is demand for such services, based on concerns about levels of computer ownership, Internet usage and consumer acceptance. Although the number of users of the Internet has increased significantly over the past decade, only a small fraction of those users have made actual purchases over the Internet. The failure of the Internet as a retail distribution channel has been attributed to the lack of trust consumers have in the electronic channel and in the Web merchants.

In broad terms, the present study aims, as the title " Factors affecting consumer attitude towards Internet Banking in India" indicates, to explore the world of electronic banking through the eyes of the consumer, and by so doing seeks to increase the understanding of consumer attitude formation and behaviour. The identification of personal characteristics related to the adoption of internet banking is critical for market targeting and can help banks in product design and in formulating campaigns that will encourage the adoption of the service. In this study these are related to adoption intention, which is defined as an individual decision to try Internet banking service within a specified period of time.

The primary objective of this paper is to determine those factors that influence on the formation of attitude towards Internet banking. This paper also looks at individual differences in online banking in an effort to better understand the adoption of remote banking channels. While this paper focuses on attitude development in particular, it also investigates individual differences in demographics and perceptions. Thus, the Theory of Reasoned Action (TRA) (Ajzen and Fishbein, 1980) and the Technology Acceptance Model (TAM) (Davis *et al.*, 1989) provide the theoretical foundation for the development of our model. While the TRA explains consumer behaviour on the basis of attitudes and reference group influence, the TAM posits that perceived usefulness and perceived ease of use determine a person's behaviour. This paper begins with a discussion of the factors that seem to form and affect consumer attitudes and behaviour concerning Internet banking. The latter part of the paper comprises the model on online banking behaviour and its analysis followed by the discussion of the results.

2. LITERATURE REVIEW

The current study explores how different factors influence attitude towards Internet banking and the use of Internet banking in India. Attitudes are said to develop over time through a learning process affected by reference group influences, past experience and personality (Assael, 1981, p. 183). The next sections outline these different components in detail.

Individual differences in consumer behaviour have been theorized and found to be associated with the acceptance of new information technology, such as Internet banking (e.g. Zmud, 1979; Nelson, 1990). Assael (1981, p. 234), for instance, argues that consumer behaviour should be studied through demographics, beliefs and attitudes. In this paper, one central point under scrutiny will be demographic characteristics, because they are said to be easier to measure and study due to their objective, standardized nature. Our review of the literature concerning a typical online banking user revealed that a typical user can be classified as a highly educated, relatively young and wealthy person with good knowledge of computers and, especially, the Internet. It has been widely recognized that demographic factors have a great impact on consumer attitudes and behaviour regarding online bankin (Daniel, 1999; Sathye, 1999; Jayawardhena and Foley, 2000; Mattila, 2001; Karjaluoto, 2002; Karjaluoto *et al.*, 2002). Moreover, a typical Internet banking user has been identified as a high involvement person belonging to the upper middle class or in parts as a member of the career-orientated upper middle class (Jayawardhena and Foley, 2000).

The technology acceptance literature suggests a strong relationship between age and the acceptance of new technologies (e.g. Gattiker, 1992; Harrison and Rainer, 1992). Older consumers are found to have problem with new technologies and, hence, are expected to have negative attitudes towards innovations. Trocchia and Janda (2000), for instance, find that many older consumers have a more negative attitude to change. However, they argue that a person's overall perception of technology has a greater effect than age. Similarly, JaÈrvenpaÈaÈ and Todd (1997) found that age had a relatively weak impact on attitude and intention towards the acceptance of new technology.

The effect of gender has been identified as important in Internet business. The Internet was previously seen as male dominated (e.g. Burstein and Kline, 1995). Jayawardhena and Foley (2000) suggest that such a highly educated and wealthy segment represents a profitable and less risky customer base for several reasons. Most importantly, they deal with larger sums of money, and thus, have more purchasing power in buying banks' products and services such as investments and insurances.

Literature s uggests t hat pr ior e xperience of technologies, e specially p rior e xperience of computers, impacts on consumer beliefs and attitudes towards related systems and technology (Arndt *et al*., 1985; D eLone, 1988; Levin a nd G ordon, 1989; I gbaria *et al*., 1995) . These studies suggest not only that prior experience is the essential factor underlying attitudes, but also t hat pr ior e xperience of computers ha s gr eater ef fect on attitudes than de mographic characteristics (Levin and Gordon, 1989). Similarly, Au and Enderwick (2000) continue that the more experience a consumer has about technology, the better understanding the consumer will ha ve a bout new t echnologies. T hus, a be tter understanding of t echnology a llows t he consumer to better appreciate the added value brought by new technological improvements. In this pa per, while p rior experience of t echnology r efers t o consumers' expe riences associated with the use of different technologies such as ATMs, automates in general, electric IDs, a nd teletext, prior computer experience i s associated with the us e of PCs, the Internet, and e-mail, to mention a few.

Fishbein and Ajzen (1975, p. 14) , for example, argue that the more positive a person's past experience about an object i s, the more pos itive be liefs he or s he w ill hol d about i t. A s a result, the more positive beliefs a person has, the more positive attitude this will create. It has been argued t hat i n t oday's computerized information t echnology w orld consumers ha ve become more aw are of computers a nd r elated technologies, a re more educ ated and ha ve a higher spending as well as purchasing power. Therefore, information technology skills have also emerged as a priority (Zineldin, 2000). This trend predicts the emergence of new Internet technologies. T rocchia and J anda (2000) argue that the tendency of c onsumers to accept or reject c hange di stinguishes Internet us ers f rom non -users. Specifically, non-users' negative experiences of technology seem to have a great impact on their attitude towards technological developments in general.

It ha s be en w idely stated that pe rsonal experience af fects a pe rson's be haviour (see, for example, Fishbein and Ajzen, 1975, p. 10; Peter and Olson, 1990, p. 141) . According to the consumer b ehaviour l iterature, be liefs and attitudes ar e pri ncipally created on the basis of a person's p ersonal expe rience of a given obj ect. From our p oint of vi ew, pe rsonal ba nking experience r efers to cus tomer sat isfaction/dissatisfaction of t he de livery channel in use, on the one ha nd, a nd i ntention t o c hange banking be haviour, on t he ot her. P ersonal banking experience i mpacts on attitudes an d behaviour i n s everal w ays. F or i nstance, dissatisfied consumers are m ore likely to change to electronic cha nnels than satisfied. Actually, one o f the most important reasons underlying the rapid di ffusion of e lectronic delivery channels in India has been the customer dissatisfaction with branch banking. Not only queuing but also

poor customer service have been impacting the consumer movement from branch banking to electronic delivery.

Consumers with positive past experience of banking are more likely to keep up with their current banking channel. For instance, online banking users are more satisfied with their banking now than at the time of branch banking. To sum it up, satisfied consumers seem to hold more positive beliefs and have more positive attitudes towards online banking and, thus, are more likely to use Internet banking as their primary banking delivery channel. It is vital for banks to create a positive banking experience for their customers in order to guarantee satisfaction (see for example, Foreman, 2000). Another important aspect is that consumers tend to resist change, referring to the tendency to make a habit of behaviour. In this sense, the importance of personal banking experience increases.

Consumer behaviour literature suggests that reference group often impacts on consumer behaviour (Fishbein and Ajzen, 1975, p. 495; Kotler *et al.*, 1999, p. 452). However, banking is claimed to be extremely personal in the sense that it is seen as independent from other people's example or influence. Although family influences on the adoption of online banking tend to be strong, the impact of other reference groups is relatively an uncharted territory. Prior studies have identified two competing influences on the relationship between reference group and behaviour: conformity and dissension (Snyder and Fromkin, 1977; Baumeister, 1982; Guerin, 1986; Simonson and Nowlis, 2000). The former concerns approval and the avoidance of criticism and rejection by others. In other words, people try to conform to a subjective norm. However, as Simonson and Nowlis (2000) note, in promoting conformity, ``social interactions may stimulate dissension from norms, which fulfill a positive function in one's self- and public image.'' The latter idea concerns the consumer's independence of subjective norms, i.e. it reflects the consumer's strong sense of self-respect and autonomy. In addition, a consumer can be considered unique, special, and separable from the masses (Snyder, 1992). Similarly, as Bagozzi (2000) has shown with empirical data, social factors and forces are strong determinants of consumer behaviour. Taylor (1991, p. 55), for example, argues that most people try to surround themselves with people and things that are consistent with their own identities. In this paper, the term reference group is seen as an extensive construct, referring to all the people who influence on consumer behaviour.

The attitude theory suggests that the more favourable attitude a person has towards a given product/service, the more likely that person is to buy or use that product/service. The overall attitude towards an object (Ao) is expected to be related to behaviours towards the object (Ajzen and Fishbein, 1980). We hypothesize that consumer attitude towards online banking

explains most literally consumers' banking behaviour. In other words, attitude towards online banking is expected to divide consumers into nonusers, light users and heavy users of online banking. The theoretical background presented different factors that impact on attitude and behaviour towards online banking. The purpose of the discussion was to pave the way to better understand the formation of attitude towards online banking and its relationship to usage. The next part of the paper presents the findings of the survey data concerning these issues.

3. RESEARCH METHODOLOGY

The data were collected by means of a questionnaire from 1160 individual bank customers in India. Respondents were chosen from ICICI and HDFC Bank's customer database throughout north India that includes regions of Haryana, Punjab, Himachal Pradesh and Delhi. The response rate was 38.9 percent, which was well above our expectations. The items used to measure the different factors were constructed on the basis of the literature. Our sample consisted of three equal-sized consumer segments that were selected in terms of their online banking experience. The segments were nonusers of the service, new users (had the required user ID and password list; not necessarily in use), and old users (longstanding users; had used online banking services since 1997).

As suggested in the literature (see, for example, Fishbein and Ajzen, 1975), beliefs and attitudes were measured using Likert scales (Likert, 1932) and semantic differentials (Osgood *et al.*, 1957). The data were analyzed using factor analysis and correlations (SPSS 18).

4. RESULTS

Demographic profile of the respondents is presented in Table I. As can be seen, 51.4 percent of the respondents were male. Most of the respondents were aged 31-35. Respondents' primary mode of payment varied relatively widely. Most of the respondents (39.8 percent) paid their bills via the Internet. Payment services were used by 17.0 percent, ATMs by 15.0 percent, and 14.7 percent used direct debit. Only 12.1 percent paid over-the-counter, and telephone banking was used even less by only 3.1 percent. Consumers' technology access is displayed in Table 2. Close to 97 percent of the respondents did not use a phone in banking. Of the 3.2 percent to do so, 25 percent used WAP, 11.1 percent SMS, and 63.8 percent used a phone to call the bank. A total of 63.5 percent of the respondents had a computer, 83.0 percent at home and 40.8 percent at work. A total of 57.8 percent of the respondents had an Internet connection. The Internet was mostly accessed from home.

Table 1: Profile of the respondents

		Online banking		
		Users	**Non-Users**	**Total**
Age	below 25 years old	175	110	285
	25-30 years old	225	60	285
	31-35 years old	290	80	370
	36-40 years old	70	80	150
	41-45 years old	20	10	30
	46 and above	40	0	40
Total		**820**	**340**	**1160**
Gender	Male	418	178	596
	Female	402	162	564
Total		**820**	**340**	**1160**
Qualification	Sr secondary	0	16	16
	Diploma	20	0	20
	Bachelor of degree	60	98	158
	Post graduation	630	210	840
	Doctorate	110	16	126
Total		**820**	**340**	**1160**
Profession	Private sector Employee	578	126	704
	Public sector Employee	20	39	59
	Self Employed	222	175	397
Total		**820**	**340**	**1160**

Table 2

Technology usage

	Percent
Do not use mobile phone in banking (%)	96.8
Uses mobile phone in banking (%)	3.2
WAP	25.0
Text message	11.1
Call-center	63.8
Standard deviation	0.45
No computer (%)	36.5
Has a computer (%)	63.5
At home	83.0
At work	40.8
Other	4.6
Standard deviation	0.81
With no Internet access (%)	42.2
With Internet access	57.8
Accessing Internet from:	
Home	51.3
Office	45.5
Other	3.2
Standard deviation	0.85

Factor analysis

A factor analysis was conducted in order to develop factors that help in explaining the role of experience and reference group in online banking. As suggested by Hair *et al.* (1995), four factors were identified for the factor analysis using the eigenvalue criteria that suggest extracting factors with an eigenvalue of greater than 1.0. In conducting the factor analysis we followed Hair *et al.* (1995) and Alfansi and Sargeant (2000). The rotated factor matrix is displayed in Table 3.

Table 3 Factor analysis of Internet banking adoption

Factors

Statement	Prior computer experience	Prior Technology experience	Personal banking experience	Reference group influence
Internet	.857			
E-mail	.847			
Computer	.795			
E-payment	.498			
Mobile phones and services	.439			
Automates		.766		
Electric ID card		.547		
ATM		.529		
Teletext		.448		
Liking of improvements		.353		
Speed			.684	
Easy of use			.629	
Trustworthiness and security			.440	
Free from time and place			.418	
Bank's personnel				.652
Referents' example				.348
Group behaviour				.312
Initial eigenvalues	4.909	1.784	1.635	1.139

Total variance explained % 28.876 10.492 9.617 6.697

Notes: Extraction method: Principal Axis Factoring

Rotation Method: Varimax with Kaiser Normalization

The f our f actors identified explained 55.7 percent of t he t otal v ariance. T he e xtraction method us ed w as pr incipal a xis f actoring with V arimax r otation. T his m ethod h as been widely accepted as a r eliable m ethod of factor ana lysis (see, for exa mple, Alexander and Colgate, 20 00). I n our s urvey, t he K aiser- Meyer-Olkin (KMO) m easure of sam pling adequacy s core (0.853) was well above t he recommended 0.5 l evel (Malhotra, 1999). Moreover, t he B artlett's t est of sphe ricity indicated that there w as adequate co rrelation among the chosen variables ($X^2_{(136)}$= 3,452.6, $p < 0.01$).

The f irst f actor, prior c omputer experience, e xhibited he avy l oadings f or five variables pertaining t o t he c onsumer perception of c omputer-related technologies. We e xpected non- users to score low and old users to score high on this factor. Thus, as we show in our results, this factor had a strong relationship with attitude and behaviour. Factor two, prior technology experience exhibits l oadings f or f ive va riables concerning c onsumer pe rceptions of technology in ge neral. The third factor, personal banking experience, exhibits high loadings for f our va riables c oncerning e ase of use an d speed. The l ast f actor, reference group influence, exhibits high loadings for three variables pertaining to the consumer reaction of the surrounding subjective nor m. On the ba sis of the literature r eview an d this f actor ana lysis suggests t hat f our factors: pr ior c omputer e xperience, prior technology e xperience, p ersonal banking experience, and reference group influence, affect attitude towards online banking as well as online banking usage.

5. CONCLUSIONS

This s tudy showed t hat pr ior experience of computers and t echnology, as w ell as attitude towards c omputers, i nfluence both attitude towards onl ine ba nking a nd a ctual behaviour. Specifically, pr ior c omputer experience ha d a s ignificant i mpact on onl ine ba nking us age. Thus, it is v ital for banks to provide e ducation targeted not only t o gui de using the Internet but also to provide more extensive education in the whole field regarding computers. Hence, a cons umer with a good know ledge of c omputers i n general is m ore li kely to e ngage in a more active online banking usage compared with having only valid knowledge of one single online s ervice (banking). I n pr oviding onl ine banking services, Indian banks rely m uch on customer e ducation i n b ank br anches. Nowadays i t is h ard t o f ind a b ranch in India not offering free onl ine ba nking access s upplied with personal education. From our pe rspective this kind of education system i s not w idely used abroad. T o sum it up, the better knowledge of c omputers customers ha ve, t he m ore onl ine b anking users t his c reates. The r esults of the study also pr opose t hat demographic f actors impact he avily onl ine banking behaviour. I n

addition, positive personal banking experience seemed to have an effect on both attitude and usage. T his i s t o s ay t ha satisfied c ustomers t end t o ke ep up w ith t heir current de livery channel. F urthermore, t he results i ndicate t hat r eferents w ould have a negative i mpact on online banking usage.

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