

## Factors Affecting the Acceptance of E-Banking among Customers of Gwalior Region

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*In the world of banking, the development of information technology has an enormous effect on development of more flexible payments methods and more-user friendly banking services. Internet banking involves, consumer using the Internet to access their bank account and to undertake banking transactions. In this study Factor and Regression analyses were used to know trend of internet use and factors affecting e-banking.*

**Keywords:-** E-banking, Technology, Consumer, Security & Privacy, Net Banking, Banking Services.

Electronic banking is commonly known as Internet banking or e-banking. The concept of e-banking has been defined in many ways. Daniel (1999) defines e-banking as the delivery of banks' information and services by banks to customers via different delivery platforms that can be used with different terminal devices such as a personal computer and a mobile phone with browser or desktop software, telephone or digital television. It can also be defined as the delivery of banking services through the open-access computer network (the Internet) directly to customer's home or private address. Internet banking, which was introduced in the early 1990s [Srivastava, 2007], makes it possible to replace the manual service functions provided by bank employees, along with the brick and mortar investment required of financial institutions [Dandapani, et al., 2008]. It represents an electronic marketplace where consumers may conduct their financial transaction. Internet Banking involves consumers using the internet to access their bank account and undertake banking transactions, anytime and anywhere. It involves provision of facilities such as accessing accounts, funds transfer and buying financial products or services online. From the banks' point of view, the use of Internet Banking is expected to lead to cost reductions by sweeping away inefficiencies and also by enhancing competitiveness.

One significant step that banks must take before going through any transformation is to insure the proper handling of online banking risk (Al-Alawi, 2005). But it is very difficult for both the customers and the banks to determine the best approach to use of online banking. A particular risk arises with trying to integrate new channels with existing channels (Aljlfri et. al., 2003). In India, slowly but steadily, the Indian customer is moving towards Internet banking. But they are very concern about security and privacy of internet banking (Malhotra and Singh, 2009). In the Internet banking trust plays a very important role. It is very difficult to analyze trust as a phenomenon and may be almost impossible to analyze trust in the context of electronic commerce because of the complexity and risk of electronic commerce. Trust will be the decisive factor for success or failure of e-banking.

The Purpose of this paper is to study the acceptance of internet banking among customers of Gwalior region and to investigate how customers perceive electronic banking services? As well as also depicts that what are the acceptance factors in spite of security and privacy concern between Gwalior customers? And what should be guidance provides by banks to customers that they can increase their willingness to adopt online banking? The answers of these questions are tried to find out in this paper.

### Literature Review-

The concept of electronic banking has been defined in many ways (e.g. Daniel, 1999). According to Karjaluo (2002) electronic banking is a construct that consists of several distribution channels. Electronic banking is commonly known as internet banking or e-banking. Internet Banking, defined as "the delivery of banking services through the open-access computer network (the internet) directly to customers' home or private address". (Lau, 1997) has experienced phenomenal growth in recent years. In 2006, Pew Internet and American Life Project reported that nearly half of internet users in the United States - 63 million adults - bank online (Fox and Beier, 2006). In many

ways, e-banking is not unlike traditional payment, inquiry, and information processing system, differing only in that it utilizes a different delivery channel. Any decision to adopt e-banking is normally influenced by a number of factors. Liao et al. (2008) stress that the success in Internet banking will be achieved with tailored financial products and services that fulfill customer's wants, preferences and quality expectations.

The importance of security and privacy for the acceptance of online banking has been noted in many banking studies (Hernandez and Mazzon, 2007; Chen and Barnes, 2007; Sathye, 1999; Hamlet and Strube, 2000; Tan and Teo, 2000; Polatoglu and Ekin, 2001; Black et al., 2002; Howcroft et al., 2002). To be more precise, lack of privacy and security were found to be significant obstacles to the adoption of online banking (Chen and Barnes, 2007; Sathye, 1999). Roboff and Charles (1998) found that people have a weak understanding of online banking security risks although they are aware of the risks. Furthermore they noted that although consumers' confidence in their bank was strong, their confidence in technology was weak (Howcroft et al., 2002). As the amount of products and services offered via the Internet grows rapidly, consumers are more and more concerned about security and privacy issues.

Among the predictors of the intention to use Internet banking, trust has been found to be one of the most important factors that influence an individual to use the technology [Md Nor and Pearson, 2007]. Trust is also a vital factor in determining whether an individual chooses to purchase goods or services via the Web [Quelch and Klein, 1996]. As noted by Spekman [1988], trust is the cornerstone of the strategic partnership between a business and its Internet customer. Ridings, et al. [2002] argue that trust is crucial in virtual communities where the absence of workable rules creates reliance on others behaving in a socially acceptable manner. Trust is a prominent influence on an individual's willingness to engage in online exchanges of money and personal sensitive information [Wang, et al., 2003]. Trust tends to influence an individual's general buying decisions. According to Enders, et al. [2006], non-Internet believers require a substantial effort of persuasion before they start engaging in e-banking and create an e-habit. An empirical study by Poon [2008] indicates that approximately 70% of his Malaysian respondents agree that trust is influencing them to use Internet banking. In another empirical study in Singapore by Fock and Koh [2006], the authors found that higher levels of trust are significantly associated with a greater willingness to try Internet banking.

#### **Objective of The Study-**

1. To study the factors affecting the acceptance of e-banking among customers.
2. To analyze the level of concern regarding security and privacy issues

#### **Research Hypotheses-**

Formulation of hypothesis is the foundation of all scientific research work as it gives direction to the inquiry and helps the researcher to draw specific conclusion. It is indeed essential to emphasize the fact that the Gwalior region is different from the other regions where previous research was conducted. The researchers predicted that the familiarity and economic benefits of using the Internet has a significant impact on the acceptance of online banking. If customers are not used to accessing the Internet frequently, and if they do not trust the Internet as a secure environment to conduct financial transactions, then it is nearly impossible for them to accept online banking. Therefore, the following is hypothesized:

- H1. Security and privacy has significant impact on adoption of Internet banking among customers.
- H2. Trust has significant impact on adoption of Internet banking among customers.
- H3. Innovativeness has significant impact on adoption of Internet banking among customers.
- H4. Familiarity has significant impact on adoption of Internet banking among customers.
- H5. Awareness has significant impact on adoption of Internet banking among customers.

#### **Methodology-**

It is an empirical research and it was conducted to clarify the different aspects of problem under study. The study aims at identifying the factors affecting acceptance of e-banking among customers of Gwalior region. The source of data collection is primary. A questionnaire form was made by the researchers consisting of 25 questions about the

respondents and their willingness to conduct online banking. The questions were focused on the extent to which people use the Internet and purchase items using online methods. Following, respondents were asked if they were aware of online banking and whether they were willing to experience it had their banks provided sufficient support.

The sample size comprised of 100 respondents. The response was collected from both male and female in each area of different age group with the help of different questions. Gwalior city was selected to conduct this study. The variables were measures using multiple items. All of the scale items represented in the survey instrument utilizing a five point categorical rating scale. The anchors used included: a) 1= strongly agree, b) 2= agree, c) 3= neither agree nor disagree, d) 4= disagree, e) 5= strongly disagree.

### Research Findings-

The descriptive statistics of the respondents were analyzed in Table 1 and presents the demographic characteristics of the 100 respondents. It first shows that about 58 respondents are male and 42 respondents are female. Table 1 also shows that 57 respondents are of age group 20-30 and most of the respondent's access internet from their home.

DEMOGRAPHIC VARIABLES	Categories	No of respondents
Gender	Male	58
	Female	42
Age(in years)	20-30	57
	30-40	22
	40-50	11
	50-60	10
Degree	12th	21
	Graduation	27
	Master	22
	Professional	30
Income(in month)in Rupees	15000	40
	15000-30000	22
	30000-45000	25
	More than 45000	13
Access Internet	Home	60
	Office	21
	School	10
	Cyber cafe	9

### Source: primary data

First Cronbach's alpha analysis was performed to test the reliability coefficient. According to the result of cronbach alpha test total scale of reliability for this test varies from .875 to .884 this result indicated on overall higher reliability factor then we perform the factor analysis for the five multi-item measures by utilizing principal component extraction process with Varimax rotation. A suggested measure of factor

loading of 0.5 or greater is adopted. As shown in the table 4, the measurement items are classified into the five independent variables. The Eigen values of all factors exceed 1.0, and about 75 percent of total variance is explained by these five factors. These factors are labeled security & privacy, trust, innovativeness, familiarity and awareness.

**Table 2.**  
**Reliability Statistics**

Cronbach's alpha	Cronbach's alpha based on strandized items	No of items
.875	.884	25

**Table 3.**  
**KMO and Bartlett's Test**

Kaiser-Meyer- Olkin Measure of Sampling Adequacy	0.636
Bartlett's Test of Sphercity	Approx Chi Square
	df
	Sig
	300
	.000

**Table4.**  
**Factor Analysis for Acceptance Factors of e-banking**

Security & Privacy	F1	F2	F3	F4	F5
Financial security and confidentially.	.577				
Online banking will increase in future.	.423				
Financial information is trusted.	.599				
Banks websites increase customer interest.	.637				
I trust the benefit provided by online banking.	.509				
Banking provides problem solution menu.	.642				
Trust					
Useful tips for use to operate online banking		.749			
Encourage me to open an account		.644			
Banks are conducting seminar to educate		.483			
Website design is very efficient		.532			
Online banking provides easy instructions		.514			
encourage me to transfer the fund through online		.662			
Innovativeness					
Online banking websites are trustworthy			.780		
I trust my online banking websites			.665		
I will recommend to other to online banking			.690		
Familiarity					
Only authorized person can access own account				.729	
Simple operational procedure				.599	
Banks website is secure for the fund transfer				.747	
Simple to operate				.561	
Awareness					

Privacy of my account.	3.782	3.389	2.938	2.691	.714
Banks never misuse my financial information.	15.129	13.557	11.750	10.764	.679
I intend to use e-banking in future	15.129	28.686	40.437	51.201	.559
Eigen values					2.278
% of variance					9.111
Cumulative variance					60.311

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalization

Diffusion Factors	$\beta$	t	Sig.	Result
Constant	3.01	71.734	.000***	Accepted
Security & Privacy	.577	11.772	.000***	Accepted
Trust	.346	8.100	.000***	Accepted
Innovativeness	.472	9.859	.000***	Accepted
Familiarity	.589	15.995	.000***	Accepted
Awareness	.243	8.016	.000***	Accepted
F - value			137.98	
R-square			.96	

To test the hypotheses the linear regression analysis was performed. It is regressed on the five independent variables identified through the factor analysis. The results are reported in Table 5. The regression equation is significant at 1% level with the F value of 127.98 and the independent variables account for 75% of the variance of degree of the acceptance of e-banking by customers. Security and privacy ( $\beta=0.577$ ), trust ( $\beta=0.346$ ), innovativeness ( $\beta=0.472$ ), familiarity ( $\beta=0.589$ ) and awareness ( $\beta=0.243$ ) are significantly positively related to the acceptance of e-banking services.

### Conclusion and Recommendations:

In India there is need for providing better and customized services to the customers. Banks must be concerned the attitudes of customers with regard to acceptance of online banking. It is shows that young customers are more reluctant to join new technologies or methods that might contain little risk. In addition banks should design the website to concern security and privacy issues.

The recommendations to the banks are that they have to increase the level of trust between banks' website and customers. Because customer perception on security and privacy aspect have been seen in the literature. The importance of security and privacy for the acceptance of internet banking has been noted in many banks study and found customers are ready to adopt online banking if banks take necessary action. There are following strategies should be applied by bank

- Banks should ensure that online banking is safe and secure for financial transaction like as traditional banking.
- Banks should organize seminar and conference to educate the customers regarding uses of online banking as well as security and privacy of their accounts.

### Reference:-

- 1- Abdulwahed Mo. Sh. Khalfan and Yaqoub S.Y. AlRefaei, (2006). Factors influencing the adoption of internet banking in Oman: a descriptive case study analysis. International Journal of Financial Services Management, 1 (2/3), 155-172.
- 2- Aljlfri, H.A., Pons, A. and Collins, D. (2003). Global e-commerce: a framework for understanding and overcoming the trust barrier. Information Management & Computer Security, 11 (3), 130-138.
- 3- Akinci S, Aksoy S, Atilgan E (2004). Adoption of internet banking among sophisticated consumer segments in an advanced developing country. Inte. J. Bank Mark. 22(3): 212-232.

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- 4- Belanger, F., Hiller, J.S. and Smith, W.J. (2002). Trustworthiness in electronic commerce: the role of privacy, security, and site attributes, *The Journal of Strategic Information Systems*, 11 (3/4), 245-70.
- 5- Chen YH, Barnes S (2007), Initial trust and online buyer behaviour. *Ind. Manage. Data Syst.* 107 (1), 21-36.
- 6- Cranor LF, Reagle J, Ackerman MS (1999). Beyond concern: understanding net users' attitudes about online privacy, technical report, TR 99.4.3, AT&T Labs -Research, available at: [www.research.att.com/resources/trs/TRs/99/99.4/99.4.3/report.htm](http://www.research.att.com/resources/trs/TRs/99/99.4/99.4.3/report.htm).
- 7- Friedman, B. (2002). Users' Conceptions of Risks and Harms on the Web: A Comparative Study, *Ext. Abs. CHI*, 614-615, Strategic Information Systems, 11 (3/4), 245-70.
- 8- Gerrard, P. and Cunningham, J.B. (2003). The Diffusion of internet banking among Singapore consumers. *The Journal of Bank Marketing*, 21 (1), 16-28.
- 9- Jun, M and. Cai, S. (2001). The Key Determinants of Internet Banking Service Quality: A Content Analysis. *International Journal of Bank Marketing*, 19 (7), 276-291.
- 10- Kalakota, R. and Whinston, A.B. (1997). *Electronic commerce: A Manager Guide*, Addison Wesley, Reading, MA.
- 11- Liao, J. and Lin, T. (2008), Effect of consumer characteristics on their acceptance of online shopping: comparisons among different product types, *Computer in human behavior*, 24 (1), 48-65.
- 12- Liao Z. and Cheung M.T. (2002). Internet based e-banking and consumer attitudes: An empirical study. *Information and Management*, Volume 39, pp. 283-295.
- 13- Sathye, M. (1999) 'Adoption of internet banking by Australian consumers: an empirical investigation', *International Journal of Bank Marketing*, Vol. 17, No. 7, pp.324-334.
- 14- Smith, A.D. (2006) 'Exploring security and comfort issues associated with online banking', *Int. J. Electronic Finance*, Vol. 1, No. 1, pp.5-17.