Customer Access to the Payment Banking Technology with Special Reference to Theni District

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Abstract

This research paper an attempt has been made to examine the sample customers' access the payment banking by using Factor Analysis. The main objective of the paper is to analysis the factors influence the customers access the payment banking in Theni District. This study is empirical research. Data were collected from hundred fifty respondents were selected by using a convenient random sampling technique. The researcher used a convenient sampling method to collect data from the sample respondents. First hand data were collected from the bank customers by the researcher himself with the help of an interview schedule. Secondary data are collected from journals, maganize, newspapers, and relevant books and web site. Percentage analysis and rotated matrixwereused to analyse thedata. This paper reveals that out of thirteen variables the four factors were extracted namely "Safety", "Reliability", "Utility", and "Perceived", All the attributes are formed under each factor had high associations. High value of Kaisar-Meyer-Olikin measure of sampling adequacy (0.6921) 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 0.65 in all factors.

***Keywords**: Payment Banking, Rotated Factor Matrix*

Introduction

In recent years the banking industry around the world has undergone a rapid transformation. The financial sector is considered the most affected by the proliferation of new technologies, particularly payment banking. Banks of all sizes are choosing to run their business digitally since this new medium offers distinct advantages to all parties involved. Through this, banks can reduce their costs and expand their markets, sousers can enjoy a variety of services.

Digitalization of retail banking is of course not a new development. Online solutions andservices have existed almost a century ago, gradually driving banks beyond mere multi-channel strategies, with internet access becoming more global and more widely used. In the comingyears, however, mobile users will become the centre of payment banking, with improved technology, smartphones and tablets become more widespread. More than half of the mobile devices sold today are smartphones, and more than 80% in 2020 Mobileis the cornerstone of the digital strategy to move forward, as Mobile becomes the first customer contact point. The spread of mobile banking creates what we call the new "gold rules" of retail banks in their quest to meet customer expectations in banking products and services. The main objectives of payment banking are Providing small savings account, Payment/ remittance services to the migrant labour workforce, low income households, small businesses, other unorganised sector entities and other users, by enabling high volume-low value transactions in deposits and payments/remittance services in a secured technology-driven environment.

Payments Banking: Eminence in India

Payments bankis an Indiannew model of banks conceptualised by the Reserve Bank of India (RBI). These banks can accept a restricted deposit, which is currently limited to 100,000 per customer and may be increased further.[1] These banks cannot issue loans and credit cards. Both current accounts and savings accounts can be operated by such banks. Payments banks can issue ATM cards or debit cards and provide online or mobile banking. On 23 September 2013,Committee on Comprehensive Financial Services for Small Businesses and Low Income Households, headed by Nachiket Mor, was formed by the RBI.[2] On 7 January 2014, the Nachiket Mor committee submitted its final report.[3] Among its various recommendations, it recommended the formation of a new

category of a bank called payments bank.[4] On 17 July 2014, the RBI released the draft guidelines for payment banks, seeking comments from interested entities and the general public.[5] On 27 November, RBI released the final guidelines for payment banks.[6] In February 2015, RBI released the list of entities that had applied for a payments bank license. There were 41 applicants.[7] It was also announced that an external advisory committee (EAC) headed by Nachiket Mor would evaluate the license applications.[8] On 28 February 2015, during the presentation of the Budget, it was announced that India Post will use its large network toruna payments bank.[9] The external advisory committee headed by Nachiket Mor submitted its findings on 6 July 2015. The applicant entities were examined for their financial track record and governance issues.[10] On 19 August 2015, the Reserve Bank of India gave "in-principle" licences to eleven entities to launch payments banks.[10] The "in-principle" license was valid for 18 months within which the entities mustfulfill the requirements and they were not allowed to engage in banking activities within the period. The RBI will grant full licenses under Section 22 of the Banking Regulation Act, 1949, after it is satisfied that the conditions have been fulfilled.[10] March 2019 witness, Paytm account for over 19% of all mobile banking transactions while Airtel's Payments Bank contributed more than 5% to the 867 million transactions made during the month. In contrast, the State Bank of India (SBI), the largest lender in the country by assets, recorded 145 million transactions, accounting for under 17%. The only banks ahead of Airtel Payments Bank are SBI and the three largest private-sector banks – HDFC Bank, ICICI Bank and Axis Bank. Indeed, ICICI Bank saw close to 60 million mobile banking transactions in March 2019 though it was just a whisker ahead of Airtel, with under 7% of the market.[11] Paytm Payments Bank and Airtel PaymentsBank together command over 88% of the deposits in payment banks in India in 2018. The following Services Payment banks cannot offer, As per RBI guidelines, these payment banks cannot issue credit cards, Payment bank cannot deal any kind of lending business i.e. they are not allowed to issue any kinds of loans like personal loans or any other loans to their customers, Payment banks cannot accept deposits from Non Resident Indians or NRIs, They are not allowed to set up subsidiaries for undertaking non banking financial services.

Objective of the Study

To analyse factors influencing the customer access to the payment banking Technology in Theni District

Statement of Problem

The average customer of today finds lesser time than usual to make purchases online. This has been the main reason why theonline shopping model has become such as success in the world. The risk that is associated with online shopping mainly is related to the payment and privacy issues that come out of having personal information on the net. Payment banks can also accept demand deposits (only current account & savings accounts) with a calling limit of Rs.1 lakh per customer. Payment banks must pay interest at the rate notified by the RBI. Payment banks can issue debit cards but not credit cards. Payment banks cannot engage in lending services i.e. they cannot provide loans, thus phasing out the fear of NPA. The deposit up to Rs.1 lakh is insured by the DICGC (Deposit Insurance and Credit Guarantee Corporation) same as in bank account. Payment banks cannot involve in any kind of credit risk and can only invest in less than one year G-Secs or treasury bills. Payment bank will charge a fee as a commission. This will be the sole earning for the banks. Payment banks will also have to maintain CRR (cash reserve ratio) just like other scheduled commercial banks. Does this study aim to find out what are the factor influencing to access payment banking in Theni District?

Methodology

The present study is largely based on the primary data. Required primary data have been collected in the course of an interview with the customers through a survey method with a pre- tested, well-structured and non-disguised Interview Schedule. This study is empirical based on the survey method. The present study is confined to Theni District. 190 samples were taken to analyses the data. A convenient sampling method was used to collect the data from the sample respondents. This study has been undertaken mainly to analyses the customer services inpayment banks with special

references to Theni District. As far as the primary data are concerned, the fieldwork was carried out from June 2019 to February - 2020.

Limitations

This study has the following limitations. The study is taken from a limited sample and not from the whole population. Due to a limited period, the samples are also found to be a limited one.

Result and Discussions

Table 1 Demographic Consideration of the Respondents

Variables/ Classification	No.of Respondents	%
Gender		
Male	121	64
Female	69	36
Age		
20-30	61	32
30-40	76	40
40-50	33	17
Above50	20	11
Marital Status		
Married	116	61
Unmarried	74	39
Occupational Level		
Business	67	35
Agriculture	13	7
Professional	40	21
Government Employee	42	22
Private Employee	28	15
Educational		
School	29	15
Diploma	29	15
Undergraduate	58	31
Postgraduate	40	21
Professional	34	18
Income Group		
Less than 10000	27	14
10000-15000	60	32
15000-20000	67	35
20000-25000	24	13
Above–30000	12	6

Source: Primary Data

Table 1 that out of 190 respondents, 121 (64 %) respondents are male and 69 (36 %) are female. 61 (32 %) respondents belong to the age group of 20-30 years, 76 (40 %) respondents come under the age group of 30-40 years, 33 (17 %) belong to the age group of 40-50 years and only 20 (11%) respondents are above50 years. Among 190 respondents 116 (61%) respondents are married and remaining 74 (39%) respondents are unmarried. Out of 190 respondents 67 (35 %) respondents are business people, followed by 42 (22 %) government Employee, 40 (42%), Professional, 28 (15%) Private Employee and 13 (7%), Agriculture. 58 (31%) respondents are undergraduates, 40 (21%) are post graduate, 34 (18%) are Professional, 29 (15%) respondents are educated upto school level as well as Diploma Level. The 67 (35%) of the respondents are in the income group of Rs. 15,000-20,000,60 (32%) respondents come under the group of Rs.10,000 – 15,000 level, 27 (14 %) respondents have got below Rs.10,000, 24 (13%) respondents come under the group of Rs.20,000 – 25,000 and only 12 (6%) are in the income group of above Rs.30,000.

Tool and Analysis

Mathematically, factor analysis is somewhat similar to multiple regression analysis. Each variable is expressed as a linear combination of underlying factors. The number of variables has included in the analysis is referred to as communality. The Co-variations 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 over observed. If the variables are standardised, the factor model may be represented as:

$$Xi=AijFi+Ai2F2+Ai3F3+ +AimFm+ViUi$$

Where Xi =i th standardized variable

Aij = standardized multiple regression coefficients of variable I on common Factor

F = Common factor

Vi = Standardized regression coefficient of variable I on unique

Ui = The unique factor for variable i

m = Number of acommon factor,

The unique factors are uncorrelated with each other and with the common factor. The common factor

themselves can be expressed as linear combination of the observed variables.

F1 =W1 1X1+W12X2+W13X3++W1K+XK

Where

F1 = Estimate of ith factor

W1 = Weight or factor score coefficient

K = Number of variables

It is possible to select weights factor score coefficient so that the first factor explains the largest portion of the total variance. Then second set of weights can be selected so that thesecond factor accounts for most of the residual variance, subject to be uncorrelated with the first factor. This some principle could be applied for selecting an additional weight for the additional factors. Thus, the factors can be estimated so that their factor score, unlike the value of the original variables, is not correlated. Furthermore, the first factor accounts for the highest variance in the data, the second factor is the second highest and so on.

Results and Discussion

There are twenty variables exacted into six factors. The rotated component matrix is given in Table 2

Table 2 Rotated Factor Matrix for Influence the Customer Access to Payment Banking

S.No	Variables	Factor 1	Factor 2	Factor 3	Factor 4
1	Find it safeto store debit/credit card information	0.829	-0.081	-0.095	-0.040
2	Feel safe paying in online transactions	0.822	0.163	0.066	0.230
3	Enhances my effectiveness of utilizing banking service	0.021	0.709	-0.277	0.023
4	My interactions with the payment Banking facilities are clearand understandable	0.439	0.654	-0.073	0.145
5	Services provided as promised	0.060	-0.830	0.081	0.039
6	It's easier to conduct banking transactions	-0.055	0.738	0.145	0.224
7	Payment banking gives control over the transactions	0.216	0.042	0.690	0.274
8	Payment banking interface is customized to my needs	0.028	0.327	0.506	-0.292
9	Provides 24/7 payment banking facilities	-0.134	0.120	0.837	0.060
10	Payment banking provides up-to-date and Accurate information	0.120	0.019	0.722	-0.014
11	I am confident over the security aspects	0.019	0.060	0.709	0.657
12	Computerized transactions are secured transactions	0.120	0.216	0.246	0.841
13	Advances in digital security technology Provide for safer banking transactions	0.019	0.028	0.058	0.767

Source: Computed Data

The above table 2 exhibits the rotated factor loading for the thirteen statements (Attributes) of customers access the payment banking. It is clear from the table that all twenty statements have been extracted into factors. The Rotated Factor Matrix, for the payment banking Technology FACTOR1,The variables responsible for 'safety' are presented in TABLE 3.

Table 3 Safety

Variables	Factor Loading	Communality	Crobach's Alpha
Find it safe to store debit/credit card information	0.829	0.716	0.731
Feel safe paying in online transactions	0.822	0.766	

Source: Computed Data

Table 3 show that the attribute such as "Find it safe to store debit/credit card information and Feel safe paying in online transactions" with high factor loading constituted Factor 1. The above said attributes with high loading on Factor 1 is characterized as "safety". The higher factor loading on its identifying attributes associate with Factor 1. All the attributes have high communality, indicating that the variables within Factor 1 have a high association. The Cronbach's alpha value of the attributes indicates that the attributes within Factors two have a very high association among them. FACTOR 2, The variables responsible for 'Reliability"' are presented in TABLE 4.

Table 4 Reliability

Variables	Factor Loading	Communality	Crobach's Alpha
Enhances my effectiveness of utilizing banking service	0.709	0.724	0.692
My interactions with the payment banking facilities are clear and understandable	0.654	0.716	
Services provided as promised	-0.830	0.704	
It's easier to conduct banking transactions	0.738	0.723	

Source: Computed Data

It is observed from the above table 4 that the attributes of payment banking such as "Enhances my effectiveness of utilizing banking service, My interactions with the payment banking facilities are clear and understandable, Services provided as promised and It's easier to conduct banking transactions" constituted Factor 2 with higher factor loading. The above said four attributes with high factor loading on Factor 2 is characterized as "Reliability". The higher factor loading of the attributes indicates that Factor 2 underlies that variable. The higher amount of variation is explained by the extracted factors. The Cronbach's alpha value of the attributes indicates that the attributes within Factor 4 have a very high association among them. FACTOR 3, The variables responsible for "Utility" are presented in TABLE5.

Table 5 Utility

Variables	Factor Loading	Communality	Crobach's Alpha
Payment banking gives control over the transactions	0.690	0.797	0.827
Payment banking interface is customized to my needs	0.506	0.595	
Provides 24/7 payment banking facilities	0.837	0.813	
Payment banking provides up-to-date and accurate information			

Source: Computed Data

It is observed from the above table 5 that the attributes of payment banking, theattributes, "Payment banking gives control over the transactions, Payment banking interface is customized to my needs, Provides 24/7 payment banking facilities and Payment banking provides up-to-date and accurate information" constituted Factor 3 with higher factor loading. The above said four attributes with higher factor loading on Factor 3 is characterized as "Utility". The higher factor loading of the attributes indicates that the Factor 3 underlies the above four variables. The higher communality value of the attributes indicates that the attributes within Factor 3 have a very high association among them. The Cronbach's alpha value of the attributes within Factor 3 has a very high association among them. FACTOR 4, The variables responsible for 'Perceived Risk' are presented in TABLE6.

Table 6 Perceived Risk

Variables	Factor Loading	Communality	Crobach's Alpha
I am confident over the security aspects	0.657	0.826	0.655
Computerized transactions are secured transactions	0.841	0.743	
Advances in digital security technology provide for safer banking transactions	0.767	0.806	

Source: Computed Data

It is observed from the above table 6 that the attribute "I am confident over the security aspects, Computerized transactions are secured transactions and Advances in digital security technology provides for safer banking transactions" is characterized as "Perceived Risk", is constituted as Factor 4 with a higher factor loading of 0.657, 0.841 and 0.767. The communality value for these attributes is 0.826, 0.743 and 0.806. The Cronbach's alpha value of the attributes indicates that the attributes within Factor 4 have a very high association among them.

Factor Influencing to Access the Payment Banking

Factor analysis of ferity relating to the customers access the payment banking identified four Travel factor and the results are presented in Table 7

Table 7 Factor Influencing to Access the Payment Banking

Factors	Eigen Value	Percentage of variance	Cumulative percentageof variance
Safety	3.653	18.26	18.26
Reliability	3.077	15.38	33.65
Utility	2.678	13.39	47.04
Perceived Risk	2.311	11.55	58.59

Source: Computed Data

*Kaisar-Meyer-Olikin measure of sampling adequacy = 0.681

*Bartlett's Test of Sphericity: Chi-Square x2 = 4041.586

Degree of Freedom df = 190

Signification = 0.000

It is observed from Table 7 that the four factors such as Safety, Reliability, Utility, and Perceived Risk. This factor account for about 58.59 per cent of the variance in the data Eigen Value for the factor "Safety" is 3.653. This indicates that the factor contains very high information than the other factors.

The first factor, "Safety" provides the maximum insights of customers access thepayment banking in the study area. It is a very important factor because the respondents prefer payment banking for Feel safe paying in online transactions.

The second important factor called "Reliability" accounts for 15.38 per cent variance.The Eigenvalue of this factor is 3.077. It explained that customers who choose to payment banking service feel the payment banking is more clear and understandable and a majority of them agree to the point that the payment banking services are provided as promised.

The third and thefourth Factors, "Utility" and "Perceived Risk" account for 13.34 percent and 11.55 per cent variance with the Eigen value of 2.678 and 2.311 respectively. It shows that customers are encouraged to access payment banking. This factor is concerned about the convenience and comfort that the customer is expecting from payment banking services.Payment banking facilities are more flexible and help customers to manage their banking transactions in a much easier way. Customers get real time access to the information. Security issues are very common in payment banking services. Most customers have a fear of providing their financial details through the internet or mobile.

The high value of Kaiser-Mayer-Olkin (KMO) test of sampling adequacy (0.681) indicates the correlation

between the pairs of variables explained by other variables and thus factor analysis is considered to be appropriated in this model.

Conclusion

New-stripped-down types of banks, which are expected to reach customers mainly through mobile phones rather than traditional bank branches. payment banks have been announced by RBI as a possibility of digital transaction only one kind. The RBI of India had asked the nachiket MOR committee to explore and recommended options for creating a special category of banks which would positively impact financial inclusion within India. As a part ofthe recommendations of the Nachiket committee a special category called “payment Banks‟ has been proposed. The four factors namely "Safety”, “Reliability”, “Utility”, and “Perceived Risk”, ferity attributes with help of the factors analysis technique. Each factor had more than other variables. Each variable was expressed as a line combination of the underlying factors. The amount of variance a variable share with all other variables included in the analysis was referred to as communality. All the attributes that are formed under each factor had high associations.

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