

Factors affecting the Customer Acceptance of E-Banking in Pakistan

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ABSTRACT

In this present era of technology, every individual is being affected by technology. E-banking technology has wide acceptance throughout the world. Pakistan also has a high technology acceptance ratio. E banking in Pakistan is provided by wide range of banks to their clients but their potential should be completely utilized in order to attain cost advantage. The underlying purpose of this research is to evaluate the customer acceptance of E-banking in Pakistan. The model was developed through TAM and also from focused group interviews of top banking management. Five hypotheses were developed and this model was tested with 208 respondents in two major cities of Pakistan. The response of the respondents was quite appreciated and the response rate was about 65 %. In the data analysis the factors analysis was conducted which made five factors while considering only 17 variables. The results of data analysis showed that only amount of information and security and Privacy has impact on the behaviour of the customers. This finding shows that the customers accept E banking due to security and privacy and amount of information is also considered to be influencing factor.

KEYWORDS: E banking, Technology acceptance, customer acceptance.

INTRODUCTION

Human general and professional life is highly influenced by technology innovations. People's lives have been altered by the swift expansion in technology. The global economic and business atmosphere is altered due to rapid technology spread [1]. Fast banking communication and transactions for client is the outcome of developments in information technology [2]. The technology can be used for establishing intra bank or even interbank connection which can be efficiently utilized by both customers and service providers in order to accelerate operations [3]. The bank branches cannot fulfill the needs of the highly demanding customers without the use of technology [4]. The fastest emergent online banking practices also includes E-banking. It is very important to extend E-banking facilities to customer because it can be beneficial for both clients and banks [5]. In this study the E-banking is defined as an electronic platform where the customers can make their banking transactions electronically and these truncations may include bill payment or funds transfer.

Research purpose

Assessing the customer acceptance of E-banking using technology acceptance model (TAM)

Research Questions

Q1: "What is the connection between perceived usefulness and customer acceptance of electronic banking?"

Q2: "What is the relationship between perceived ease of use and customer acceptance of electronic banking?"

Q3: "What is the relationship between perceived enjoyment and customer acceptance of electronic banking?"

Q4: "What is the relationship between amount of information and customer acceptance of Electronic banking?"

Q5: "What is the relationship between Security and privacy and customer acceptance of Electronic Banking?"

LITERATURE REVIEW

No one can deny the effects of banking sector on economy. The banking in Pakistan is one of the fastest growing sector having more than 25 banks with many branches. The banking sector in Pakistan includes many banks. There are some public sector banks with old traditional way of banking and other are private banks with modern way of banking but all banks in Pakistan are offering E-banking facilities to their valued clients [6]. These services are provided on pan Pakistan basis. The paperless transactions in Pakistan's banking sector are increasing day by day.

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The dispersion and growth in banking sector has been attributed to two factors. Firstly the providence of services related to E banking can aid in cost benefit to the bank. The cost-effective delivery channel for financial services is E-banking [7, 8]. Secondly, banks can cut down the cost by reducing the service centers and its staff because many customers think that Electronic Banking requires less time and money [9]. The main reasons of e-banking acceptance are low cost, less time and lack of restrictions for place [10, 11, 12]. Numerous studies point out that Electronic bankers are the more money-making and wealthiest fragment to banks [13, 14]. E-banking facility cannot be underestimated by the banks. Luxman indicates that with increase in technology literacy the E-banking facility can be more beneficial to countryside customers [15].

Apart from many benefits of e-banking many banks are not providing E-banking facilities to their customers. There are many reasons for this. First of all customers must have internet connection for E service utilization. Users must know how the E service is used [13]. Another issue for non-users is no face-to-face interaction with the service providers [9]. Lastly the customers have concern about the security issues [7].

There are many reasons for banks to invest in technology. The possible reasons are overall low cost, High volume and high quality [16]. The successful technology adoption of an organization is based on the customer's acceptance and attitudes towards technology [17]. The more acceptance of technology by users the more system is successful [18]. Technology Acceptance Model is widely utilized in order to study the information technology [17]

Hypothesis

Perceived Usefulness PU

Perceived Usefulness is about customers believes that E-Banking can enhance his or her job performance. Previous studies show that a strong relationship exists among perceived Usefulness and acceptance of technology. Davis defined PU as "the degree to which a person believes that using a particular system would enhance his or her job performance" [19].

H1. Perceived usefulness (PU) is directly related to consumer acceptance of E banking.

Perceived Ease of use PEOU

PEOU is defined as "the degree to which a person believes that using a particular system would be free of effort" [19]. The customers may think that e-banking is useful but at the same time they may have a perception that it is difficult to use [19]. *Perceived ease of use is important determinant in adoption of information technology such as wireless internet [16] and online banking [3].* The complexity of a technology will discourage its use Rogers. The technology easier to use and easier to learn is more accepted by users [20]. The consumer acceptance of online banking is increased by its perceived ease of use of customers.

H2. Perceived ease of use (PEOU) is directly related to consumer acceptance of E banking

Perceived enjoyment

"Enjoyment refers to the extent to which the activity of using a computer is perceived to be enjoyable in its own right" [20] *Perceived enjoyment is positively correlated with the time of use but it does not depend on the use frequency of the technology and number of task accomplished with it.*

Perceived enjoyment is correlated positively with the internet usage frequency and the daily use of internet. The perceived playfulness and perceived fun are synonym to the concept of Perceived enjoyment.

H3. Perceived enjoyment (PE) ha is directly related to positive effect on consumer acceptance of E banking

Information on E-banking

Information about E-banking refers to knowledge provided by banks about E-banking. Low information on E-banking has a negative impact on its adaptation behavior [7]. According to Sathye while the use of e -banking services is a new experience to many people, low awareness of online banking is a major factor in causing people not to adopt e- banking [7]

H4. The amount of information a consumer has about E-banking effect banking is directly related to consumer acceptance of E banking

Security and Privacy

Better security and privacy increases the customer's confidence in E-banking [7]. The success of technology adoption is affected by the trust of consumer on technology like e-banking and issues related to security and privacy influence the customer behavior [3,9]. Trust is an extent to which a person believes that e- banking is secured completely and has no threats related to privacy. Security and privacy deals with how much a technology is perceived reliable by the customers [8]. Security and privacy is biggest obstacle to e-banking adoption [7]. Online communications and transactions are may be suspected for technology misuse and criminal acts [21]. If there is a security and privacy concern then customer will avoid making transaction by e-banking. Customers nowadays use E-banking as it saves their time and they don't have to travel to branch of bank for their money transactions [22]. On

the other hand, E banking also benefits the banks by offering low operational cost as a result of reduction in the number of staff members and bank branches required otherwise [23].

H5. Security and privacy is directly related to consumer acceptance of E banking.

The model is presented in Figure 1.

RESEARCH METHODOLOGY

A survey instrument was designed and data was collected in order to test our hypothesis. The response rate of respondents is 65 % as 207 questionnaires were returned back out of 319. Some questionnaires were also delivered to senior banking executives to check the validity of our survey, received their comments and amended accordingly. The target population for this study is Pakistani bank customers. The questionnaires were delivered at major banks at Lahore and Gujranwala. The questionnaire was given to every third customers. The customers include both adopters and non-adopters of E-banking.

Variable Measurement

Independent Variable

The five factors are captured by 21 items and each item was deliberated on five-point Likertscale.i.e. “1” is for “strongly disagree”, “2” is for “disagree”, “3” is for “neutral”, “4” is for “agree” and “5” is for “strongly agree”.

Dependent Variable

The dependent variable was formed on the basis of basic and other banking services used.

Data Analysis

Profile of Respondents

Close to 70% respondents are male. Approximately half of the respondents belonged to below age range and majority are highly educated i.e. postgraduate. About 45 % respondents are from low income level and about 42 % of respondents belonged to middle income level and rest are from high income level. The table 1 shows the demographic profile for study.

Table 1Demographic Profiles

Variables	Frequency	Percentage (%)
Gender		
Male	145	70.0
Female	62	30.0
Age(in years)		
Below 25	94	45.4
25-30	57	27.5
31-35	30	14.0
36-40	14	6.8
41-45	11	5.3
46-50	2	1.0
Qualification		
Below matric	2	1.0
Intermediate	19	9.2
Graduate	74	35.7
Post graduate	112	54.1
Income		
below 25000	94	45.4
25001-50000	54	26.1
50001-75000	33	15.9
75001-100000	16	7.7
100001 and above	10	4.8

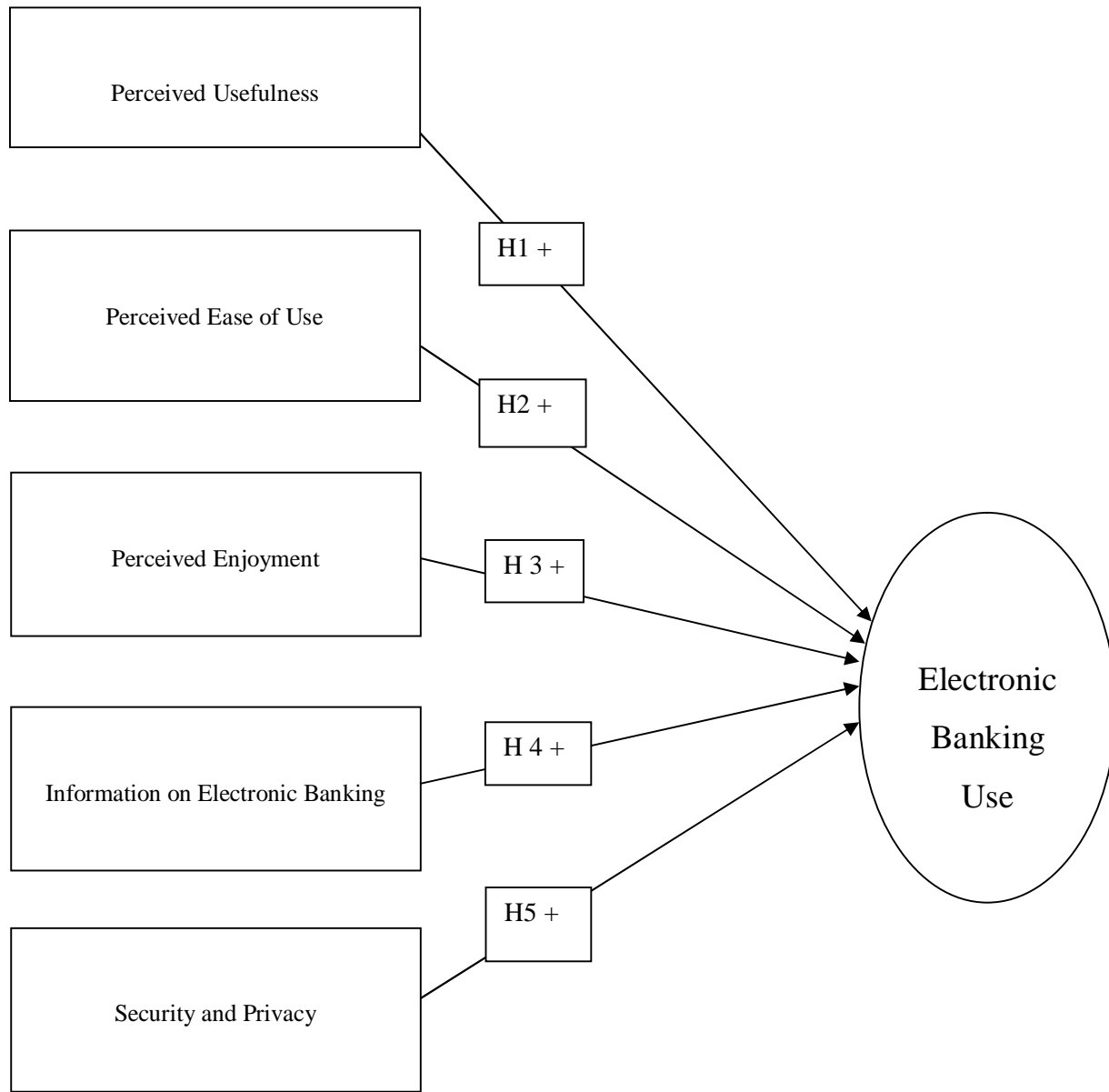


Figure 1 The Research Model

Factor Analysis

The factor analysis was conducted using the technique of principal axis factoring and varimax rotation is used as extraction method. Some variables are excluded from variable list as they do not fit on factor model. The excluded variables are from “Amount of Information” and “security and Privacy”. The factors are made on the basis of eigenvalues greater than 1. The Bartlett’s test was also run in order to confirm the correlation of variables among the factors. The KMO for this analysis is 0.824 which shows the appropriation of factor analysis.

The first factor “AMOUNT OF INFORMATION” has two variables having the value of cronbach’s alpha= .775. According to Peterson the value for alpha between 0.5 to 0.95(0.7 to 0.95 for basic research). Second factor “PERCEIVED USEFULNESS” has five variables with alpha = .717. Third factor “PERCEIVED EASE OF USE” has four variables with value of alpha= .887. The forth factor “PERCEIVED ENJOYMENT” has four variables with value of alpha = 0.793. The fifth factor “SECURITY AND PRIVACY” has two variables and the value for alpha for this factor is 0.81. All of above factors has acceptable value for alpha. The overall reliability of the factor analysis was 0.80. This factor model was used to analyse the acceptance of E-banking (Table 2 &3).

Table 2 Factors to analyse acceptance of E banking

Factors	Cronbach Alpha
Amount of information	0.775
Perceived usefulness	0.717
Perceived ease of use	0.887
Perceived enjoyment	0.791
Security and privacy	0.810

Table 3 Factor Analysis

VARIABLES	Amount of information	Perceived usefulness	Perceived ease of use	Perceived enjoyment	Security and privacy
I have generally received enough information about e-banking services.	.849				
I have updated information about e-banking products and their usage.	.885				
Using e- banking services enables me to utilize banking services more quickly		.851			
Using e- banking facilities improves my performance of utilizing banking products		.901			
Using e- banking for my bank services increases my productivity		.714			
Using e- banking enhances my effectiveness of utilizing banking services		.813			
Using e- banking makes it easier for me to utilize banking services		.846			
Learning to use e- banking is easy for me			.836		
I find it easy to do what I want to do in e-banking			.903		
My interaction with e- banking is clear and understandable			.876		
Overall, I find an online bank easy to use			.840		
Using e- banking is fun				.794	
Using e-banking is pleasant				.884	
Using e- banking is positive				.670	
Using e- banking is exciting				.804	
Using e-banking is financially secure					.886
I trust in the ability of e- banking to protect my privacy					.906
Eigenvalue	2.243	3.423	2.988	2.507	2.564

The regression analysis was also conducted in order to know the effectiveness of different factors on E banking use. While using regression analysis a multiple correlation difficulty was also minimized. In order to find the extent of effects in this study we used Cohen's Rules. According to this rule, if the value of R^2 lies in the range of 0.1% to 5.9 % the effect size of study will be small and for our study the effect size is also small as value of R^2 is 5.5 %. The value of $\beta = 0.12$ for "AMOUNT OF INFORMATION" and $\beta = 0.209$, so it can be concluded that the overall model was significant and only "AMOUNT OF INFORMATION" and "SECURITY AND PRIVACY" are statistically significant. The values of β for other variables are not large so these variables had no significant relationship with use of E banking. The results of regression analysis are shown in Table 4.

Table 4 Regression Analysis

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
	.235 ^a	.055	.032	.45321	
ANOVA Model					
	Sum of Squares	Df	Mean Square	F	Sig.
Regression	2.428	5	.486	2.364	.041 ^a
Residual	41.490	202	.205		

Total	43.918	207			
Coefficients^a					
	Unstandardized Coefficients	Standardized Coefficients	T	Sig.	
	B	Std. Error	Beta		
(Constant)	.282	.189		1.496	.136
Amountof information	.042	.027	.120	1.523	.129
Perceived usefulness	.015	.044	.028	.334	.739
Perceived ease of use	.044	.052	.079	.843	.400
Perceived enjoyment	.046	.056	.074	.825	.410
Security and privacy	.134	.048	.209	2.794	.006
a. Predictors: (Constant), SECURITYANDPRIVACY, AMOUNTOFINFORMATION, PERCEIVEDUSEFULNESS, PERCEIVEDENJOYMENT, PERCEIVED EASE OF USE b. Dependent Variable: EBANKINGUSE					

Correlation Analysis

We also run correlation analysis to test our assumptions. The results show that “**AMOUNT OF INFORMATION**” and “**SECURITY AND PRIVACY**” are significantly correlated with E banking Use as the value of Pearson correlation coefficient is 0.128 and 0.210. The results of correlation analysis are also shown at table IV. All other variables are not statistically significant and only our two hypotheses were supported. i.e. H4, H5. (Table 5)

Table 5 Correlation Analysis

	Security and privacy	Perceived enjoyment	Perceived ease of use	Perceived usefulness	Amount of information	E-banking use
Security and privacy	1					
Perceived enjoyment	.338**	1				
Perceived ease of use	.409**	.594**	1			
Perceived usefulness	.414**	.544**	.590**	1		
Amount of information	.266**	.416**	.496**	.499**	1	
Ebanking use	.128*	.081	.083	.039	0.210**	1
**. Correlation is significant at the 0.01 level (1-tailed).						
*. Correlation is significant at the 0.05 level (1-tailed).						

Summary and Conclusion

From a theoretical point of view the results contributed in a numerous ways. First, the article add to literature of E- banking by providing information on the factors that tell the acceptance of E- banking. The E-banking acceptance is affected by the information available on E- banking and its benefits. Privacy and security showed a strong relation with the E- banking acceptance. It was in contraction with past studies. As previously the acceptance of E- banking was based on perceived enjoyment (PE) and perceived usefulness (PU).

This study is beneficial for the managers to plan E- banking service selection and web sites. In the E banking services development, attention should be paid on other factors than relevant information and perceived usefulness. Banks should pay attention to advertising benefits of E banking with are more informative. The benefits of E-banking acceptance should be highlighted by marketing team. The financial institutions should may attentions to informative issues than only talking about brands.

There are some constraints in this research study. First, this study is only focused on Pakistani customers. But the customer's acceptance of E-banking in a developing country will be given insights through this study in Pakistan. Second, according to previous studies, the factor preferred may not cover all influencing reason on acceptance of E-banking. Therefore the factors associated to cultural issues can also be considered. Third the demographic profiles shows that respondents are young and from low income range so the further research can be done on the basis respondent from higher income and old age range. Lastly our relationship shows relationship among dependent and independent variable so further studies can be conducted to find causal relationship among independent variables also.

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