

# Payment Banks: Changing Indian Payments Landscape

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## Abstract

The banking system and financial transactions have taken paradigm shift in recent decade in India. The present era has entered into smartphone to smart wallet and they have become mainstream mode of online payment. Mobile users use digital payment gateway and e-commerce applications to facilitate financial transactions to online retailers and e-businesses. Demonetization has also envisaged progressive shift to cashless economy. The study was conducted to find out the dimensions and impact of various demographic factors on the usage of payment banks in the Ahmedabad district of Gujarat. The payment banks show a rapid growth and identified dimensions for the usage of payment banks are; user friendly, convenience, cost effectiveness, security and easy cash management. People look for the aforesaid factors while they transact through payment banks. It is observed that most of the people use Paytm, Freecharge and Jio money payment banks to transact and awareness has impact on the usability of payment banks for bill payment, recharge, ticket booking and shopping. Considering the demographic factors and its impact on the occupation, annual income and education on the usage of payment banks whereas age and annual income both impact the frequency of usage and average spending through payment banks.

**Keywords:** Demonetization, Electronic Payment, Payment Bank

## 1. Introduction

It has been evident for the past decade that Indian population has been increasingly using technology in all segments with the increasing penetration of internet and smartphones. This has affected all businesses including banks also. Banks have also emphasized on preference channels from traditional banking structure to non-branch structure. The banks have well responded to these technology changes with the introduction of electronic banking consisting ATM, e-banking and Mobile banking.

Along with the objective of financial inclusion, Reserve Bank of India (RBI) has also followed to bring structural changes in the banking system. RBI has published vision

2018 document for the “payment and settlement systems in the country” which has focus on migrating to a “less cash” and more digital society. With the entry of finance banks and payment banks that are expected to build new business models based on the advantage of being new, small, nimble, focused and innovative, the competitive landscape was set to change. Current landscape in India comprises of robust start-up ecosystem, deeply-ingrained industry competency, technology trends like artificial intelligence, machine learning, block chain technology that is redefining IT industry in digital transformation, mindsets are evolving with millennials who are spending individually, etc., that strongly promotes rise of digital payments.

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## 1.1 Payment Bank

Payment bank is a non-full-service bank which can receive deposits and provide remittances. It cannot carry out lending activities so they can issue debit card, but cannot issue credit card (though Paytm has recently launched Paytm First Card which is a credit card. Paytm is offering this card in partnership with Citibank). The payment bank provides small saving accounts, payment and remittance services to labour workforce, low income households, small businesses and other unorganized sector entities.

## 1.2 RBI Guidelines for Payment Bank

RBI registers payment bank as a public limited company under the Companies Act 2013 and licensed under section 22 of the banking regulation act, 1949, with specific licensing conditions restricting its activities to acceptance of demand deposits and provision of payments and remittance services. It is governed by the provisions of the Banking Regulation Act, 1949; Reserve bank of India act, 1934; Foreign Exchange Management, 1999; Payment and Settlement Systems Act, 2007; other relevant statutes and directives issued by RBI and other regulators from time to time, including the regulations of SEBI regarding public issues and other guidelines applicable to listed banking companies.

## 1.3 Eligibility Criteria

According to the norms of RBI as discussed by Reddy (2019), the existing non-bank pre-paid payment instruments issuers, professionals, non-banking finance companies, telecom companies, supermarket chains, corporate etc., would be able to apply for being a payment bank. These entities are required to have Rs. 100 crore capitals and have to mandatory use word 'Payment'.

The scope of activities that payment banks are permitted to conduct includes deposits (only current/savings account), issue ATM/debit cards, payments and remittances services and act as distributor of third-party products (can cross sell insurance and mutual funds etc). Furthermore, the criteria also discussed that the entities and promoters/promoter groups as defined in the SEBI regulations, 2009 should be fit and proper in order to be eligible to promote payments bank. RBI mentions to assess the fit and appropriate status of the applicants on basis of their past records, financial stability and success records

of at least five years in business. The paid-up equity capital of such payment banks shall at least be 40 percent for the first five years from the commencement of its business. The payment banks would be as per the Foreign Direct Investment (FDI) policy have foreign shareholdings for private sector banks. It is also mentioned that payment banks will be required to invest 75 percent of its demand deposits balances in Government Securities and Treasury Bills to meet Cash Reserve Ratio (CRR) and Statutory Liquidity Ratio (SLR), while maximum of 25 percent of its deposits will have to be held in current and fixed deposits with other scheduled commercial banks.

## 2. Literature Review

The structure of banking sector in India is divided into two categories banks and financial institutions. Banks consists of public sector, private sector, foreign, rural, urban and rural cooperatives. While financial institutions consist of All-India financial institutions, state-level and others (Singh, 2019). The growth of Indian banking sector is at good pace with rising disposable income. Access to banking systems has also improved with lot of government initiatives that promotes banking technology and increased usage of unbanked and non-metropolitan region. Government of India is promoting cashless transaction post demonetization which has raised the usage of internet banking, mobile banking and payment banks. Cashless payments in 2016 increased by 22 per cent when compared to 2015 (Waghmare, 2016). This percentage will grow tremendously with the rise and promotion of digital India. It is expected that the users of online banking in the country will increase to 150 million from 45 million by 2020 (Financial Express, 2017). Technology advancement and digital India has also led to trending usage of payment banks. It is a new development in the banking sector which is in some measure similar to banks but with limited services that banks provide.

The main objectives of payment banks in India are cashless transaction and strengthen usage of financial services in different sectors. It is a sort of branchless transaction with certain regulations (Mas, 2009). Payment banks are suitable for growing economies where the primary goal is financial inclusion (Winn, 2015). There are very few researches that have analyzed the concept of payment banks. There are various countries that have implemented the services of non-banking institutions

for payment or fund transfer. India is fighting with lot of problems related to fake currency and black money. Hence, cashless/digital transactions are currently very important to curb counterfeiting and other problems (Alvares and Clifford, 2009). Managing currency would become easier with the help of cashless transaction specifically with payment banks... Transactions can be tracked, tax will not be avoided, fraud will be reduced (Das and Agarwal, 2010). Because of the technology advancement there are various new payment systems that are evolving in country. National Electronic Fund Transfer (NEFT), Immediate Payment Service (IMPS), Aadhaar Enabled Payment System (AEPS) etc already existed, but now is the time of Unified Payments Interface (UPI) payment bank which makes the transaction easier than any other system.

Payment bank makes bulk and frequent transactions quick and easy. This system gives consumers facility of less operating cost rather no operating cost whereby they can access and use certain types of banking services like paying bills, fund transfer directly to account or to account of other party's payment bank, and recharges (Clark, 2008). There are several factors due to which consumers are preferring usage of payment banks. These kinds of services are easy to use, less time consuming as the interface of applications are made such along with the safety feature (Venkatesh et al., 2003, Sharma and Singh, 2009). Payment banks are affordable as the operating cost is minimum or zero and there are lots of discounts and offers are available (Karjaluo, et al, 2002, Polatoglu and Ekin, 2001). There are also issues related to these services which are perceived negatively by consumers like financial cheating, malpractice of account and problems with the application user friendliness (Sharma and Singh, 2009, Sukkar & Hasan, 2005).

Studies also show that consumers perceive that determinants of payment banks are features like less time consumption, independence of accessing and using the service at any time from anyplace and privacy (Karjaluo, et al, 2002). Though, there are perceived risk and worry about security issues affects the growth of this service (Bamoriya and Singh, 2012, Hooper & Zhou, 2007, Wang, et al., 2003). The service adoption process by consumer will increase only if they find it useful and safe (Ali et al., 2010). Even consumer awareness (knowledge, conviction and action) affects adoptions of technology and payment banks (Rogers and Shoemaker, 1971, Sathye, 1999). A study conducted in US found factors that help adoption of this facility are comparative advantage, level

of difficulty, compatibility, etc. (Celik, 2008; Comninos, et al., 2008; Gan, et al., 2006; Kolodinsky, et al., 2004). There are also studies that show vast difference in the demographical profiles of users and non-users of these types of technologies in terms of demography, behavior and attitude (Venkatesh et al., 2003; Akinci, et al., 2004). Consumers also appreciate and prefer dimensions like trust (Rousseau et al., 1998), basic service quality, value addition, and cross-buying facility as dimensions for this type of financial services (Bauer et al., 2005). Social factors enhance the adoption process as individual thinks how other perceives their usage of new system (Venkatesh et al., 2003).

### 3. Methodology

#### 3.1 Problem Statement

From the literature review it is found that in India there is little research done on newly introduced financial services like payment banks and few studies discusses about the consumer perception, preferences and attitude towards payment banks. The study wants findout the dimensions along with impact of various demographic factors on the usage of payment banks.

#### 3.2 Research Objectives

On the basis of review of literature and evidences from previous studies, the present study has been planned with the following objectives:

- To identify the major dimensions influencing the preferences and usage of payment banks.
- To analyse the effect of demographic variables on use of payment banks.

#### 3.3 Research Design and Sampling

The study was conducted in the Ahmadabad district of Gujarat, and a sample size of 196 respondents was selected on judgmental basis (where the respondents who had knowledge or awareness about payment banks were surveyed) to meet the objectives of the study. The research design for the study is descriptive in nature. The questionnaire constructed for the study included several questions which were continuous and categorical in nature. The survey consisted of questions that covered demographics, awareness of payment banks, financial

attitude and preferences towards payment banks, and reasons for not adopting the said services.

## 4. Data Analysis

### 4.1 Identification of Dimensions of Usage of Payment Banks

To determine the important factors affecting the preferences for usage of payment banks, the Principal Component Factor Analysis (PCA) with varimax rotation was performed for the 20 items measuring perception. As shown in the (Table 1), the result indicates that Bartlett's Test of Sphericity (Bartlett, 1954) was significant (Chi square 3789.826,  $p$ -value $<0.0001$ ). The Kaiser Mayer-Olkin (KMO) measure of sampling adequacy was high at 0.710 is exceeding the recommended value of 0.6 (Kaiser, 1974). The two results of (KMO and Bartlett's) suggest that the data is appropriate to proceed with factor analysis (Malhotra, 2010).

Exploratory Factor Analysis (EFA) was performed and only those factors retained which had the Eigen value more than 1 since they are considered significant. The result was that there was a total of 5 factors consisting 19 items, which explained for 72.264% of the total variance. One item has communality less than 0.5 which is discarded from the analysis. The inter-item correlation and inter-item consistency of each factor was also measured by calculating each factor's Cronbach's alpha (Cronbach, 1951).

**Table 1.** Factors affecting perception and usage of payment banks

	F-1	F-2	F-3	F-4	F-5	Reliability (Cronbach Alpha)
Factor-1 (User Friendly)						0.865
Easy to use	.849					
User Friendly APP Interface	.796					
Innovative	.577					
Linking of banking service with payment bank	.486					
Factor-2 (Convenience)						0.808

Time taken for transaction is less		.749				
Customer Services		.771				
Convenience of Transaction		.715				
No time to go at banks		.521				
Contact number is only required and there is no need for the details required in banking transaction like IFSC code, account number, etc.		.683				
Factor-3 (Cost effective)						0.737
Discounts/ offers Available		.693				
Cashless transaction		.417				
Easy Accessibility		.720				
One can keep track on expenditure incurred		.698				
Factor- 4 (Security)						0.710
Secured Transaction			.745			
Privacy			.843			
Immediate proofs of transactions are available			.744			
Safety of money deposited			.529			
Factor-5 (Easy Cash Management)						0.581
Relief from exchange of small denomination				.709		
Instant refund available				.837		

Factor 1 loaded on four variables and is labeled as *User Friendly* and it comprises of dimensions related to easy usability, application interface, linking of banking accounts with payment bank and innovative features of payment bank. The reliability of the variables constitutes the factor is 0.865 (Cronbach’s alpha). The factor extracted is very important to people for doing their financial transaction and at ease it can be done. Consistent with our expectation based on literature review, it was found that people prefer financial transaction if technology is simple and user friendly.

Factor 2 loaded five variables and is labeled as *Convenience* with reliability 0.808 (Cronbach’s Alpha). The factor comprises statements that relate to convenience of transaction, less transaction time, good customer services, not required to visit bank for transactions and details for fund transfer. Considering time constraints people are using payment banks where they are not required to visit bank branches.

Factor 3 loaded on four variables and has reliability 0.737 (Cronbach’s Alpha). The dimension is labelled as *Cost Effectiveness*. It includes variables like discounts/offers available on payment bank usages like points, wallets and discounts. Payments banks are even beneficial for expenditure tracking and to perform cash less transaction without extra charges.

Factor 4 loaded on four variables with reliability of 0.710 (Cronbach’s alpha). The factor is labelled as *Security* which is also one of the most important factors considered by the users while they transacting in money. The factor consists security and confidentiality of transaction, immediate proofs of transactions and safety of money deposited with payment bank.

Factor 5 loaded on two variables with reliability of 0.581 (Cronbach’s alpha). The factor is labelled as *Easy Cash Management* consisting statements like hassle free transaction of not small denomination of currency and instant refund facility.

### 4.2 Awareness of different Payment Banks

The data about the awareness of the payment banks collected from the respondents is depicted in (Table 2). From the data it can be inferred that most of the respondents are aware about the Paytm (Mean Values; 1.28), Freecharge (Mean Values; 1.61), JioMoney (Mean Values; 1.67), BHIM (Mean Values; 1.70) and Vodafone m-pesa ltd. ((Mean Values; 1.75) whereas other payment banks as per mean values have less awareness among respondents.

**Table 2.** Different payment banks and mean values

Sr. no	Payment bank	Mean Value
1	Paytm	1.28
2	Aditya Birla Money	1.96
3	Airtel M Commerce Service Ltd.	1.75
4	IPPB (India Post Payment Bank)	1.92
5	Mitra (Fino Payments Bank)	1.92
6	JIO Money (Reliance Industries Ltd.)	1.67
7	National Security Depository Ltd.	2.025
8	Easy Money (Tech Mahendra Ltd.)	1.91
9	Vodafone m-pesa Ltd.	1.75
10	Phonepe	1.87
11	BHIM	1.70
12	Freecharge	1.61
13	Ultra cash	1.98
14	Oxigen Wallet	1.91
15	Trupay	2.01
16	MobiKwik Lite	1.85
17	Paynear	2.01
18	Chillr	2.15

### 4.3 Association between Awareness about Payment Bank Services and usage of Payment Bank

Chi-square has been applied to check the association between usage and awareness of payment bank.

#### Hypothesis-1

**H1:** There is significant association between usage of payment bank and awareness of payment bank.

The chi- analysis has  $\chi = 42.668$ ,  $p = 0.00$ ; ( $p$  value  $<.05$ ), so null hypothesis is rejected and can be inferred that awareness and usage of payment banks are significantly associated.

### 4.4 Purpose of using Payment Banks

To understand the different purposes of using payment banks, multiple choice question was asked to respondents and the mean values inferred that most of the respondents use payment banks to make bill payments (mean value-1.565), recharge (mean value-1.62), ticket booking and shopping in order (mean value-1.75). There are some other usages also like to book hotel or travel, payment for insurance premium and school fees payment.

#### 4.5 Association of usage of Payment Banks with Various Demographic Variables

##### Hypothesis-2

**H2:** There is significant impact of various demographic factors like occupation, annual income, and education on usage of payment bank.

**Table 3.** Impact of demographic factors on usage of payment banks

Demographic Variables	Value	df	Sig	p=.05	Analysis
Occupation	20.219	8	0.0100	Reject H0	Usage of payment bank is dependent on Occupation
Annual Income	38.887	8	0.0000	Reject H0	Usage of payment bank is dependent on Annual income
Education	31.963	8	0.0000	Reject H0	Usage of payment bank is dependent on education

To analyse the impact of demographic variables on usage of payment bank; Chi-square was applied. As per the analysis respondents' occupation, annual income and education had significance p values ( $<0.05$ ) so these factors have significant impact on usage of payment bank.

#### 4.6 Association of Frequency of usage with Various Demographic Factors

##### Hypothesis-3

**H3:** There is significant impact of age, income, gender and marital status on frequency of usage of payment bank

To analyse the impact of demographic variables on frequency of usage of payment bank; Chi-square was applied.

From the analysis, it can be inferred that age and annual income has significance value ( $p<0.05$ ) and have impact on frequency of using payment bank.

#### 4.7 Association between Monthly Spending through Payment Bank and Demographic Factors

##### Hypothesis-4

**H4:** There is significant association between average monthly spending through payment bank and annual income, marital status, age, gender, occupation.

Analysis (Table 3), found that annual income and age both have ( $p<0.05$ ) and have impact on average spending through payment bank. Factors like marital status, gender and occupation are not affecting the monthly spending.

## 5. Conclusion and Managerial Implication

To infuse the financial inclusion, payment banks have been introduced in India and they are more innovative and transformative in nature compared to other categories of banks. The usage of payment banks/online application for money transactions received significant rise during demonetization. The payment banks show a rapid growth and identified dimensions for the usage of payment banks are; user friendly, convenience, cost effectiveness, security and easy cash management.

This research notably contributes to the existing body of literature mentioned further. People look for the aforesaid factors while they transact through payment banks. The most important factors among these factors are 'Ease to Use', 'Customer Service', 'Easy Accessibility', 'Privacy' and 'Instant Refund'. These factors must be strengthened and made stronger. It is observed that most of the people use Paytm, Freecharge and Jio money payment banks to transact and awareness has impact on the usability of payment banks for bill payment, recharge, ticket booking and shopping. Considering the demographic factors and its impact on the occupation, annual income and education on the usage of payment banks whereas age and annual income both impact the frequency of usage and average spending through payment banks. Spending on payment banks has significant relation with monthly income, age and occupation.

Most of the households in India today have dual spouse income. Since, both the spouse work, hence there is little time to go banks for availing its services. Also, the timings of banks are within the working hours which make it more difficult. Reserve Bank of India and the owners of

payment banks in India must try linking and extending banking services with payment banks. It is observed that most of the respondents feel the same. KYC can be used to check the credibility of the user to avoid fraud cases. This will help people to use smart banking systems rather than traditional branch wise banking. There are large numbers of rural areas in the country where bank branches are less. People residing in rural and the migrants need to often send money home which is usually done in cash with help of some traveler. Hence, the usage of bank account reduces. Marketer must try spreading awareness and impart knowledge to this segment related to usage of payment banks and its features which will enhance the banking operations.

Marketers must also provide more secured and transparent transactions to boost up payment banks usage as people trust the traditional banking systems. The penetration of payment banks can be enhanced by reducing the difficulty of digital transaction, changing perception of customers related to it and promoting cashless transactions. Most of the retailers do not have the facility of digital transaction. If a customer wants to make cashless transaction, aforesaid reason becomes hindrance. Marketers must tie-up with retailers and promote usage of payment banks for convenient cashless transactions.

Payment banks must link up with some major financial institutions and provide some sort of offers, discounts, and schemes to increase its usage. All this will lead to rapid growth and more money into banking system. There are many bottlenecks and challenges which need to be addressed in terms of real benefits, technology, safety, perception, etc. The current users of this facility are the early adopters and majority who are using it because of ease of transaction, time convenience and most importantly cashless transaction. Security concern of users should be answered by marketers soon upgrading their systems. Government, banks and marketers should communicate and create awareness and knowledge regarding payment banks, its importance and usability to increase subscribers or users which will increase adoption of this system.

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