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## **Factors Influence On Privacy Issues In The E- Banking Websites - A Study With Reference To Commercial Banks In Theni District**

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### **ABSTRACT**

This paper gives a brief analysis of the factor influence on privacy issues in the e-banking websites in commercial banks at Theni District. This study is an empirical research. The primary data were collected by personal interview of the selected respondents by using interview schedule. The primary data were collected from the bank customers directly during the month of August 2020 to January 2021. The researcher used convenient sampling method to collect data from the sample respondents. First hand data were collected from the respondents directly by the researcher himself with the help of an interview schedule. Percentage analysis and rotated matrix were used to analyse the data. This paper reveals that out of twenty six variables the Six factors were extracted namely "Familiarity of cyber crimes", "Trust", "Perceived risk", "Security Concern". All the attributes are formed under each factor had high associations. High value of Kaiser-Meyer-Olkin measure of sampling adequacy (0.776) indicates the correlation between the pairs at variables explained by other variables and thus factor analysis was considered to be appropriate in this model. Cronbach's Alpha is more than 0.64 in all factors. The researcher interested to find out what are the factors influence the privacy issues in the E-banking websites of commercial banks in Theni district. Finally conclusions were drawn and suggestions were offered.

**Keywords:** Privacy issues, E-banking websites

### **INTRODUCTION**

Indian banking industry has undergone tremendous changes ever since its origin in Indian soil. "Money makes money" is the basic idea of banking business. Banking sector as a whole takes a different form and structure over a period of its growth keeping its core business of "accepting deposits from public for the purpose of lending" intact. Inevitably this basic business function itself has to adopt more sophistication in order to achieve the twin objectives of conceptualisation the whole lot of banking function so as

to make it more affordable to common man and to achieve the maximum return on investment (ROI) under the present competitive environment.

Originally the commercial banks in India were established under the private sector, Infact, they were intended to serve a few selected groups of people. Over the period of time, the scope of banking business has widened to serve thousands and thousands of people but still there is a large number of people entering into banking premises itself was only a dream. Interestingly the size and volume of banking companies were increasing on the one hand and the number of banking failures was also increasing on the other. Only in 1969 and shortly thereafter major banking companies in India were nationalised in order to accumulate national resources and to channelize them towards more productive activities. This radical change facilitates to extend the banking function to all knocks and corners of the country to cater the needs of both “haves and have nots” equitably and judicially. All barriers in opening new branches have been removed and India becomes one of the counties having best banking system all over the world.

In the mean time, the banking technology has been undergone tremendous changes all over the world due to information technological revolution. Further, core changes become inevitable to face the change reposed by new developments triggered by the entry of private and foreign banks in to India. The liberalization process initiated by the government of India has also brought about technological up gradation in financial sector as a whole. As a result, state-of- art technology is bound to be adopted in addition to the automating antiquated process. Speed and accuracy with which the financial data are processed due to the application of information technology offers the banking sector an opportunity to cope with information explosion. Recent development in the Indian political scenario also which altered the edifice of financial structure through the introduction of a new way of taxation (GST) replacing the conventional one and demonetization has also made great impact. No need to say print all this developments involved heavy capital investments in the form of sophisticated infrastructure facility as well as well trained man power forces. Apart from these the potential threat to be encountered by the inherent features in the form of cyber crime coupled with ignorance of customers, being vast majority of banking customers are still computer illiterate or lagging technical the usages of technical peripherals for their banking uses.

## **STATEMENT OF THE PROBLEM**

To day banking functions have achieved a spectacular growth all over the world more so in India. The nationalization of commercial banks and entry of private and foreign third generation banks have facilitated the adoption of new techniques emanated out of information technogical boom in banking business. Almost all the functions of banks are computerized and customers personal contract has been narrowed down to a very little extent. Today customers need not go to banking premises for basic banking services. Modern technology has provided many opportunities to ease out complications and

difficulties that were so far faced by common banking customers. At the same time new issues are erupted out due to the implementation of modern technologies. Security issues, legal issues and issues related consumers education in utilizing the banking services are the common challenges to be encountered by the over all customers in general and customers living in rural areas in particular. Therefore, a study of factor influence on privacy issues of commercial banks to their customers is felt necessary as it is socially relevant. Hence the present study.

### **OBJECTIVES OF THE STUDY**

To analysis the factors influence on privacy issues in the e- banking websites of commercial banks in Theni District

### **REVIEW OF LITERATURE**

Amutha D ( 2016), In her article deals the consumers perception towards e-banking system related to consumer awareness towards e-banking system with special reference to Tuticorin District of Tamilnadu. It is found that 36.67% of the respondents income levels are up to Rs. 1,00,000, 52.22% of the respondents are Rs. 1,00,001 to Rs. 3,00,000 and 11.11% respondents are belonging to above Rs. 3,00,000 and the average income is 167222. The study reveals that, the opinion of customers on future expectations. Out of the total respondents, Majority (i.e.) 58.89% of the sample respondents have mentioned that they would like operate their banking transactions in a core banking environment which is free from neither technical intervention such as computer connecting nor 23.33% of the samples respondents expect the bank will provide security. 17.78% of the sample respondents have stated reasonable charges have to be imposed on their banking transaction. The main difficulty for using the E-banking facility is less knowledge about the operations of banking facility (50%).<sup>1</sup>

May Wang , Stella Cho , Trey Denton, (2017) The results indicated that personalization leads to increased performance expectancy and decreased effort expectancy, which in turn lead to increasing intention to continue to use e-banking services. In addition, compatibility with previous e-banking experience and personalization produces an interaction effect on both performance expectancy and effort expectancy.<sup>2</sup>

Dipa Mulia , Hardius Usman, Novia Budi Parwanto, (2020), the study deals with Customer intimacy not only encourages the emergence of customer loyalty directly, but also affects the factors that determine customer loyalty itself, such as perceived usefulness, perceived ease of use, perceived risk, trust, sharia compliance and satisfaction. In other words, customer intimacy has a direct and indirect influence on loyalty.<sup>3</sup>

### **SAMPLING DESIGN**

Since the study was concerned with the factors influence on privacy issues in the e-banking websites of commercial banks in Theni district the researcher obtained the e-banking website of state bank of India. The sample size taken up for the limited to one  
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fifty (150) e-banking users of State Bank of India the researcher used convenient sampling technique. Convenient sampling refers to selecting a sample of study on objects based research convenience. However care was taken that all classes of customer such as salaried employee, businessman, professionals and household.

## FIELD WORK AND COLLECTION OF DATA

Fieldwork for the study was conducted from August 2021 to January 2022. The primary data were collected by personal interview of the selected respondents by using an interview schedule. Before starting the actual data collection, the respondents were familiarised with the purpose and the objectives of the present study. The interview was quite informal and was in a conversational style. The interview schedule was administered in the vernacular language and the data were recorded by the researcher in the interview schedule. The interviews were conducted individually with each respondent, so as to avoid bias in response. Every possible care was taken to ensure the accuracy and reliability of information.

## Analysis and Interpretation

**Table 1: Demographic Consideration of the Respondents**

<b>1. Age</b>	<b>No. of Respondents</b>	<b>Percentages</b>
Below 30	18	12.00
30-40	65	43.33
40-50	39	26.00
Above 50	28	18.67
Total	150	100
<b>2. Gender</b>	<b>No. of Respondents</b>	<b>Percentages</b>
Male	97	64.67
Female	53	35.33
Total	150	100
<b>3. Level of Education</b>	<b>No. of Respondents</b>	<b>Percentages</b>
Graduate	53	35.33
Post Graduate	61	40.67
Professional	36	24.00
Total	150	100
<b>4. Occupation</b>	<b>No. of Respondents</b>	<b>Percentages</b>
Private Employee	113	75.33
Government employee	37	24.67
Total	150	100
<b>5. Marital Status</b>	<b>No. of Respondents</b>	<b>Percentages</b>
Married	132	88.00
Unmarried	18	12.00

Total	150	100
<b>Income Month</b>		
Below 25000	23	15.33
25000-50000	84	56
50000-100000	36	24
Above 100000	7	4.67
	150	100
<b>6.Types of account</b>	<b>No. of Respondents</b>	<b>Percentage</b>
Saving bank account	79	52.70
Current account	58	38.62
Fixed deposit account	13	8.68
<b>Total</b>	<b>150</b>	<b>100.00</b>
<b>7.Daily transactions times</b>	<b>No. of Respondents</b>	<b>Percentage</b>
Up to 2	39	26
Between 3 and 5	68	45.33
Above 5	43	28.67
<b>Total</b>	<b>150</b>	<b>100</b>

**Source: Primary Data**

It is evident from Table 1 that a maximum of 43.33 per cent of the respondents are in the age group of 30-40 years, followed by 26.00 per cent of the respondents who are of 40-50 years, respondents with 12.00 per cent are of below 30 years, respondents with 18.67 per cent are above 50 years. The 64.67 per cent of the respondents are male and remain 35.33 per cent constituted female consumers. The out of 150 respondents, a maximum of 40.67 per cent of the respondents are Post Graduates, 35.33 per cent of the respondents are Graduates. The respondents with only Professional level constitute 24.00 per cent of the total. The maximum of 75.33 per cent of the respondents are Private employee, followed by 24.67 per cent of the respondents are Government employee. The out of 150 respondents, a maximum of 88.00 per cent of the respondents are Married, 12.00 per cent of the respondents are Unmarried. The out of 150 respondents 52.70 per cent them are savings account holders and 38.62 per cent of them are current account holders. The out of 150 respondents 45.33 per cent them are Between 3 and 5 time of daily transaction and 28.67 per cent of them are above 5 time.

## **FACTOR ANALYSIS**

As some of the statements have common components which correlated with one another because of the common factors. To find out the inter-relationship, factor analysis technique is to be adopted.

Factor analysis a tool applicable, when there is a systematic interdependence among a set of observed of manifest variables and the person is interested in finding out something more fundamental or latent which creates this communality. It seeks to

resolve a large set of measured variables, in terms of relatively few categories, known as factors. A factor is an underlying dimension that accounts for several observed variables.

The meaning and name of such new variable is subjectively determined by the researcher. Since the factors happen to be linear combinations of data, the co-ordination of each observation or variable is measured to obtain the factor loadings. Such factor loadings represent the correlation between the variables and factors. When the sum of squared values of factors loadings relating to a factor is taken, such sum is referred to as eigen value or latent root. Eigen value indicates the relative importance of each factor in accounting for the particular set of variables being analysed. For realistic results, the technique of rotation is adopted, because such rotation reveals different structures in the data.

Mathematically, factor analysis is somewhat similar to multiple regression analysis. Each variable is expressed as a linear combination of under-lying factors. The amount of variance, a variable share with all the other variables included in the analysis is referred to as communality. The co-variation among the variables is described in terms of a small number of common factors plus a unique factor for each variable. These factors are not observed. If the variables are standardised, the factor model may be represented as:

$$X_i = A_{i1}F_1 + A_{i2}F_2 + A_{i3}F_3 + \dots + A_{im}F_m + V_iU_i$$

Where,

- $X_i$  =  $i^{\text{th}}$  standardised variable
- $A_{ij}$  = Standardised multiple regression co-efficient of Variable I on common factor j
- $F$  = Common factor
- $V_i$  = Standardised regression co-efficient of variable I on unique factor
- $U_i$  = The Unique factor for variable i
- $M$  = Number of common factor

The unique factors are uncorrelated with each other and the common factors themselves can be expressed as linear combinations of the observed variables.

$$F_i = W_{i1}X_1 + W_{i2}X_2 + W_{i3}X_3 + \dots + W_{ik}X_k$$

Where,

- $F_i$  = Estimate of  $i^{\text{th}}$  factor score co-efficient
- $W_i$  = Weight of factor score co-efficient
- $K$  = Number of variables

It is possible to select a weight or factor score co-efficient, so that the first factor explains the largest portion of the total variance. Then a second set of weights can be selected so that the second factor accounts for most of the residual variance, subject to being uncorrelated with the first factor. The same principle could be applied for selecting additional weights for the additional factors. Thus the factors can be estimated so that

their factor scores, unlike the value of original value, are not correlated. Furthermore, the first factor accounts for the highest variance in the data, the second highest and so on.

The objective of factor analysis is dimension reduction to reduce the large set of correlated variables to few uncorrelated factor forming linear combinations of the variables. This helps to avoid redundancy.

Kaiser-Meyer-Olkin Measure of Sampling adequacy.	=	0.741
Bartlett's test of Sphericity		
Approx Chi-Square	=	812.350
Degrees of freedom	=.	190
Significance	=	0.000

The KMO and Bartlett Test shows us that the number of sample taken were adequate for academic perspective although it is ideal that it should be closer to the research shows a KMO value of 0.741 which is adequate. Along with the KMO value the level of significance should be less than 0.05, and this research has a good 0.000 level of significance.

The rotated factor matrix motivated to start business is given in Table 2

### **Factors Motivated the Respondents to Start Business**

The factor analysis of the thirty four attributes relating to the factors motivated the respondents to start business with ten factors and the results are presented in Table 2.

**Table 2 : Rotated Factor Matrix for Factors Motivating to Start Micro Enterprises**

Sl. No	Name of the Factors	Variables	Eigen Value	Percentage of Variance	Factor Loadings	Communality
1	Security Concern	Face the any problems after problems	3.573	7.9	0.746	0.59
2		Comfortable that websites			0.733	0.59
3		Know of past searches and suggest			0.715	0.62
4		Find physical store important			0.707	0.66
5		Find it safe to store debit credit card information			0.646	0.59
1	Trust	Recommend them to others	2.642	7.6	0.757	0.69
2		Likely to use For good layout and appearance			0.669	0.59
3		Find the website easy to navigate			0.493	0.68
4		Comfortable using any browser			0.436	0.54
5		Friends and family recommend e banking			0.453	0.69
1	Familiarity of cyber crimes	Familiarity with identity theft	2.573	7.2	0.771	0.62
2		Familiarity with password sniffing			0.757	0.59
3		Familiarity with account takeover			0.721	0.56
4		Familiarity with spyware			0.693	0.55
5		Familiarity with phishing			0.681	0.54
1	Perceived Risk	Find no threat to personal information	2.396	6.8	0.816	0.74
2		Find product information correct			0.754	0.69
3		Feel safe paying online			0.530	0.51



4		Comfortable using non-familiar of e banking website			0.428	0.45
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**Source: Computed Data**

### **Factor 1: Security Concern**

Among the variables of customer perception on privacy issues in the E-banking website, namely '**Security Concern**', the variables such as 'Face the any problems after problems', 'Comfortable that websites', 'Know of past searches and suggest' 'Find physical store important', and Find it safe to store debit credit card information. constituted Factor 1 with higher factor loadings. These five variables on Factor 1 are characterised as consumer perception on privacy issues in the e-banking websites. All the five attributes have a high communality indicating that the attributes within Factor 1 have very high association.

'Face the any problems after problems' came first with the highest factor with the loading of 0.746 and a communality of 0.59 under 'Comfortable that websites' and 'Know of past searches and suggest' came last as the least factor with the loading of 0.715 and a high communality of 0.62.

### **Factor 2 : Trust**

Among the variables of expectations of customer, namely 'Recommend them to others', 'Likely to use for good layout and appearance', 'Find the website easy to navigate', 'Comfortable using any browser' and 'Friends and family recommend e-banking'. constituted Factor 2 with higher factor loadings. These five variables on Factor 2 are characterised as economic background. All the five attributes have a high communality indicating that the attributes within Factor 2 have very high association among them.

Regarding the factor Trust the variable 'Recommend them to others' was the first highest factor with the loading of 0.757 and a high communality of 0.690 and 'Friends and family recommend e banking' was the least factor with the loading of 0.453 and a low communality of 0.691.

### **Factor 3: Familiarity of cyber crimes**

Among the variables of expectations of consumer namely 'Familiarity of cyber crimes', the variables such as 'Familiarity with identity theft', 'Familiarity with password sniffing', 'Familiarity with account takeover', 'Familiarity with spyware' and 'Familiarity with phishing' constituted Factor 1 with higher factor loadings. These five variables with higher factor loadings on Factor 1 is characterised as 'Familiarity of cyber crimes'. All the four attributes have a high communality indicating that the attributes within Factor1 have very high association among them.

Regarding the factor Familiarity of cyber crimes the variable 'Familiarity with identity theft' was the first highest factor with the loading of 0.771 and a high communality of 0.620 and 'Familiarity with phishing' was the least factor with the loading of 0.681 and a low communality of 0.54.

### **Factor 4: Perceived Risk**

Among the variables of customer perception on privacy issues in the E-banking website, namely '**Perceived Risk**', the variables such as 'Find no threat to personal information', 'Find product information correct', 'Feel safe paying online', and 'Comfortable using non-familiar of e banking website'. constituted Factor 4 with higher factor loadings. These four variables on Factor 3 are characterised as perceived risk. All the four attributes have a high communality indicating that the attributes within Factor 3 have very high association among them. Regarding the factor financial institution the variable 'Find no threat to personal information' was the first highest factor with the loading of 0.816 and a high communality of 0.740 and 'Comfortable using non-familiar of e banking website' was the least factor with the loading of 0.428 and a low communality of 0.450.

The Eigen value for the first factor Security Concern is 3.573, which indicates that the factor contains much higher information than the other factor. The percentage of variance is 7.9. Security Concern provides maximum insights into the respondents in the study area.

The second and third factors namely Trust and Familiarity of cyber crimes for 7.6 and 7.2 per cent variance with Eigen values of 2.642 and 2.573 respectively. The fourth factors namely Perceived Risk 6.8 per cent variance with Eigen values of 2.396.

## **CONCLUSION**

This study has identified four factors that are significant in studying the user perception of security issues in e-banking websites of state bank of India. It has also identified significant variables under these four factors. It is concluded from the findings of the study that there is a significant difference in the familiarity levels on the cyber-crimes and the privacy issues associated with them based on the usage frequency of internet and e-banking portals. The more a user uses internet and the e-banking sites, the more respondent familiar with the cyber threats and conversely the new users are less familiar with the cyber threats. So, the e-banking websites should take special initiatives to educate their new customers on the cyber threats and the precautions the user needs to take. Also, the e-banking websites should identify the less frequency users and should enhance their understanding on the cyber threats. This initiative of education to the new and less frequent users will enhance the trust of the users on the e-banking site and there by resulting in improved business generation.

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