AN EMPIRICAL STUDY ON CUSTOMERS' INTERNET BANKING BEHAVIOR

Dr. Jyoti Ranjan Das[*]

Dr.Manoranjan Dash*

Ms. Anita Sahoo*

Dr.Ayasa Kanta Mohanty*

ABSTRACT:

Increase in internet usage by customers is a booming for the banks for delivering their financial services through internet. Internet banking a transactional medium provides a alternate faster delivery of banking services to customers. This study aims to collect the customers' perceptions towards the potential benefits and the risks associated to internet banking in India. Five point likert scales was used for examining the factors affecting customers' attitudes towards internet banking. A total of 270 customers' were randomly selected..A conceptual model of adoption to use of internet banking with extended TAM and the intention to use internet banking services was developed.

Keywords: Attitude, Internet Banking, Technology Acceptance Model

[*] **Associate Professor, Faculty of Management Sciences, Siksha O Anusandhan University, Bhubaneswar**

1.0 INTRODUCTION

Before the age of the Internet, there have been many technological advances that influenced the operations of business transactions. The most recent technological advancement is the onset of Internet technology that has transformed the entire business marketplace (Burt and Sparks, 2003). Schwartz (1997) compared the way the Internet has changed the rules of business to the way automatic teller machines have transformed the customer's banking experience. Customers are finding for ease of use, speed and convenience as the main factors for internet banking. Many business are now migrating towards cost savings and the evolving of ecommerce technology had provides a platform the internet banking success. Internet banking a new channel for delivering financial services and is missile for achieving competitive advantage over others. The internet platform promises a revolutionary in the banking industry and providing the customers a wide range of financial services. Internet baking adoption but customers is still in infancy stage while customers are still attracted towards the traditional branch banking. In this context private bank are the early adopter of the merging technology and still public sector bank are lagging behind. As per IDC estimates, the total number of registered users for Internet banking in India is over two million. India has a little less than a million active Internet banking users. And though this is just 0.096 percent of the total population, it represents 15 percent of the India's Internet user population. Thus indicating that the concept of Internet banking is surely catching on.

2.0 THEORETICAL FOUNDATIONS

TAM model developed by Davis et.al. (1989) , widely used model in technology adoption, focuses on parameters that influence the intention to adopt internet banking buy customers. The theory of reasoned action (TRA) (Fishbein and Ajzen, 1980) , perceived usefulness and perceived ease of use, were the two factors .These two determine the individual's intention to use a technology based system . Perceived ease of use have a direct impact on perceived usefulness. TAM model was including perceived usefulness, perceived ease of use, and attitude toward using the Internet banking (Davis et al., 1989). Correspondently, the characteristic of perceived innovative attributes consisted of trailability, relative advantage, complexity, and compatibility (Rogers, 1995). The TAM tends to predict user adoption of new technologies in positive perspective. However, customers will reduce their usage or even refuse to use a technology if they subjectively expect that an injury or a loss likely occurs while using the technology. The

degrees of risk that consumers perceive and their risk tolerance are attitudinal factors that affect their usage (Chan et al., 2004). Perceived risk has multi-dimensions, including financial, performance, physical, psychological, social and time risks (Jacoby and Kaplan, 1972; Havlena and DeSarbo, 1990; Murray and Schlacter, 1990; Stone and Gronhaug, 1993). The model consists of two attitudinal dimensions: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). PU is defined as "the degree to which a person believes that using a particular system would enhance his or her job performance" (Davis, 1989, p. 320). Davis et al. also claim that PU is directly linked to intentions of use .Thus, according to TAM, a user's acceptance of a technology is dependent on two factors: perceived usefulness and perceived ease of use. Together, these factors determine the attitude toward using the technology. This in turn affects the behavioral intentions of use, which then leads to actual use. Security and reliability of transactions over the internet is a burning issue and it is an important factor that customers consider before adopting Internet banking. The process of internet banking reflects how the increased use of technology further depersonalizes a process that, at its core, requires assurances that can come only from trust. Despite the benefits of internet banking, the use of an electronic medium makes it harder for banks to gain consumer trust (Meuter, Ostrom, Roundtree & Bitner, 2000).

3.0 RESEARCH OBJECTIVES

- To explore the attributes those customers' believe when using internet banking.
- To analyze the parameters that influence customer's attitude towards Internet banking adoption using Structural Equation Model methodology.

4.0 Analysis and Results

Data for the study were gathered by primary data collection method through consumer survey questionnaires by adapting the instrument and scales developed for TAM administered among internet banking consumers' of banks. We tested the structural model by means of Confirmatory Factor Analysis (CFA). An exploratory factor analysis using SPSS was conducted on the survey data. A five-point likert scale ranging from (1) 'strongly disagree' to (5)'strongly agree' were used to assess responses.

The adequacy of the data is evaluated on the basis of the results of Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity. The KMO measure of sampling adequacy is .738 indicating that the present data are suitable for factor analysis. Bartlett's Test of Sphericity is significant (p<.001), indicating sufficient correlation exists, between variables for the factor analysis. The Bartlett's Test statistics is approximately distributed and is accepted. The closer the result is to 1, the more the suitability of data for PCA analysis. The first 6 components i.e. factors in the above table have an Eigen values over 1 and they account for about 80 percent of the observed variation in the consumers' perception about internet banking. According Kaiser Criterion, only the first 6 factors should be used because their Eigen values are more than one.

Table-1

Customers' Perception towards advantages of Internet banking

Advantages of Internet Banking	Mean	Std. Deviation
Less Time taken for transactions	4.61	.499
Faster Speed of Transactions	4.17	.388
Low Risk of Carrying Cash	4.13	.344
High Reliability of information	4.13	.458
High Operational efficiency	3.91	.417
Improved Service quality	3.87	.548
Low Cost of transaction	3.26	.449

Table 1 shows customers perception towards the advantages of Internet banking. Separate mean scores of respondents were computed and presented. Respondents disagree with the statement that internet banking minimizes cost of transactions.

Table-2

Customers' Risk Perception towards Internet Banking

Statements	Mean	Std. Deviation
Internet Banking lacks information security	4.83	.388
Internet Banking has the chance of Technical problem	4.30	.470
Internet Banking has the chance of frauds	3.57	.507

Internet Banking has many legal and security issues	3.65	.935
Internet Banking has the chance of data loss	3.43	.507
Internet Banking lacks required expertise and training	4.00	.426

Table 2 shows computes customers' perceptions towards the risks associated to internet banking in terms of mean scores. The customers' perception that internet banking lacks information security is the highest in terms of mean scores, among all the risks associated to internet banking. Next to information security is the perception that internet banking has the chance of technical problem while performing their financial transaction. The least perceived risk is the chance of data loss in internet banking.
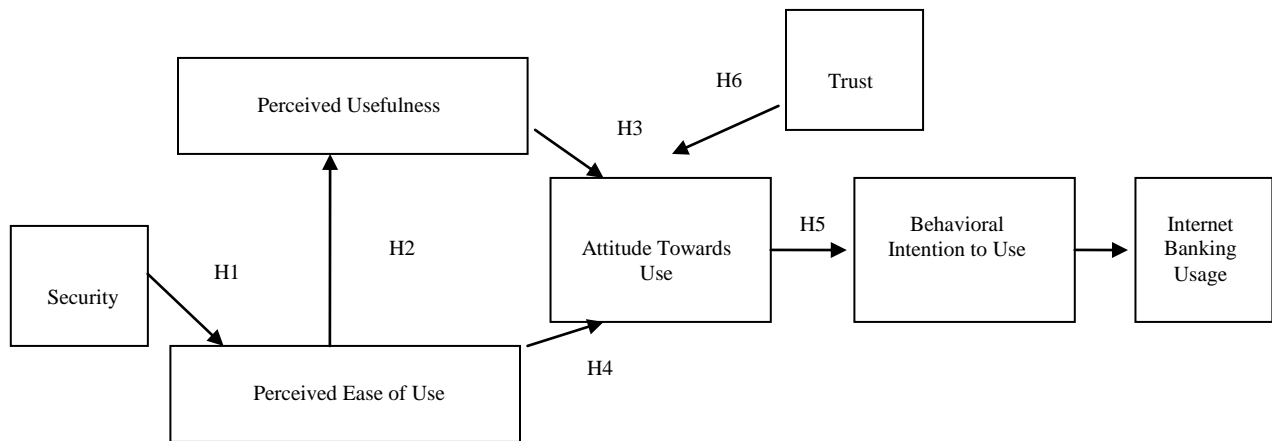
(Modified Conceptual Framework of Technology Acceptance Model (TAM), Web Security and Trust)
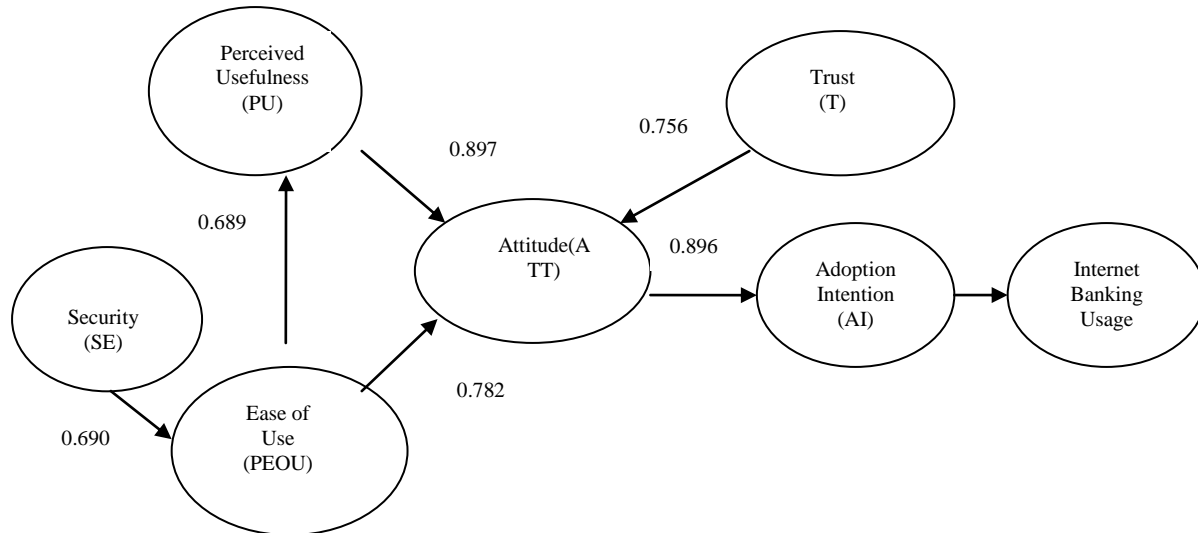
Structural equation modeling (SEM) was used to test the model and analyze the factors that affect customer's attitude towards Internet banking acceptance.

Path Testing

Research Path	R²	Path coefficient (β)	P-Value
SE → ATT	0.346	0.690	0.000***
PEOU → PU	0.578	0.689	0.000***
PU → ATT	0.674	0.897	0.000***
PEOU → ATT	0.579	0.782	0.000***

ATT → AI	0.769	0.896	0.000***
T → ATT	0.478	0.756	0.000***

*** p< 0.0001

(Results of Structural Equation Model)

80% of the variance is being explained by the variable under the study. Perceived Security have significant effects on Perceived Ease of Use (PEOU) and explain 67% of the variance . Perceived ease of use (PEOU) and perceived usefulness (PU) influenced customer attitudes towards using Internet banking. Theses factors had positive path coefficients Attitudes towards (ATT) use explain 73% of the variance in adoption intention (AI) with path coefficients of 0.896.

5.0 CONCLUSIONS:

Security and ease of use are the prime factors being selected by customers for forming a positive attitude towards internet banking adoption which in turn leads to the intention to use internet banking in future. Trust , Perceived Ease of Use & Perceived Web Security are predicting variables, affecting Perceived Usefulness and Attitude, and Intention to Use internet banking as the dependent variable. Perceived Usefulness, Trust and Perceived Web Security has a direct effect on Intention, while Perceived Ease of Use has only an indirect impact.

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Appendix

Table -3

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.738
Bartlett's Test of Sphericity	Approx. Chi-Square	3451.382
	Df	1272
	Sig.	.000

Table-4

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.901	24.379	24.379	3.901	24.379	24.379	3.499	21.867	21.867
2	2.561	16.006	40.386	2.561	16.006	40.386	2.682	16.764	38.632
3	2.330	14.561	54.947	2.330	14.561	54.947	2.355	14.716	53.348
4	1.667	10.422	65.369	1.667	10.422	65.369	1.717	10.729	64.077
5	1.415	8.843	74.212	1.415	8.843	74.212	1.499	9.367	73.444
6	1.002	6.260	80.472	1.002	6.260	80.472	1.124	7.028	80.472
7	.924	5.776	86.248						
8	.744	4.653	90.901						
9	.464	2.898	93.799						
10	.255	1.592	95.390						
11	.245	1.531	96.922						
12	.211	1.319	98.241						
13	.142	.887	99.127						
14	.077	.484	99.611						
15	.047	.294	99.905						
16	.015	.095	100.000						

Extraction Method: Principal Component Analysis.