

# **An Empirical Study on Customers' Perception towards On-line Banking adoption in Bangalore city<sup>1</sup>**

## **Abstract**

The growing popularity of Internet banking has also brought increasing anxiety over whether something as private and personal as a bank account can be fully protected in the relatively unregulated and unpoliced world of the internet.

A market survey was carried out in specific areas of Bangalore city.

The primary data was collected with the help of a structured questionnaire administered among 50 respondents from Bangalore city. The statistical tools applied on the data were,

- Chi-square and Factor analysis to identify the important factors affecting on-line banking.

The findings were:

**'Convenience'** and **'saving time'** were the major factor to adopt on-line banking.

**'Security'** and **'privacy'** were two major concerns of customers towards not adopting on-line banking services on a regular basis.

Banks have to work out a model of safety and security of the customers' information and the market penetration in the days to come.

Key words: On-line banking, Technology Acceptance Model, Information privacy, Security

## **Introduction**

The Banking industry in India has undergone revolutionary changes due to liberalization and globalization measures initiated since 1991. These measures, along with rapid growth in the Indian economy have transformed the banking sector in India, with strong contribution from government, private and foreign banks. Deregulation, entry of private players, increased competition, technological blend and attitudinal transformation among bankers have made them sensitive to customers need and satisfaction.

Since mid-1990's, there has been a fundamental shift in banking delivery channels towards using self-service channels such as on-line banking channel. Banks have traditionally been in the forefront of harnessing technology to improve their products, services, and efficiency. If we look into the modern age of banking, online banking or net banking made things much easier for the people and saves a lot of time. Many banks have begun to offer customers the option of online banking, a practice that has benefits for both parties. The convenience of being able to access accounts at any time, as well as the ability to perform transactions without visiting a local branch, draw many people

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to sign up. It seems like an obvious choice to leave the hassles of traditional money management behind in exchange for this high-tech alternative. Among the major changes, technologies have aided and upscaled the banking operations to greater heights.

### **1.1: Online-Banking Perceptions- Theoretical Framework:**

#### **Online Banking**

Online banking is an internal portal, through which customers can use different kinds of banking services ranging from bill payment to making investments. Online banking allows people access all of their account through a secure bank-created website. Depending on the services chosen, a customer may simply be able to view the day-to-day activity of every account they have with a bank. Another convenient service lets people transfer funds, either between accounts or from electronic transactions. With the popularity of PC's easy access to Internet (WWW), Internet is increasingly used by banks as a channel for receiving instructions and delivering their products and services to their customers. This form of banking is generally referred to as Internet banking, although the range of products and services offered by different banks vary widely both in their content and sophistication. One of the biggest attraction of Internet as an electronic medium is its openness and freedom. It is a public domain and there is no restriction on who can use it as long as one adheres to its technical parameters. This has also given rise to concerns over the security of data and information transfer and privacy.

Broadly, the levels of banking services offered through Internet can be categorized into three types:

- Disseminate information.
- Simple transactional websites
- Fully transactional websites

Some of the distinctive features of Internet banking are –

It removes the traditional geographical barriers as it could reach out to customers of different countries / legal jurisdiction. This has raised the question of jurisdiction of law / supervisory system to which such transactions should be subjected.

It has added new dimensions to different kinds of risk traditionally associated with banking, heightening some of them, and throwing new risk control challenges.

Security of banking transactions, validity of electronic contract, customers' privacy, etc, which have all along been concerns of both bankers and supervisors have assumed different dimensions given that Internet is a public domain, not subject to control by any single authority or group of users.

It poses a strategic risk of loss of business, to those banks who do not respond in time to this new technology - being the efficient and cost effective delivery mechanism of banking services.

A new form of competition has emerging both from the existing players and new players of the market who are not strictly banks.

## **2. THE PROS AND CONS OF ONLINE BANKING**

Today, people want to be in a position to better manage their own personal finances. They want access to easy-to-use tools that can help (preferably free ones) and ones that don't make them doubt their own abilities or competence. It is clear that online banking usage and adoption is growing, it is however less obvious how consumers view their current experience when interacting. However, there are potential problems associated with banking over the Internet of which customers may not be aware. Consumers need to weigh the advantages and disadvantages of online banking before signing up. Let's begin with the pros of online banking. The foremost advantage of online banking is that it is convenient for customers. Online banking services have made their way into most homes and it allows people to perform transactions, pay bills and check balances 24 hours a day.

Online banking is fast, efficient and effective. It can be for managing your savings accounts, credit cards, fixed deposit, insurance etc. The majority of banking sites are also compatible with programs like Quicken and Microsoft Money, so as to allow for more effective management of assets. In addition, internet banking is a cost-effective delivery channel for financial institutions.

Online banking saves time and paper. For consumers, the electronic evolution could make banking and bill-paying as easy as clicking a mouse. In fact, for many consumers the bank of the future may not be a building at all, but a personal computer. For bankers and other creditors, it holds the potential of reducing labour and maintenance cost and more importantly, opening new markets.

### **Cons of online banking.**

Although the benefits of online banking are undeniable, there are some inconveniences and concern which customers should be aware. The main issue for most people is that of trust. Many people have difficulty on the security of online transactions, fearing the very real possibility of identity theft.

Online banking sites can also take a while to start up and can be difficult to learn at first. Every customer must be aware of the security issues and protect their details from the hackers.

Atul prakash, a professor in the Department of Electrical Engineering and Computer Science and doctoral students Laura Falk and Kevin Borders examined the Web sites of 214 financial institutions in 2006. According to their study at least one design flaw that could make customers vulnerable to cyber thieves after their money or even their identity. The flaws include placing log-in boxes and contact information on insecure web pages as well as

failing to keep users on the site they initially visited. The flaws leave cracks in security that hackers could exploit to gain access to private information and accounts.

While tons of effort and money has been thrown into improving the usability, functionality and general user experience of online banking services, the progress has been very slow in recent years. Clearly, the choice of whether or not to bank online depends on many variables. It simplifies life for some people and for them it is frankly a better way to bank. For others it may be a little more complex and downright intimidating. In light of these two perceptions, more and more banks are offering online banking as a viable option for their customers.

## **2. Need for the study:**

One of the most important developments in banking sector has been the growth of the financial industry over the past two decades. The benefits of the financial industry can be seen in the form of large scale industrial developments, increased employment opportunities, higher turnover as well as revenue generation to the government and also increase in export of goods and services.

Banking industry in India has undergone a process of evolution with the passage of time. To count or to depend on a bank merely by the function it is supposed to perform would be insufficient in the world that we live today.

Investments play a vital role on the part of the customers. A real investor does not simply throw his or her money in a random investment; he or she performs thorough analysis and commits capital only when there is a reasonable expectation of profit. Hence they both are interdependent, i.e. it all depends upon the customer. "Customer knows what to expect". Today banks have relationship management approaches with their clients.

Banks are offering more customized solutions to their clients. The need of the hour is not only to introduce more value added products for which the customers are willing to pay here but also to innovate and enter new segments like small business and periodical finance.

Everything revolves around the customer and banks via with their innovative and quality products to suit their clients. Today the bottom line for any customer is convenience, understanding and evaluating the customers perception on the service and products of a bank has without doubt becomes a need, which propels the body to structure itself for better performance and service.

Thus delivering high quality service to clients is just as important as delivering performance that meets or exceeds their expectations. It is in this context that a study is necessary to know about awareness levels on the service provided by the public and private sector banks and the customer perception towards the banks.

## **3: LITERATURE REVIEW: ONLINE BANKING ACCEPTANCE STUDIES**

Online banking acceptance has gained special attention in academic studies during the past five years as, for instance, banking journals have devoted special issues on the topic.(e.g. Karjaluoto et al.,2002; Waite & Harrison, 2002; Bradley & Stewart, 2003; Gerrard & Cunningham, 2003; Mukherjee & Nath, 2003). We can find two

fundamental reasons underlying online banking development and diffusion. First, banks get notable cost saving by offering online banking services. It has been proved that online banking channel is the cheapest delivery channel for banking products once established. (Sathye, 1999; Robinson, 2000; Giggio, 2002). Second, banks have reduced their branch networks and downsized the number of service staff, which have paved the way to self-service channels as quite many customer felt that branch banking took too much time. Cost saving and freedom from place have been found the main reasons underlying online banking acceptance. (Polatoglu & Ekin, 2001; Black et al., 2002; Howcroft et al., 2002).

Several studies indicate that online bankers are the most profitable and wealthiest segment to banks (Mols, 1998; Robinson, 2000; Sheshunoff, 2000). On this basis, no bank today can underestimate the power of the online channel. Laxman (1999) for instance estimates that in the near future the online channel reinforces its importance especially in the countryside, where banks have closed many branches. However, there is no supporting evidence on this regional issue. Without the possibility of managing banking affairs directly from home or office, customers easily perceive troubles in managing their financial affairs such as paying bills.

As noted, on line banking offers many benefits to banks as well as customers. However, in global terms the majority of private bankers are still not using online banking channel. There exist multiple reasons for this. To start with, customers need to have an access to the Internet in order to utilize the service. Furthermore, new online users need first to learn how to use the service. (Mols et al., 1999). Second, nonusers often complain that online banking has no social dimensions, i.e. you are not served in the way you are in a face-to-face situation at branches (Mattila et al., 2003). Third, customers have been afraid of security issues. (Sathye, 1999; Hamlet & Strube, 2000; Howcroft et al., 2002).

### **On line banking acceptance in the light of Technology Acceptance Model (TAM).**

It has been noted that users' attitudes towards and acceptance of a new information system have a critical impact on successful information system adoption. (Davis, 1989; Venkatesh & Davis, 1996; Succi & Walter, 1999). If users are not willing to accept the information system, it will not bring full benefits to the organization. (Davis, 1993; Davis & Venkatesh 1996). The more accepting of a new information system the users are, the more willing they are to make changes in their practices and use their time and efforts to actually start using the new information system.

One of the most utilized model in studying information system acceptance is the Technology Acceptance Model (TAM) (Davis et al., 1989; Mathieson, 1991; Davis & Venkatesh, 1996; Gefen & Straub, 2000; Al-Gahtani, 2001) in which system use (actual behaviour) is determined by perceived usefulness (PU) and perceived ease of use (PEOU) relating to the attitude toward use that relates to intention and finally to behaviour. The primary goal of TAM is to predict information system acceptance and diagnose design problems before users have experience with new system. TAM suggest that when users encounter new IS technologies the two main factors influence how and when they will use the system. These two main constructs of TAM are perceived usefulness (PU) and perceived ease of use (PEOU).

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). PEOU is defined as the degree to which the prospective user expects that potential system to be free of effort (Davis et al., 1989). According to Dehone & Mclean (1992) system use as the dependant variable is acceptable, if system usage is not compulsory. Although the TAM has been tested widely with different samples in different situations and proved to be valid and reliable model explaining information system acceptance and use (Mathieson, 1991; Davis & Venkatesh, 1996), many extensions to the original TAM have been proposed. (E.g. Venkatesh & Speier; Venkatesh & Davis, 2000). TAM proposes these two particular constructs, that are of primary significance for IS/IT acceptance, perceived usefulness (PU) and perceived ease of use (PEOU) effect user’s attitude towards using the information system. Attitude directly relates to user’s intention, which will in turn determine usage of the system. TAM has much strength, including its specific focus on IS usage, the validity and reliability of instruments and its parsimony. (Mathieson et al 2009).

TAM is based on the Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975; Ajzen & Fishbein, 1980) which is concerned with the determinants of consciously intended behaviors (Ajzen & Fishbein, 1980; Davis et al., 1989) appears to be the most widely accepted among information system researchers.(Venkatesh & Davis, 2000; Wang et al 2003; Gefen et al 2003; Cheng et al 2005). TRA has proven successful in predicting and explaining behaviour across a wide variety of domains. TRA is based on the assumption that consumers’ behave rationally and that they collect and evaluate systematically all of the available information. Additionally, TRA assumes that people also take into account the effect of their possible actions and based on this reasoning make decisions on whether or not to take action. (Ajzen & Fishbein, 1980).

#### **4. OBJECTIVES OF THE STUDY:**

To understand the perceptions of customers towards online banking.

To understand the factors which support or reject adoption of on-line banking.

##### **4.1 Hypothesis:**

H0—there is no association between personal profile (age and Income) and perception towards online banking.

#### **5. RESEARCH DESIGN:**

The study is based on exploratory research design and involved administering a structured questionnaire to collect the responses on different factors leading to on-line banking adoption. The study was carried out in the month of Dec/Jan 2010.

In order to fulfill the objective of the study, the data was collected from both primary and secondary sources.

Primary data was collected by means of structured questionnaire

Secondary data was collected from Internet resources, journals and magazines.

### **5.1 Sample size:**

The sample size was agreed on to be 75 users of on-line banking facilities on areas of central Bangalore,

But only 68 questionnaires were usable as the other seven questionnaires were not completed appropriately. So the total sample taken for the study were 68 respondents using online banking facility.

The sampling design was Simple Random Sampling, any person who availed on-line banking services. Participation in the study was on voluntary basis, respondents were provided with assurance of confidentiality.

### **5.2. Limitations of the study:**

The study was confined to only a small area of Bangalore which would not represent the whole population.

We being teachers, majority of the respondents of the study were students who used online banking services.

The finding of this study cannot be extrapolated to other areas.

### **5.3: Data Analysis:**

Data collected from the study was analyzed by using SPSS applications. Chi-square test was advocated to find out the association between Age and Income classification with customer's perception towards on-line banking.

Factors analysis was done to identify the most important factors.

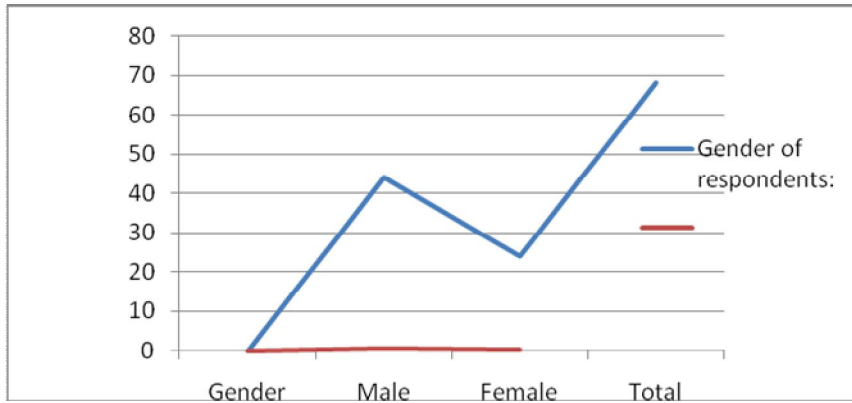
## **6. FINDINGS**

The mean age of the respondents is 22.4 years, which is an indication that online banking is very popular among youngsters.

Demographic profile of respondents is represented as:-

**Table-1 Demographic profile of the respondents**

	<b>Gender of respondents:</b>	
Gender	No .of respondents	Percentage.
Male	44	65%
Female	24	35%
<b>Total</b>	68	



#### Age of respondents:

Age	No. of respondents	Percentage:
Below 25	18	26%
25-35	28	41%
35-45	10	14%
45-55	10	14%
Above 55	2	5%

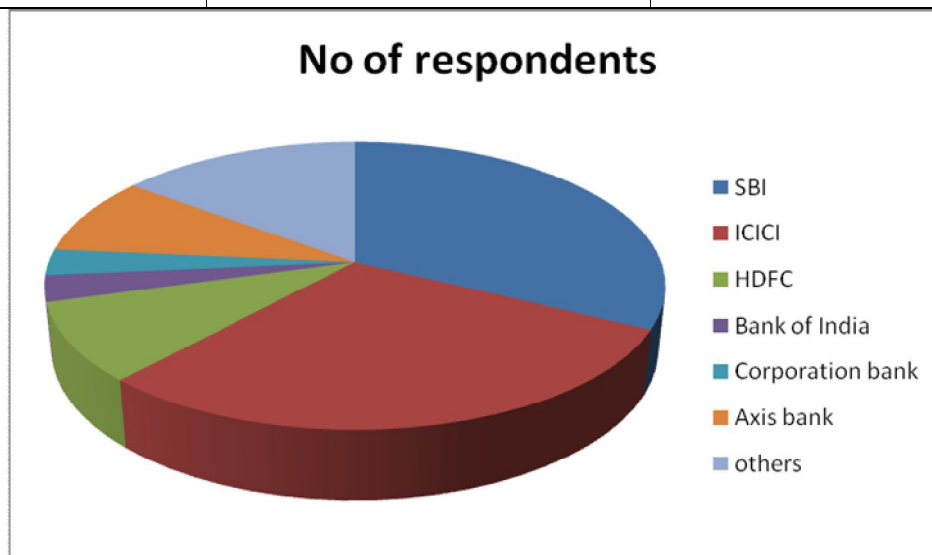
#### Income range of respondents:

Income level	respondents	percentage
Less than 15,000	12	17%
15,000-25,000	20	29%
25,000-35,000	8	11%
35,000-45,000	12	17%
45,000 and above	16	23%



**Table -2: Presents the respondents popular online banker:**

Online banker	No of respondents	percentage
SBI	22	32%
ICICI	20	29%
HDFC	06	9%
Bank of India	02	3%
Corporation bank	02	3%
Axis bank	06	9%
Others	10	14%



**Table-3: Tenure of using online banking:**

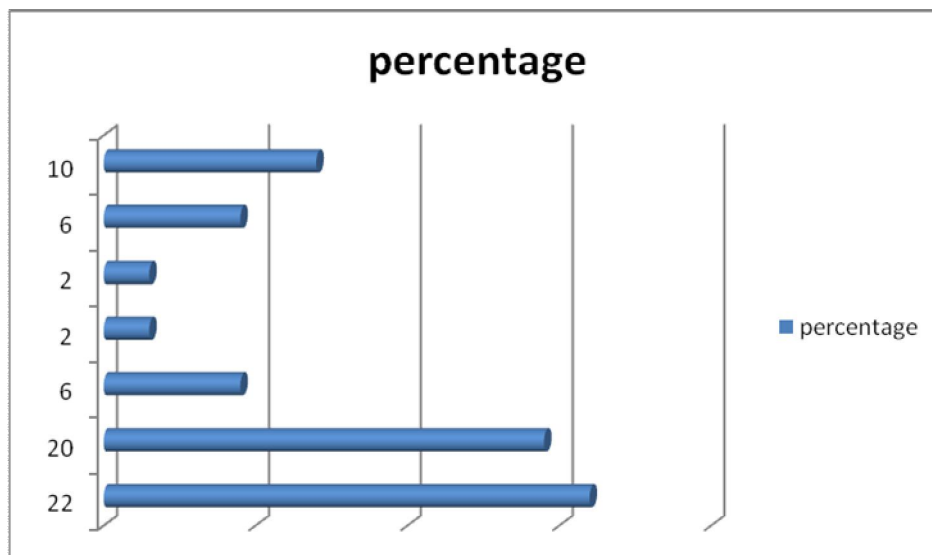
Duration	No of respondents	percentage
1-6 months	12	17%
6-12 months	24	35%
More than year	32	47%

Table 3 depicts majority of the respondents have been using online banking services for more than a year.

**Table-4: Reasons for choosing an online banker**

Sl.No	Reasons	Number of respondents
1	Traditional account	22
2	Excellent services	19
3.	Brand name	06
4.	Prompt service	10
5.	Support staff	05
6.	Well informed	02
7.	Others	04.

The table 4 can be inferred as 'having traditional accounts- i.e. customer loyalty is one of the major factor to choose an online banker, the next best reason is excellent services rendered to the customers, which makes their errands to the banks minimum.



**Table-5: The online banking services commonly used by respondents are: (multiple choices):-**

<b>Sl.no</b>	<b>Online services</b>	<b>Number of respondents.</b>
1.	Seeking product information	27
2.	Calculate loan payment	16
3.	Download bank documents (app)	16
4.	Check balances on-line	32
5.	Apply for consumer loans	12
6.	Inter-accounts transfers.	35
7.	On-line bill payments.	36
8.	Tax filing	12
9.	Others.	21

This table 5 indicates: most common services that are availed by the customers are:

Online bill payment,

Inter-account transfers,

Checking balances on-line.

**Table-6: Banking service that is user friendly**

<b>Sl. No</b>	<b>User-friendly Banking service</b>	<b>Number of respondents.</b>
1.	Internet banking	34
2.	Telephone banking	18
3.	ATM services	51
4.	Traditional banking.	21

Table 6 can be inferred that ATM services of the bank is considered as a most popular and user friendly mode of banking.

**Table-7 : Suitability of on line banking**

Sl.no	category	Number of respondents:
1	Businesspeople/working professional	32
2.	Students.	21
3.	Travelers	18
4.	Pensioners/retired people.	12

**Table:8: Opinion regarding factors for not adopting online banking:**

Sl no	Factors	Strongly agree	Agree	Neutral	Disagree	Strongly disagree.
1.	Difficult to use	14	07	03	24	18
2	No privacy	27	25	4	12	0
3.	Unsafe	19	17	14	16.	03
4.	Unsure/tension	18	16	14	13	06
5.	No knowledge	08	14	28	16	07
6.	Unnecessary cost	14	09	14	19	14
7.	Too slow service	12	16	16	14	08.

It can be inferred from the table 8 that the major factors that prohibit customers' from adopting online banking in full swing are:-

Unsafe, unsure and the tension it creates in the mind of customers, This psychological fear has to be removed by the fool-proof system, which ensures user-friendly website, double linked passwords to open the webpage etc.

No privacy – the fear of hacking of accounts, leakage of information is another factor avoiding customers' patronage.

Slow services which could mean due to technological problems which could not be avoided by bankers.

### 6.1 Hypothesis Testing:

H0: Customers' perception towards the factors is independent of Age.

Chi-square was done to find the association between Age and Income classification with Customers' perception towards Online banking (table 8 and 9)

From Table 8 it is inferred that consumer's perception towards variables such as convenience, Low service charges, easy lifestyle are independent of Age factor, Ease to use, speed of use, and safety and security is dependent on Age factor.

**Table 9:** Age-wise consumers' perception towards On-line banking

S.No.	Factors	Calculated values	Remarks.
1.	Convenience	12.6	Accepted
2.	Ease of use	23.6	Rejected.
3.	Speed of use	21.2	Rejected.
4.	Safety and security	32.3	Rejected.
5.	Low service charges	16.9	Accepted
6.	Makes life easier	14.0	Accepted

Calculated values – (at 5% level significant)=18.30.

H0: Customer perception of factors is independent of Income:

**Table-10:** Income classification of customer perception towards online banking.

Sl.no	Factors	Calculated values	Remarks.
1.	Convenience	12.6	Accepted.
2	Ease of use	17.2	Accepted

3	Speed of use	13.4	Accepted
4	Safety and security	16.7	Accepted
5	Service charges	21.3	Rejected.
6.	Makes life easy	19.4	Accepted.

Calculated values – (at 5% level significant)=18.30.

Table 9 can be inferred that consumers' perception towards factors such as convenience, ease of use, speed of use, safety and security, making life easier are all independent of income of the respondents, only Service charges is dependent on income factor.

### 6.2 Major factors influencing consumers' Perception towards Online banking:

Factor analysis is done here to deduce the data and summarize the factors influencing the consumers towards online banking:

**Table11 Total Variance Explained**

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.319	66.484	66.484	5.319	66.484	66.484	4.744	59.300	35.930
2	1.798	22.472	88.956	1.798	22.472	88.956	2.372	29.656	48.896
3	.637	7.964	96.920						
4	.246	3.080	100.000						
5	3.107E-16	3.884	100.000						
6	2.190E-16	2.738-	100.000						

7	1.058E-16	1.323	100.000						
8	-1.192E-16	-1.490	100.000						

Extraction Method: Principal Component Analysis.

Table-11: The Eigen values represent the total variance explained by each factors. Percentage of the total variance was attributed to each factor. For Exploratory factor analysis, principal component analysis is used where the total variance in the data is considered to determine the minimum number of factors that will account for the maximum number variance of data.

The table depicts that first two factors contribute 48% of the variance in factors.

loadings on each factors facilitates interpretation of factors.

From the following table it can be inferred that Usefulness, and ‘convenience’ are very important factors for adopting online banking in the first set of factors and ‘Ease to use and ‘safety’ of transactions and accounts are some major factors that affect the perception of customers on online banking facilities of banks.

**Table 12.**

**Rotated Component Matrix**

Factors.	Component	
	1	2
convenience	.937	.037
usefulness	.968	-.089
speed	.577	.769
ease	.270	.925
prestige	.906	.345
safety	-.151	.798

security	.930	.135
charges	.903	.378

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.



## 7. FINDINGS

1. Majority of respondents were male.
2. 41% of respondents were of the age group of 25-35.
3. Most of respondents were within the income group between 15,000- 25,000 followed by 45,000 and above group.
4. As far as occupation is concerned there was representation from major areas like students, working professionals, business.
5. SBI was most popular on-line banker among the respondents of this study.
6. 47% of respondents were operating online transactions for more than one year.
7. ATM services are the most popular and user-friendly banking services according to the respondents of this study.
8. 'Business people' followed by 'Travelers' are considered to be most suitable for online banking model.
9. 'Ease to use' and 'speed of use' is considered as Age -dependent factor towards online banking.
10. Fear of hacking, unsafe and 'No privacy' are the major causes for not adopting online banking regularly.
11. 67% of respondents expressed satisfactory attitude towards their bankers.
12. '**Convenience**' and '**Usefulness**' is the major factor influencing the adoption of on-line banking.
13. '**No privacy**' and '**Unsafe**' are the two major causes for not adopting online banking habits.

## Recommendations

1. Increasing the security of Information, by providing the foolproof system of double log-in and double log-out passwords will help in increasing the safety of transactions.
2. Sending SMS, or an alert system to customers after any transaction online will boost the level of confidence of customers'.
3. User friendly web-pages which performs the services adequately.
4. Transparent services charges- respondents feel there a lot of disguised services charges which can be structured.

## Scope for Further Research

This study can be carried forward in these areas:

- Understanding customers' perception towards online banking service on a national scale.
- Challenges and opportunities of introducing online banking services in Rural India
- A study on advantages and demerits of on-line banking in relation to Traditional banking practices can be conducted.

## Conclusion

On-line banking facility is no doubt a boon to customers who can perform the banking transactions a click away, but it has to be very secure and fast enough to gain the trust and confidence of a common man. The pockets of growth and development in India, lack of adequate infrastructure does not allow on-line banking services to penetrate in rural India effectively. But there is a slow upscale into traditional banking methods with the latest technology related benefits serving today's knowledgeable banking customer.

## References

1. Ajzen, I. and Fishbein, M. (1980), *Understanding Attitudes and Predicting Social Behavior*, Prentice – Hall, Englewood Cliffs, NJ.
2. AL –Gahtani, S (2001), "The applicability of TAM outside North America: an empirical test in the United Kingdom", *Information Resources Management Journal*, July-September, pp. 37-46.
3. Black, N.J, Lockett,A., Winklhofer, H., and Mckechnie, S. (2002), "Modelling Consumer Choice of distribution channel: an illustration from financial services", *The International Journal of Bank Marketing*, Vol.20, No.4, pp. 161-73.
4. Bradley . L, & Stewart, K. (2003), "A Delphi study of the drivers & inhibitors of Internet banking", *The International Journal of Bank Marketing*, Vol.20, No.6, pp.250-60.
5. Davis, F. D. (1993), "User acceptance of Information technology, system characteristics, user perceptions and behavioral impacts", *International Journal of Man-Machine Studies*, Vol. 38, pp. 475-87.
6. Davis, F. D., Bagozzi, R. P. and Warshaw, P.R. (1989), "User acceptance of computer technology: a comparison of two theoretical models", *Management Science*, Vol.35, No.8, pp. 982-103.
7. Davis, F.D., and Venkatesh, V. (1996), "A critical assessment of potential measurement biases in the technology acceptance model; three experiments", *International Journal of Human-Computer Studies*, Vol. 45, pp. 19-45.
8. Delone, W.H., and Mclean (1992), "Information systems success: the quest for the dependent variable"
9. Fishbein, M., and Ajzen, I. (1975), *Belief, Attitude, Intention, and Behaviour: An Introduction to Theory and Research*, Addison – Wesley, Reading, MA.
10. Gerrard, P., and Cunningham, J. B. (2003), "The diffusion of Internet banking among Singapore consumers", *The International Journal of Bank Marketing*, Vol. 21, No.1, pp.16-28.
11. Gefen, D., and Straub, D. (2000), "The relative importance of perceived ease of use in IS adoption: a study of e-commerce adoption", *Journal of the Association for Information System*, Vol. 1, No.8, pp.1-28.
12. Giglio,V. (2002), "Privacy in the world of cyber banking: emerging legal issues and how you are protected", *The Secured Lender*, March/April, pp. 48-60.

13. Howcraft B., Hamilton, R., and Hewer, P. (2002), "Consumer attitude and the usage and adoption of home-based banking in the United Kingdom", *The International journal of Bank Marketing*, Vol.20, No.3, pp. 111-21.
14. Hamlet, C., and Strube, M. (2000), "Community banks go on line", *ABA Banking Journal's 2000 White paper /Banking on the Internet*, March, pp.61-65.
15. Karjaluoto, H., Mattila, M., and Pentto, T. (2002), "Electronic banking in Finland – Consumer beliefs and reactions to a new delivery channel", *Journal of Financial Service Marketing*, Vol.6, No.4, pp. 346-361.
16. Mattila. M., Karjaluoto, H., and Pentto, T. (2003), "Internet banking adoption among mature customers: early majority or laggards", *Journal of Service Marketing*, Vol.17, No.5, pp.514-26.
17. Mols, N.P. (1998), "The behavioral consequences of PC Banking", *The International Journal of Bank Marketing*, Vol.16, No. 5, pp. 195-201.
18. Mols, N. P., Bukh, P.N.D., and Nielsen, J.F. (1999) "Distribution channel strategies in Danish retail banking", *International Journal of Retail and Distribution Management*, Vol.27, No.1, pp.37-47.
19. Mathieson, K. (1991), "Predicting user intentions: comparing the technology acceptance model with the theory of planned behavior", *Information system Research*, Vol.2, No.3, pp. 173-91.
20. Polatoglu V. N. and Ekin. S. (2001), "An empirical investigation of the Turkish consumers' acceptance of Internet banking services", *International Journal of Bank marketing*, Vol.19, No.4, pp. 156-65.
21. Robinson, T. (2000), "Internet banking: still not a perfect marriage", *Informationweek.com*, April 17, pp. 104-6.