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Customer Attitude towards E-Banking Technology with Special Reference to Barnala District of Punjab

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Abstract

Technology innovations are having significantly importance in human life in general and in professional life in particular. The quick expansion of information technology has refined the life of millions of people. Banking is no exception these days. Considering the growing customer expectations at present time, banks and other financial institutions have incorporated online and mobile banking technology to ease customer's efforts. Innovations such as E-Banking technology have changed the critical structure of all banking system by lowering transaction cost. New E-Banking technology applications are used in mobile phones to check account balances, alerts and conduct other banking activities. The present study is based on to identify the factor affecting the Customer Attitude towards E-Banking Technology. One of the most important changes in the banking industry has been the customer movement from traditional branch banking to electronic banking such as E-Banking.

Index Terms: Mobile Banking, Internet Banking, ATM Services.

1. Introduction

Internet banking is easy reliable and convenient way to fulfill our banking needs. This Robert banking facility connects us with our banking at our convenience; we don't have to plan our day according to bank hours, no more waiting in queue. In this method, customer gets his bank account ID and Password and he or she can check his account, pay bill and print receipt through home personal computer, mobile etc which is connect with internet. E-Banking is development of today banking system. It refers to the provision of electronic banking services via internet through personal computer (PC) or any other device with internet capabilities.

From an economic standardization in communications and internal administration increasing customer

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convenience and functionally and reducing cost in back office and front desk banking functions. Internet banking gives customer the ability to access virtually any type of banking services in any place and time. Today technology has become an increasingly viral element in the competitive landscape of the financial service industry. The recent developments have created a totally new service concept and service environment. The emergence of the internet has a significant impact on the diffusion of electronic banking.

The present study has made an attempt to identify the customer attitude towards E-Banking services in the Punjab State by analyzing the sample of 100 customers. The factor analysis technique with rotated method was employed in order to extract the important factor (variables).

2. Review of Literature

(1) **M. Abdul Hakeem and Y. Moydheen Sha (2015)** in their analysis it was observed that majorly influenced factors such as convenience and responsiveness.

(2) **Vandana Tandon Khanna & Neha Gupta (2015)** Shows that the factors such as Technology acceptability, safety, availability, user friendliness and accessibility highly depend on the demographic characteristics.

(3) **Tavishi and Santosh Kumar (2013)** An Empirical Study on Technology Adoption of internet banking Influences of Perceived usefulness, perceived ease of use and perceived risk.

(4) **Sabita Paul (2013)** The Adoption of Electronic Banking like prompt technological revolution by the customer.

(5) **Neena Brar & Jaspreet Singh (2012)** study reveals that the perception of the consumers can be changed and made positive by friendly usage, fewer charges, and proper security.

(6) **Rahmath Safeena (2011)** factors influencing the Consumer's Adoption of Internet banking investigates the influence of Perceived Usefulness, Perceived Ease of use and Perceived Risk on use of Internet Banking.

(7) **Surat Singh (2013)** Customer Attitude towards Banking Technology is affected by Technology and Services, Promptness and Accuracy, Technology and Security and Technology and Convenience.

3. Data and Methodology

The study is based on primary data which has been collected through close ended questionnaire. The primary data required for the study has been collected from Barnala districts of Punjab State so as to make representatives of entire population. The convenience sampling technique has been used to select this district of Punjab. The sample size of 100 customers has been taken from among the population of who are using banking services. The questions related to socio-demographic characteristics such as gender, education level were also incorporated. The factor analysis technique with rotated method was employed in order to extract the important factors from a list of 10 continues variables which have been given below table-1. From this we designed a questionnaire to solicit customer's views on a five point scale, where 1= Strongly Agree, 2= Agree, 3=Neutral, 4= Disagree, 5= Strongly Disagree. The 17 version of SPSS has been used to analyze the collected data.

Table 1.

S. No.	Variables used for factor analysis
1	My bank service cost is minimum.
2	Feel safe and secure while using my bank's technology.
3	My bank service is fast and error free.
4	The behavior of my bank staff is good.
5	My bank's service timing is saving to me.
6	Easy to use my bank technology.
7	My bank's technology is personalized.
8	The risk associated with my bank's technology is low.
9	The technology of my bank is reliable.
10	My bank is easily accessible.

4. Data Analysis and Interpretation

Table 2. Sample Demographic Characteristics

Gender	Frequency	Percentages
Male	71	71.0
Female	29	29.0
Total	100	100.0
Age		
Less than 20	14	14.0
21-25	53	53.0
26-30	17	17.0
31-35	11	11.0
More than 35	5	5.0
Total	100	100.0
Education Level		
Metric	2	2.0
Secondary	12	12.0
Graduation	57	57.0
Post Graduation	29	29.0
Total	100	100.0
Types of Accounts		
Savings Account	85	85.0
Current Account	15	15.0
Total	100	100.0
Category of Banks		
Private Banks	55	55.0
Public Banks	45	45.0
Total	100	100.0

The study is revels that 71 percent respondents are male and 29 are female. About 67 percent respondents have average age is 25 or lower than 25 and 33 percent respondents are More than 25. Then respected to education level which is about 2 percent respondents are metric, 12 is secondary, 57 is graduation, 29 is post graduation. Then types of accounts which is about 85 percent has savings account and 15 has current account. About 55 percent respondents have account in private banks and 45 have account in public banks.

5. Empirical Results

Factor analysis technique has been used to obtain the empirical result. Factor analysis technique has been used to fins a small number of factors from large number of variable which are capable of explaining the observed variance in the large number of variables. There are some steps in factor analysis like:

(1)   First, a correlation matrix is generated for all the variables.
(2)   Second, factors are extracted from the correlation matrix based on the correlation coefficients of the variables.
(3)   Third, the factors are rotated in order to maximize the relation between the variables and some of the factors.

Table 3. Descriptive Statistics

	Mean	Std. Deviation	N
My bank service cost is minimum.	2.17	.711	100
Feel safe and secure while using my bank's technology.	2.17	.667	100
My bank service is fast and error free.	1.98	.635	100
The behavior of my bank staff is good.	2.06	.736	100
My bank's service timing is saving to me.	2.06	.633	100
Easy to use my bank technology.	1.99	.595	100
My bank's technology is personalized.	2.00	.711	100
The risk associated with my bank's technology is low.	2.29	.743	100
The technology of my bank is reliable.	1.86	.586	100
My bank is easily accessible.	1.97	.577	100

The study is revels that the mean, standard deviation and number of respondents who participated in the survey. From descriptive statistics two can conclude that the variable, 'The Risk associated with my bank's technology is low, My bank service cost in minimum and feel safe and secure while using my bank's technology' has the highest mean of 2.29, 2.17 and 2.17.

Table 4. Correlation Matrixes

	VAR 01	02	03	04	05	06	07	08	09	10
VAR 01	1.000	.194	.365	.308	.134	.291	.060	.020	.203	.111
02	.194	1.000	.651	.287	.358	.386	.170	.246	.397	.302
03	.365	.651	1.000	.283	.279	.347	.179	.291	.345	.329
04	.308	.287	.283	1.000	.252	.325	.212	.208	.324	.361
05	.134	.358	.279	.252	1.000	.351	.135	.178	.213	.199
06	.291	.386	.347	.325	.351	1.000	.287	.075	.170	.235
07	.060	.170	.179	.212	.135	.287	1.000	.153	.145	.074
08	.020	.246	.291	.208	.178	.075	.153	1.000	.187	.138
09	.203	.397	.345	.324	.213	.170	.145	.187	1.000	.346
10	.111	.302	.329	.361	.199	.235	.074	.138	.346	1.000

Determinant= 0.120

The study is revels that the value of the determinant of the correlation matrixes is 0.120. This is fit for factor

analysis. Thus; we proceed to the factor analysis. The value of the determinant should be at least 0.000001 for the factor analysis. The value of the determinant in our study is 0.120 allow us to carry with factor analysis. The value of the determinant is greater than 0.000001 shows that there is no problem for the data reduction method in the study. In other words if at least 33 percent of the correlation coefficients are positive then we can say that correlation among the variables are positive.

Table 5. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.771
Bartlett's Test of Sphericity	Approx. Chi-Square	201.338
	Df	45
	Sig.	0

1) The KMO measures the sampling adequacy test which should be greater than 0.500 for a satisfactory factor analysis to proceed. In our study, this value is 0.771 which allow us to proceed for factor analysis.
2) Bartlett's test is another measure of the strength of the relationship among variables. We would like to reject this null hypothesis, because for data reduction, But in our study test value is less than 0.05 thus we can proceed for data reduction.

Table 6. Communalities

	Initial	Extraction
My bank service cost is minimum?	1	0.644
Feel safe and secure while using my bank's technology?	1	0.582
My bank service is fast and error free?	1	0.585
The behavior of my bank staff is good?	1	0.406
My bank's service timing is saving to me?	1	0.344
Easy to use my bank technology?	1	0.65
My bank's technology is personalized?	1	0.665
The risk associated with my bank's technology is low?	1	0.607
The technology of my bank is reliable?	1	0.495
My bank is easily accessible?	1	0.458

The study is revels that how much of the variance in the variables has been accounted for the extracted variables (factors). In our study about 66 percent of the variance in the variables, my bank's technology is

personalized and 65 percent of the variance in the variables, the easy to use my bank technology is accounted for extracted factors and so on, as shown in the table-6 given above.

Table 7. Total variance Explained

Comp onents	Initial Eigen-values			Extraction Sum of Squared Loadings			Rotation Sum of Squared Loadings		
	Total	% Variances	Cumulative %	Total	% Variances	Cumulative %	Total	%Variances	Cumulative%
1	3.342	33.416	33.416	3.342	33.416	33.416	2.613	26.128	26.128
2	1.065	10.646	44.063	1.065	10.646	44.063	1.704	17.044	43.172
3	1.030	10.297	54.360	1.030	10.297	54.360	1.119	11.188	54.360
4	.920	9.198	63.558						
5	.863	8.631	72.189						
6	.780	7.798	79.987						
7	.677	6.770	86.757						
8	.525	5.249	92.006						
9	.506	5.060	97.065						
10	.293	2.935	100.000						

The study is revels that the Eigen value associated with each linear component (factor) before extraction, after extraction and after rotation, before extraction SPSS had identified 10 linear components within the data set. In our study before extraction the Eigen value in terms of percentage of the variance explained about 33.41 percent of the total variance. SPSS extract all factors with Eigen values greater than 1, which leaves us with three factors, before rotation, factor 1 accounted for considerably more variance than other remaining two (33.41% compared to 10.64 and 10.29%) But after extraction it accounts for 26.12 of variance compared to 17.04 and 11.18%) in the given table above that about 54.36% of the total variance has been explained the three factors extracted and all other remaining factors are not significant.

Table 8. Rotated Component Matrix

	Component		
	1	2	3
My bank service cost is minimum?			0.723
Feel safe and secure while using my bank's technology?	0.685		
My bank service is fast and error free?	0.697		
The behavior of my bank staff is good?	0.503		
My bank's service timing is saving to me?			
Easy to use my bank technology?		0.671	
My bank's technology is personalized?		0.801	
The risk associated with my bank's technology is low?			-0.596
The technology of my bank is reliable?	0.703		
My bank is easily accessible?	0.674		

Extraction Method: - Principal Component Analysis.
Rotation Method: - Varimax with Kaiser Normalization.

There are several things to consider about the format of this matrix. First factor consider less than 0.5 have not been displayed because we asked for these factors to be suppressed.

Using the factor loadings, the banking attributes were grouped into their respective factors and were named according to collective representation. The main findings of the study have been summarized as follows:

Factor 1

First factor consist of five variables, feel safe and secure while using my bank's technology (0.685), My bank service is fast and error free (0.697), the behavior of my bank staff is good (0.503), the technology of my bank is reliable (0.703) and my bank is easily accessible is (0.674) factors loading. The total variance explained by factor 1 is 33.41 percent. This is named as 'Technology, Promptness, reliable and accessible'.

Factor 2

Second factor consist of two variables, Easy to use my bank technology (0.671), my bank's technology is personalized (0.801) factor loadings. The total variance explained by factor 2 is 10.64 percent. This is named as 'Technology and Personalized'.

Factor 3

Third factor consist of two variables, my bank service cost is minimum (0.723), the risk associated with my bank's technology is low (0.596) factor loadings. The total variance explained by factor 3 is 10.29 percent. This is named as 'Technology and Services'.

6. Conclusion

The present study is based on to identify the factor affecting the Customer Attitude towards E-Banking Technology. The primary data required for the study has been collected from Barnala districts of Punjab State so as to make representatives of entire population. The convenience sampling technique has been used to select this district of Punjab. The sample size of 100 customers has been taken from among the population of who are using banking services. The 71 percent respondents are male and 29 are female. About 67 percent respondents have average age is 25 or lower than 25 and 33 percent respondents are More than 25. Then respected to education level which is about 2 percent respondents are metric, 12 is secondary, 57 is graduation, 29 is post graduation. Then types of accounts which is about 85 percent has savings account and 15 has current account. About 55 percent respondents have account in private banks and 45 have account in public banks. The 17 version of SPSS has been used for analysis purpose.

The factor analysis technique has been used and the factor analysis using principle component extraction method with varimax rotation has extracted three factors which explained the 54.36 percent of the total variance. First factor consist of five variables, feel safe and secure while using my bank's technology (0.685), My bank service is fast and error free (0.697), the behavior of my bank staff is good (0.503), the technology of my bank is reliable (0.703) and my bank is easily accessible is (0.674) factors loading. The total variance explained by factor 1 is 33.41 percent. This is named as 'Technology, Promptness, reliable and accessible'. Second factor consist of two variables, Easy to use my bank technology (0.671), my bank's technology is personalized (0.801) factor loadings. The total variance explained by factor 2 is 10.64 percent. This is named as 'Technology and Personalized'. Third factor consist of two variables, my bank service cost is minimum (0.723), the risk associated with my bank's technology is low (0.596) factor loadings. The total variance explained by factor 3 is 10.29 percent. This is named as 'Technology and Services'. Here we found that a few important factors attracts the customer more in using the bank's technology followed by variable 'My bank service is fast and error free, My bank's technology is personalized and My bank service cost is minimum'.

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