Awareness Level and Impact of Payment Banks in India

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Abstract

Payment Banks is a buzz word in Indian banking sector now. Reserve Bank of India has granted licenses to 11 entities to enhance the financial inclusion in India. The objective of the research paper is to analyse the awareness level regarding payment banks in India by low income group people, and the impact of payment banks on acceptability of banking services by low income group in spite of existing commercial banks. To analyze the applicability and reliability of scale, factor analysis has been administered before the use of stepwise method (forward selection) of multiple regression. Primary data on 5 point Likert scale has collected from the Delhi region with the help of questionnaires through a self administered approach. Stratified random sampling technique was used and total 391 useful schedules were considered for analysis of data using SPSS version 23. The results of the study show that there is a low awareness level regarding payment banks in India among low income group people, and also having positive impact of payment banks on acceptability of banking services by low income group in India.

Keywords: *Payment Banks, Low income group, Awareness level, financial inclusion*

Introduction

Pande (2015) stated that payment banks are niche banks set up by Reserve Bank of India to promote financial inclusion. The expansion of banking services is a crucial need of time to promote financial services among people in rural areas, migrant workers, low income group and small businesses. Reserve Bank of India and Government of India had taken multiple steps to promote the financial services in all part of the country through various financial schemes like PradhanMantri Jan DhanJojna (PMJDY), digital payment interface like IMPS, UPI, RTGS, NEFT; The Digital India campaign and mobile payment tools like Paytm and Airtel Money. After all these steps, Reserve Bank of India realised the need of some more initiatives to be taken, so on 19th August 2015, Reserve Bank of India approved "In –Principle" license to 11 entities to launch payment banks in Indian market on the basis of recommendation of Committee on "Comprehensive Financial Services for Small Businesses and Low Income Households". The committee had submitted its report on 7thJanuary 2014 and recommended to permit the business entities to set up a new kind of bank called Payment Bank (Iyer et al., 2018). After the report of the committee, total 41 applications received by Reserve Bank of India and out of these 41 applications, Reserve Bank of India had licensed to 11 entities.

After getting the license, Airtel launched first payment bank in India with Paytm. Till now 3 entities who got licensed earlier, have surrendered their licenses to RBI.The need of payment banks was realised by the committee as poor financial infrastructure imposes a considerable constraint upon financial institutions in developing countries which results the inaccessibility of financial services to the underserved segments of the society at large (Srinivasan and Subramanian, 2015).

The registration of payment bank has been permitted under the Companies Act 2013 as a public limited company and licensed under Section 22 of the Banking Regulation Act 1949. Payment bank also have to operate its services under The Reserve Bank of India Act 1934, The Banking Regulation Act 1949, Foreign Exchange Management Act 1999, Payment and Settlement Act

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2007 and other statutory and prudential regulations issued by Reserve Bank of India and other regulatory authorities from time to time.

Requirements to set up a payment bank (CRISIL Press Release, 2015):

1. Payment banks have to maintain leverage ratio above 3 percent.
2. Promoter's share should be at least 40 percent during first 5 years of its initiation of operations.
3. Payment banks have to open minimum 25 percent of its total branches in rural areas.
4. Payment banks have to follow the FDI rules in case of foreign investment in the entity.
5. Payment banks have to maintain minimum 100 crores INR as minimum equity capital.

Payment banks work within the prescribed set of agenda and guidelines laid down by Reserve Bank of India and restrict these banks for some of the functionalities (CRISIL Press Release, 2015). These are:

1. Payment banks cannot issue credit cards.
2. Payment banks cannot accept NRI deposits.
3. Payment banks are not allowed to set up a new subsidiary
4. Payment bank cannot undertake non-banking financial activities.

Literature Review

CRISIL press Release, 2015 defined the meaning of financial inclusion and accordingly "The extent of access by all sections of society to formal financial services such as deposits, credit, insurance and pension services". Three dimensions of financial inclusion exist i.e. Branch penetration, deposit penetration and credit penetration. According to the article "RBI's guidelines for licensing for payment and small finance banks" published by Deloitte Touche Tohmatsu India LLP, Reserve Bank of India, Government of India and other regulatory authorities have taken numerous initiatives to promote financial inclusion but the overall objective behind these initiatives could not be accomplished due to the lack of financially viable business model to serve the Bottom of the pyramid. Kohli and Patel (2016) stated that Indian telecommunication companies such as Airtel and Vodafone Idea has started to accept the payment through payment banks and now customers can avail the benefits of financial inclusion. All the transaction performed through payment bank would be recorded and proved itself as a mode to minimize cash based transactions which is also having impact on elimination of black money. Damle et al., (2016) stated that in 2014, only 50 percent of total Indian youth were having bank accounts and out of these 40 percent were dormant (highest in world). This data shows that there is a huge scope for the banking institutions to cater banking services to Indian residents which will gradually enhance the market penetration. More customers will start to enjoy the banking services and reduce their transactional cost. Even in India, ATM penetration is also very low in comparison to other countries like Indonesia and Brazil. In India the number of ATMs per 1,00,000 population was only 18, even this ratio is around 125 in Brazil and 50 in Indonesia. Iyer et al., (2018) stated that the set- up of payment banks are required to tap the untapped customers who are having low household income and small businesses. They observed in their study that low income people or migrant workers are also interested to use payment bank services but most of them are unaware about the services being rendered, and suggested that there is a need of awareness programmes to organise by banking institutions or government of India.Varun (2015) analysed the services provided by the banks and observed the innovations going on in banking sector. He observed that payment banks have made tremendous impact on the Indian economy and now people of India can access their banking requirements anytime and anywhere whether the user belongs to high class or low income group. Chandarana (2015) stated that the Government of India had taken an influential decision in 2015 and licensed to 11 entities to start rendering banking operational services to customers through remittance, money transfer, payment services etc. She concluded that payment banks are a game changer for the banking services and now customer can access using their smart phones which is enhancing the efficiency of the existing bank employeesas well as customers.Burman and Mathur (2013) studied the launch of new category of mobile money launched by India's telecommunication company i.e. Airtel and observed that there was a vast majority of people who were not having banking accounts and doing transactions with cash only. This was a revolutionary step to shift the cash based economy to digitally based economy.RaghuramRajan, the former Governor of RBI

stated that payment banks will act as a complementary role to the existing commercial banks. There are certain limits and restrictions on the transactions permitted through payment banks such as payment banks can not sanction loans and cannot accept the deposits from the customers of more than Rs. 1,00,000. Payment banks will reduce the cost of access and the workload on the existing commercial banks.

Research Gap

Past studies have discussed about the availability of payment banks in India but very few have shown their concerned about the awareness level regarding payment banks and impact of payment banks on acceptability of banking services by the low income group people in India to enhance the financial inclusion. So in this paper, these two concerns have been addressed.

Objectives of the Study

1. To analyse the awareness level of the target population in respect to payment banks.
2. To analyse the impact of payment banks on acceptability of banking services by low income group people in India.

Research Methodology

Data collection: For the collection of primary data, questionnaire on 5 point Likert scale has been used through a self-administered approach. Questionnaires were distributed among 435 customers in Delhi region as Delhi is the national capital of India and is having customer base of all segments.

Sampling method

Stratified random sampling method has been applied to ensure the representation of respondents of all segments of the society.

Sample size

For this study, questionnaires were distributed among 435 customers to obtain the useful 384 responses. Out of 435, 391 useful responses have been received.

Reliability

To check the reliability of the responses, Cronbach's Alpha was used and found the value above 0.7, which is acceptable.

Normality

To ensure the normality of data, Skewness and Kurtosis values were also checked and the results are within the acceptable range i.e. -2 to +2.

Tools for analysis

Data was analysed using stepwise method of multiple linear regression, followed by factor analysis. The collected data has been processed using SPSS version 23.

Hypothesis

On the basis of extensive literature review and personal interaction with bank's customers following hypotheses were formed.

H01: There is no impact of awareness level of payment banks on the acceptability of banking services by target customers in India.
H02: There is no impact of accessibility of payment banks on the acceptability of banking services by target customersin India.
H03: There is no impact of trust level on payment banks on the acceptability of banking services by target customersin India.
H04: There is no impact of interest rate variation of payment banks on the acceptability of banking services by target customersin India.
H05: There is no impact of transactional limits through payment banks on the acceptability of banking services by target customersin India.
H06: There is no impact of time saving factor of payment banks on the acceptability of banking services by target customersin India.
H07: There is no impact of no credit facility by payment banks on the acceptability of banking services by target customersin India.

Data Analysis

This paper is divided in two sections, as follows:
A.Customer's awareness level regarding payment Banks

In this section customer's awareness level has been identified. The respondents were asked 8 questions (Five Point Likert Scale, Table 1) ranging from low awareness level to high awareness level regarding payment banks.

Table 1: Variables coding for customer's awareness level of Payment banks

Variable Details	Variable Name	Nature
Payment banks	ID_1	Independent
Features of payment banks	ID_2	Independent
Limits of transactions	ID_3	Independent
Credit function	ID_4	Independent
Interest rates	ID_5	Independent
Service Charges	ID_6	Independent
Insurance features	ID_7	Independent
Eligibility	ID_8	Independent
		Independent
Binary - (Recorded variable to judge awareness of payment banks)		

This new variable (Binary) was also on Five Point Likert Scale.

The responses to various questions were than recomputed into a separate variable using SPSS, to calculate composite awareness level regarding payment banks. After this the response for the new variable ranging from strongly disagree to neutral are recorded as 0, that is low awareness level of payment banks and responses from partially agree to strongly agree are recorded as 1 that is adequate awareness level of payment banks (Table 2).

Table 2: Binary

	Frequency	Valid %	Cumulative %
Adequate Awareness Level	168	42.97	42.97
Low Awareness Level	223	57.03	100.0
Total	391	100.0	100.0

As can be seen from Table 2, out of 391 customers, only 168 customers (42.97%) have adequate awareness level regarding payment banks, remaining 223 customers (57.03%) have low awareness level regarding payment banks.

There are several factors responsible for these low levels.

(a) Indian customers usually avoid enquiring about new products or services because of fear factor.

(b) Payment banks is a new concept in India and most of the people who belong to low income group, migrant workers etc, not having adequate resources to update them.

(c) People usually like to maintain their banks accounts with existing commercial banks and not keen interested to update their banking requirements through innovative options.

B. Impact of payment banks on acceptability of banking services by low income group people in India

In this study, impact of payment banks in India by low income group has been analysed, and for the same responses have been collected on 7 dimensions (Five Point Likert Scale, Table 3).

Table 3: Variables coding for awareness level of password management's influence on customer's adoption

Variable Details	Variable Name	Nature
Customer's adoption	D1	Dependent
Knowledge_Payment banks	D2	Dependent
Accessibility_Payment banks	D3	Dependent
Payment banks_Trust	D4	Dependent
Payment banks_Interest rate variation	D5	Dependent
Payment banks_Transactional limits	D6	Dependent
Payment banks_Credit facility	D7	Dependent

Descriptive Statistics				
	N	Mean	Skewness	Kurtosis
	Statistic	Statistic	Statistic	Statistic
D1	391	3.01	.010	-1.202
$ID1_1$	391	3.24	-.155	-1.061
$ID1_2$	391	3.13	-.068	-1.051
$ID1_3$	391	3.12	-.094	-1.127
D2	391	3.02	-.085	-1.345
$ID2_1$	391	3.39	.400	-1.009
$ID2_2$	391	3.14	-.102	-1.230
$ID2_3$	391	3.46	.387	-1.192
D3	391	2.78	-.119	-.960
$ID3_1$	391	3.51	-.684	.315
$ID3_2$	391	2.75	-.065	-1.161
$ID3_3$	391	3.63	-.718	.774
D4	391	3.10	-.298	-1.059
$ID4_1$	391	3.26	.081	-1.106
$ID4_2$	391	3.10	-.355	-.729
$ID4_3$	391	3.24	-.317	-.939
D5	391	3.70	-.445	-.378
$ID5_1$	391	3.77	-.463	-.308
$ID5_2$	391	3.75	-.804	.252
$ID5_3$	391	3.90	-.873	.066
D6	391	3.25	-.201	-.495
$ID6_1$	391	3.95	-1.048	1.065
$ID6_2$	391	4.12	-1.263	.401
$ID6_3$	391	4.25	-1.331	1.104
D7	391	3.16	-.354	-1.097
$ID7_1$	391	3.26	.081	-1.106
$ID7_2$	391	3.10	-.355	-.729
$ID7_3$	391	3.16	-.310	-.824
Valid N (listwise)	391			

Table 4 of the Descriptive Statistics found that all the values of all the variables are well as these are having values of skewness and kurtosis in the range of -2 to +2 which is acceptable [George and Mallery, 2010].

Factor Analysis

Table 5: KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.833
Bartlett's Test of Sphericity	Approx. Chi-Square	1687.834
	df	105
	Sig.	.000

Table 5 of KMO and Bartlett's Test is showing that the KMO value is 0.833, which is nearer to 1.0. Hence the value is acceptable and justifies the appropriateness of factor analysis [Malhotra, 2008].

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Table 6: Rotated Component Matrix

Rotated Component Matrix[a]					
	Component				
	1	2	3	4	5
$ID1_1$			.831		
$ID1_2$			.884		
$ID1_3$			.859		
$ID2_1$					.801
$ID2_2$					.617
$ID2_3$					.805
$ID3_1$		.703			
$ID3_3$		.745			
$ID4_1$	.884				
$ID4_2$	.865				
$ID4_3$	.832				
$ID5_1$		.727			
$ID5_2$		.882			
$ID5_3$		.789			
$ID6_1$				.951	
$ID6_2$				.910	
$ID6_3$				.787	
$ID7_1$	.765				
$ID7_2$	.709				
$ID7_3$	.712				

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 5 iterations.

To analyse the applicability of the scale, exploratory factor analysis was administered (Table 6). To identify the underlying factors, principal component analysis with varimax rotation was used. As a result of factor analysis, 5 components revealed, which covered 71.637 % of variability and independent variable ID32 has been excluded because its impact on the component was 0.259 which is less than the minimum acceptable range.

Table 7: Scale reliability

Variables/combined items	Anchor	Cronbach's α
1	6	0.941
2	5	0.877
3	3	0.868
4	3	0.858
5	3	0.656

All the three components have Cronbach's α value more than 0.6 which is consid ered well [Cavana et al., 2001].

MULTIPLE LINEAR REGRESSION

Table 8: Model Summary[f]

Model	R	R Square	Adjusted R Square
1	.811[a]	.658	.655
2	.694[b]	.481	.476
3	.854[c]	.729	.727
4	.554[d]	.307	.302
5	.803[e]	.644	.642

a. Predictors: (Constant), $ID7_1$, $ID4_2$, $ID7_3$, $ID7_2$, $ID4_1$, $ID4_3$
b. Predictors: (Constant), $ID3_3$, $ID5_1$, $ID5_2$, $ID3_1$, $ID5_3$
c. Predictors: (Constant), $ID1_2$, $ID1_1$, $ID1_3$
d. Predictors: (Constant), $ID6_3$, $ID6_2$, $ID6_1$
e. Predictors: (Constant), $ID2_2$, $ID2_3$,$ID2_1$
f. Dependent Variable: D 4 for Model 1, D5 for Model 2, D1 for Model 3, D6 for Model 4, D2 for Model 5

Table 9: Anova[a]

Model		*Sum of Squares*	*df*	*Mean Square*	*F*	*Sig.*
1	Regression	435.030	3	145.010	248.226	.000[b]
	Residual	226.080	387	0.584		
	Total	661.110	390			
2	Regression	169.568	4	42.932	89.504	.000[c]
	Residual	182.821	386	0.474		
	Total	352.389	390			
3	Regression	502.964	3	167.655	346.917	.000[d]
	Residual	187.026	387	0.483		
	Total	689.990	390			
4	Regression	140.270	3	46.757	57.142	.000[e]
	Residual	316.666	387	0.818		
	Total	456.936	390			
5	Regression	507.436	2	253.718	351.079	.000[f]
	Residual	280.400	388	0.723		
	Total	787.836	390			

a. Predictors: (Constant), $ID7_1$, $ID4_2$, $ID7_3$, $ID7_2$, $ID4_1$, $ID4_3$
b. Predictors: (Constant), $ID3_3$, $ID5_1$, $ID5_2$, $ID3_1$, $ID5_3$
c. Predictors: (Constant), $ID1_2$, $ID1_1$, $ID1_3$
d. Predictors: (Constant), $ID6_3$, $ID6_2$, $ID6_1$
e. Predictors: (Constant), $ID2_2$, $ID2_3$,$ID2_1$
f. Dependent Variable: D 4 for Model 1, D5 for Model 2, D1 for Model 3, D6 for Model 4, D2 for Model 5

Table 10: Coefficients[a]

Model	Unstandardised coefficients		Standardised coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-0.064	0.123		-0.52	0.004
$ID7_1$	0.331	0.054	0.294	6.166	0.000
$ID4_2$	0.377	0.048	0.352	7.862	0.000
$ID7_3$	0.291	0.043	0.275	6.821	0.000
$ID7_2$	0.258	0.059	0.224	6.245	0.000
$ID4_1$	0.264	0.024	0.218	7.227	0.000
$ID4_3$	0.203	0.037	0.210	6.995	0.000
2 (Constant)	0.747	0.160		4.664	0.000
$ID3_3$	0.306	0.049	0.304	6.211	0.000
$ID5_1$	0.258	0.047	0.271	5.543	0.000
$ID5_2$	0.126	0.050	0.140	2.504	0.013
$ID3_1$	0.112	0.046	0.122	2.460	0.014
$ID5_3$	0.205	0.011	0.248	2.387	0.011
3 (Constant)	-0.165	0.105		-1.564	0.019
$ID1_2$	0.52	0.047	0.487	10.967	0.000
$ID1_1$	0.342	0.039	0.324	8.874	0.000
$ID1_3$	0.139	0.043	0.138	3.223	0.001
4 (Constant)	5.542	0.209		26.539	0.000
$ID6_3$	-0.47	0.057	-0.45	-8.262	0.000
$ID6_2$	0.448	0.079	0.517	5.691	0.000
$ID6_1$	-0.543	0.107	-0.506	-5.082	0.000
5 (Constant)	-0.105	0.154		-0.683	0.049
$ID2_2$	0.733	0.033	0.721	22.263	0.000
$ID2_1$	0.247	0.004	0.981	42.180	0.000
$ID2_3$	0.239	0.043	0.18	5.559	0.000

a. Dependent Variable: D4 for Model 1, D5 for Model 2, D1 for Model 3, D6 for Model 4, D2 for Model 5

Interpretation of Regression analysis

Firstly the effect of predictors entered in the model 1, 2, 3, 4 and 5 were analysed. For the testing of hypotheses stepwise method (forward selection) of multiple linear regression has been used. These are the consolidated tables of all the models. Initial tables have been omitted for clarity.

In model 1 hypotheses H04 and H07 are simultaneously analysed and it can be seen from the model summary (Table 8) that the model explains 65.8% of the total variation of the dependent variable customer's adoption (variable D4).

ANOVA (Table 9), explains that the model is significant (p<.001).

From the coefficients table (Table 10), it can be seen that ID71, ID42, ID73, ID72, ID41, ID43has significant value (p < 0.05) thus we reject the null hypotheses H04and H07, andaccept the alternate hypotheses Ha4 and Ha7.

In model 2 hypotheses H03 and H05are simultaneously analysed and it can be seen from the model summary (Table 8) that the model explains 48.1% of the total variation of the dependent variable customer's adoption (variable D5).

ANOVA (Table 9), explains that the model is significant (p<.001).

From the coefficients table (Table 10), it can be seen that ID33, ID51, ID52, ID31, ID53has significant value (p < 0.05) thus we reject the null hypotheses H03 and H05, and accept the alternate hypotheses Ha3 and Ha5.

In model 3 hypotheses H01 is analysed and it can be seen from the model summary (Table 8) that the model explains 72.9% of the total variation of the dependent variable customer's adoption (variable D1).

ANOVA (Table 9), explains that the model is significant (p<.001).

From the coefficients table (Table 10), it can be seen that ID12, ID11, ID13has significant value ($p < 0.05$) thus we reject the null hypotheses H01, andaccept the alternate hypotheses Ha1.

In model 4 hypotheses H06 is analysed and it can be seen from the model summary (Table 8) that the model explains 30.7% of the total variation of the dependent variable customer's adoption (variable D6).

ANOVA (Table 9), explains that the model is significant ($p<.001$).

From the coefficients table (Table 10), it can be seen that ID63, ID62, ID61has significant value ($p < 0.05$) thus we reject the null hypotheses H06, andaccept the alternate hypotheses Ha6.

In model 5 hypotheses H02 is analysed and it can be seen from the model summary (Table 8) that the model explains 64.4% of the total variation of the dependent variable customer's adoption (variable D2).

ANOVA (Table 9), explains that the model is significant ($p<.001$).

From the coefficients table (Table 10), it can be seen that ID22, ID23,ID21has significant value ($p < 0.05$) thus we reject the null hypotheses H02, andaccept the alternate hypotheses Ha2.

Conclusion

The study started with an objective to analyse the awareness level of payment banks, and impact of payment banks on acceptability of banking services by low income group people in India. The result of the study can be seen from the above analysis and discussion that there is a low awareness level regarding payment banks in India and banking institutions are required to address and should conduct awareness enhancement programmes so that target people can turn-up. Along with this, there is a positive effect of payment banks on the acceptability of banking services by low income group people in India.

References

1. *Burman R, Mathur S (2013). Airtel Money: Getting Indians to convert cash transactions into mobile money transactions. Warc Journal.*
2. *Cavana, R. Y., Delahaye, B. L., &Sekaran, U. (2001).Applied business research: Qualitative and quantitative methods.John Wiley & Sons Australia.*
3. *Chandarana, N. (2015). Payment Bank–A need of digital India. Abhinav National Monthly Refereed Journal of Research in Commerce and Management, 4(11).*
4. *Damle, M., Raval, J., &Thenuan, P. (2016). Genesis of Payment Banks: It's Stimulus on the financial inclusion in India. International Journal of Scientific and Engineering Research, 7(3).*
5. *George, D. and Mallery, P. (2010) SPSS for Windows Step by Step: A Simple Guide and Reference 17.0 Update. 10th Edition, Pearson, Boston.*
6. *Iyer, G. M., Bhansali, S., Bhatt, T., Chhatwani, M., &Deshpande, A. (2018). Role of Payment Banks in India: Opportunities and Challenges. IJAME.*
7. *Kesavan, V. (2015).the diversification of banks to the era of payment banks by Reserve Bank of India with specific reference to Indian Banking sector. International Journal of World Research, 1, 20.*
8. *Kohli, D., & Patel, K. (2016).Payment Banks–Changing Indian Payments Landscape. Available on India Nivesh Research.*
9. *Malhotra, N. (2008). Marketing Research – An Applied Orientation (5th ed.). New Delhi: Pearson Education.*
10. *Pande, J. C. (2015). Payment Banks. A newer form of Banks to Foster Financial Inclusion in India.Global Journal for Research Analysis, 4(11).*
11. *Srinivasan, R., & Subramanian, M. (2015).Payment Banks in India–Demystified. SSRG International Journal of Economics and Management Studies, 2(6).*