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**THE CHALLENGES OF TECHNICAL  
INFRASTRUCTURE IN E- BANKING**

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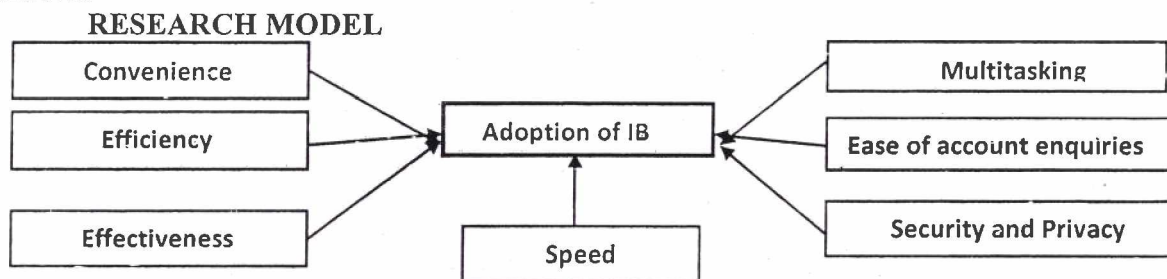
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**ABSTRACT**

The internet is transforming the banking and financial industry in terms of the nature of core products and services and the way these are packaged, proposed, delivered and consumed (Sathye, 1999). This technological change has impacted many industries but one of the most impacted is the banking industry. To face the new challenge from competition, it is essential that banks have to be more efficient and that they have to explore new distribution channel which is less costly compared to the traditional brick and mortar bank. The current paper is an attempt to perceive the customers views on the adoption and non adoption of using internet banking (IB). The study found that the main hindrance in the adoption of IB is the security concerns that the consumers have. With the proper safety and security measures and educating the people on the importance of IB in its speedy delivery, IB will become the delivery channel of banking services.

### Introduction

The internet is transforming the banking and financial industry in terms of the nature of core products and services and the way these are packaged, proposed, delivered and consumed (Sathye, 1999). The last several years have seen rapid technological changes among which is the advent of electronic commerce, or the exchange of products and payments via telecommunication systems (Kalakota and Whinston, 1997). This technological change has impacted many industries but one of the most impacted is the banking industry. To face the new challenge from competition, it is essential that banks have to be more efficient and that they have to explore new distribution channel which is less costly compared to the traditional brick and mortar bank. The traditional delivery channels include the brick and mortar branch office networks, ATMs, tele banking and desk top banking. The new push opened the way for Internet Banking (IB) with significantly lower cost structure than tradition delivery channels (Sathye, 1999). Internet banks can operate at an expense 15-20 percent compared to 50-60 percent of the traditional average bank (Booz Allen Hamilton, 1997). The online banking service has become very effective, to help their customers manage their assets more effectively. Subsequently, consumers' adaptation of internet banking (IB) has received significant research and practitioners' attention (Polatoglu and Ekin, 2001). The current paper is an attempt to perceive the customers views on the adoption and non adoption of using internet banking. Rogers (1983) has suggested five important characteristics of an innovation that influence its adoption. These are relative advantage, compatibility, complexity, observability and trailability. This study has taken seven factors which will lead to consumers' adoption of IB. The research model is as follows.



### Objectives of the study:

- To analyse the socio economic and demographic conditions of the adopters and non adopters of IB
- To find out the reasons for the adoption of IB
- To estimate the hindrances in the adoption of IB

### Methodology

The study was carried out through online. A structured questionnaire was sent to about 75 respondents, whom the researcher knows, in July 2011. Thus the technique used was convenience non probability sampling technique. Only 50 filled in questionnaires were received by the researcher in the month of August 2011. The data collected were analysed and the findings are as given below. Among the 50 questionnaires received it was learnt that 38 are using IB and 12 not using IB.

## Demographic Profile:

**TABLE 1**  
**RESPONDENTS SOCIO ECONOMIC AND DEMOGRAPHIC PROFILE**

VARIABLE	CATEGORIES	(in %)	
		USER (N1=38)	NON-USER(N2=12)
Gender	Male	60.53	50
	Female	39.47	50
Age	<20 years	0	16.67
	21-30 years	31.58	25
	31-40 years	39.47	25
	>40 years	28.95	33.33
Education	<Hr. Secondary	0	25
	Hr,Secondary	2.63	0
	Diploma	0	8.33
	Graduates	94.74	66.67
	Students	2.63	0
Occupation	White collar jobs	65.80	50
	Technicians	7.89	50
	Business	23.68	0
	Students	2.63	0
Family Monthly income (Rs)	<Rs 10,000	18.42	25
	Rs.10,000-Rs. 25,000	28.95	25
	Rs.25,000-Rs.50,000	42.11	25
	>Rs.50,000	10.52	25
Marital status	Single	78.95	66.67
	Married	21.05	33.33

Source:Primary data

Among the IB users 60.53 percent are males and about 70 percent are in the age group of 21 to 40 years; and almost all of them had at least higher secondary level education. Occupation wise analysis reveals that about 65.80 percent are in white collar jobs either as professionals or as professors in higher educational institutions. About 24 percent are in banking sector. The monthly family income of about 70 percent of the respondents lies in the range of Rs. 25,000 to Rs. 50,000. Among the non adopters of IB, 50 percent are males. About 66 percent of the non adopters are less than 40 years of age, having completed at least under graduation. While 50 percent are technicians the other 50 percent are in white collar jobs.

The respondents were asked to give their views on the technical infrastructure on IB in a 5 point likert scale, as 'strongly agree', 'agree', 'neutral', 'disagree' and 'strongly disagree'. The percentage of the respondents' perception on the technological infrastructure of IB is as given below in Table 2.

Table 2: See last page

It can be seen from the result that for about 70 to 80 percent of the users of IB, all the chosen seven factors are responsible for the penetration of IB among the users. As the non users also reported alike, it was decided to find out the draw backs in the usage of IB and the findings are also reported in the table 2. Online fraud is the major concerning factor among the users and non users. The non users stated that the major draw backs of using IB are on line fraud (91.67 percent), lack of knowledge (83.33 percent), unfriendly websites (83.34 percent) and wrong transactions (66.67 percent).the results show that awareness must be created among the masses on the usage of IB and at the same time providing the security as desired by the users. In the long run, in the technology driven globalised world, efforts have to be created to strengthen the infrastructure in the IB, which is going to be the need of the hour.

### Conclusion

Internet banking is relatively a recent phenomenon which is going to stay whether one likes it or not. The main hindrance in the adoption of IB is the security concerns that the consumers have. With the proper safety and security measures and educating the people on the importance of IB in its speedy delivery, IB will become the delivery channel of banking services.

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TABLE 2: PERCEPTION ON THE TECHNOLOGICAL INFRASTRUCTURE OF IB

Factors	Adopters					Non adopters				
	Stongly agree	Agree	Neutral	Disagree	Strongly disagree	Stongly agree	Agree	Neutral	Disagree	Strongly disagree
Convenience	55.26	39.47	5.26	0	0	50	33.33	16.67	0	0
Efficiency	36.84	52.63	7.89	2.63	0	33.33	50	16.67	0	0
Effectiveness	34.21	50	13.16	2.63	0	33.33	25	41.67	0	0
Speed	34.21	50	13.16	2.63	0	41.67	25	33.33	0	0
Multitasking	34.21	42.11	23.68	0	0	41.67	33.33	25	0	0
Ease of account enquires	39.47	50	10.53	0	0	33.33	41.67	25	0	0
Security and privacy	26.32	39.47	31.58	0	0	25	50	25	0	0
<b>DRAW BACKS IN THE USAGE OF IB</b>										
Online fraud	28.95	50	15.79	2.63	2.63	66.67	25	8.33	0	0
Lack of knowledge	13.16	60.53	18.42	5.26	2.63	33.33	50	16.67	0	0
Unfriendly websites	10.53	55.26	21.05	10.53	2.63	16.67	66.67	16.67	0	0
Wrong transaction	10.53	52.63	26.32	7.89	2.63	16.67	50	33.33	0	0